California Environmental Protection Agency

Air Resources Board

Final Statement of Reasons for Rulemaking

Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER ADOPTION OF

AMENDMENTS TO THE REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS

Public Hearing Date: December 16, 2010
Agenda Item No. 10-11-2

October 28, 2011

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I.

INTRODUCTION

In this rulemaking, the Air Resources Board (ARB or Board) has adopted proposed revisions to the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (mandatory reporting regulation or MRR). The regulation was originally developed pursuant to the California Global Warming Solutions Act of 2006 (the Act), and adopted by the Board in December 2007. The proposed revisions to the regulation are necessary to support a California greenhouse gas (GHG) cap-and-trade program and to harmonize with the U.S. Environmental Protection Agency (U.S. EPA) federal mandatory GHG reporting requirements contained in Title 40, Code of Federal Regulations (CFR), Part 98. The revisions are also necessary, and authorized, to "prepare, adopt, and update" California's inventory of emissions related to climate change formerly conducted by the State Energy and Natural Resources Conservation and Development Commission pursuant to Chapter 8.5 (commencing with Section 25730) of Division 15 of the Public Resources Code. (California Health & Safety Code sections 39600, 39601, 39607, 39607.4, and 41511).

On October 28, 2010, ARB issued a notice of public hearing to consider the proposed regulation at the Board's December 16, 2010 hearing. A "Staff Report: Initial Statement of Reasons for Rulemaking" (Staff Report or ISOR) was also made available for public review and comment starting October 28, 2010. The Staff Report, which is incorporated by reference herein, described the rationale for the proposal. The text of the proposed regulation was included as Appendix A to the Staff Report. These documents were also posted on ARB's internet web site at: http://www.arb.ca.gov/regact/2010/ghg2010/ghg2010.htm.

On December 16, 2010, the Board conducted a public hearing to consider the staff's proposal for adoption. Written and oral comments were received at the hearing. At the same hearing, the staff presented modifications to the regulation as originally proposed in the Staff Report in response to comments received since the Staff Report was published. The Board adopted Resolution 10-43, approving the proposed regulation for adoption with the modifications proposed by staff in Attachment B of the resolution, and with modifications necessary and appropriate to clarify requirements, harmonize reporting, and to address stakeholder comments. Resolution 10-43 directed the Executive Officer to adopt the modified regulations after making the modified regulatory language available for public comment for a period of at least 15 days, in accordance with Government Code section 11346.8(c), and to make such additional modifications as may be appropriate in light of the comments received, or to present the regulation to the Board for further consideration if warranted in light of the comments.

A "Notice of Public Availability of Modified Text," together with a copy of the full text of the regulation modifications, with the modifications clearly indicated, was provided to the public and affected stakeholders on July 25, 2011, for a comment period from

July 25, 2011 to August 9, 2011, pursuant to Government Code section 11346.8. The comment period was extended two additional days, to August 11, 2011. Based on comments received, a second 15-day comment period with additional revisions to the regulation was provided for public comment. This second “Notice of Public Availability of Modified Text” and the regulation modifications, with the modifications clearly indicated, were released on September 12, 2011, with the deadline for public comments on September 27, 2011.

This Final Statement of Reasons for Rulemaking (FSOR) updates the Staff Report by identifying and explaining the modifications that were made to the original proposal. The FSOR also summarizes the written and oral comments received during the rulemaking process and contains ARB's responses to those comments. Modifications to the original proposal are described in Section II of this FSOR entitled "Modifications Made to the Original Proposal."

The Executive Officer subsequently issued Executive Order No. R-11-014 on October 28, 2011, adopting the regulation with the modifications described in Section II of this FSOR.

Fiscal Impacts on Local Government and School Districts

The Executive Officer has determined that the proposed regulatory action will result in nondiscretionary costs for local agencies (if they operate the type of facility that is required to report), and may impose a mandate, as defined in Government Code section 17514. However, the mandate is not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, because the costs would apply to all operators of covered facilities, not just local agencies. The Board has also determined that this regulatory action will not create costs or impose a mandate upon any school district, whether or not it is reimbursable by the State pursuant to Part 7 (commencing with section 17500), division 4, title 2 of the Government Code.

Approximately 100 public local government agencies are subject to the current GHG reporting program, such as certain county or city owned sewage treatment works or landfills, local municipal utility districts or electric retail providers. The proposed regulation reduces costs to local government agencies from the baseline case of maintaining the existing California GHG reporting regulation. This is because the proposed regulation reduces duplication between California and federal GHG reporting programs, eliminates reporting by power plants emitting less than 10,000 metric tons of carbon dioxide equivalent (CO_2e), and simplifies reporting requirements for smaller facilities and electricity retail providers. Statewide, the overall savings to local government entities are approximately $2 million, and the savings to state government entities are approximately $50,000 over the 10-year time horizon using a 5% discount rate. A full analysis is provided in Section VI of the Staff Report.

Incorporation by Reference

The following documents are incorporated into the regulation by reference: *Mandatory Reporting of Greenhouse Gases; Final Rule*., 40 Code of Federal Regulations (CFR) Parts 86, 87, 89, 90, 94, and 98 (October 30, 2009); *Mandatory Reporting of Greenhouse Gases from Magnesium Production, Underground Coal Mines, Industrial Wastewater Treatment, and Industrial Waste Landfills; Final Rule*., 40 CFR Part 98 (July 12, 2010); *Mandatory Reporting of Greenhouse Gases; Final Rule* (Corporate Parent/NAICS Code Amendments), 40 CFR Part 98 (September 22, 2010); *Mandatory Reporting of Greenhouse Gases; Final Rule (Technical Corrections, Clarifying and Other Amendments to Certain Provisions of the Mandatory Greenhouse Gas Reporting Rule)*, 40 CFR Parts 86 and 98 (October 7, 2010); 40 CFR Part 75 (July 1, 2009); 40 CFR Part 60, subpart A, §60.18(i)(1) and (2) (revised as of July 1, 2009); *The American Association of Petroleum Geologists Bulletin*, V. 75, No. 10, pp. 1644-1651 (October 1991); American Society for Testing and Materials (ASTM) D388, *Standard Classification of Coals by Rank (*September 2005); ASTM D4806, *Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel* (August 2008); ASTM D6751, *Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels* (October 2008); and, *Year 2005 Gulfwide Emission Inventory Study (GOADS)*, U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, MMS 2007-067 (2007).

In addition to the documents listed above, the proposed regulation also incorporates by reference two software programs: *Production Tank Model – A Program for Estimating Emissions from Hydrocarbon Production Tanks – E&P Tank Version 2.0*, American Petroleum Institute (2000) and *GRI-GLYCalc™ Version 4.0*, Gas Technology Institute (2008).

As a result of the first 15-day changes and based on updates to the U.S. EPA GHG Reporting Rule and a clarification to calibration requirements, staff added the following additional documents for incorporation by reference: *Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems, Final Rule* (U.S. EPA, 40 CFR Part 98, November 30, 2010); *Mandatory Reporting of Greenhouse Gases, Final Rule* (U.S. EPA, 40 CFR Part 98, December 17, 2010); *Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems, Final Rule, Grant of Reconsideration* (U.S. EPA, 40 CFR Part 98, April 25, 2011); *Standard Test Method for Butadiene Purity and Hydrocarbon Impurities by Gas Chromatography* (ASTM D2593-93, Reapproved 2009), *EIA Oil and Gas Field Code Master List* (U.S. Energy Information Administration, 2009); and *Measurement of fluid flow by means of pressure differential devices inserted in circular-cross section conduits running full – Part 2: Orifice plates*. (ISO 5167-2, March 1, 2003). These documents are available upon request for review.

These documents were incorporated by reference because it would be cumbersome, unduly expensive, and otherwise impractical to publish them in the California Code of

Regulations (CCR). In addition, many of the documents are copyrighted, and cannot be reprinted or distributed without violating the licensing agreements. The documents are lengthy and highly technical test methods and engineering documents that would add unnecessary additional volume to the regulation. Distribution to all recipients of the CCR is not needed because the interested audience for these documents is limited to the technical staff at a portion of reporting facilities, most of whom are already familiar with these methods and documents. Also, the incorporated documents were made available by ARB upon request during the rulemaking action and will continue to be available in the future. The documents are also available from college and public libraries, or may be purchased directly from the publishers.

Consideration of Alternatives

The regulation was the subject of discussions involving staff, representatives of the affected businesses and agencies, and other interested members of the public. A discussion of alternatives to the initial regulatory proposal is provided in Chapter VII of the Staff Report.

Alternatives to the proposed regulation that were considered include: taking no action, retaining the existing rule, modifying the existing rule to support ARB program needs, directly adopting the U.S. EPA regulations for GHG reporting, and providing various modifications to the verification process. For the reasons set forth in the Staff Report, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that none of the alternatives identified and brought to the attention of the agency or otherwise considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, than the action taken by the Board.

II.

MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL

Various modifications to the regulation adopted December 7, 2007 were proposed October 28, 2010. Additional modifications were made to address comments received during the 45-day public comment period, and to clarify the regulatory language. These modifications are described below. In addition, the Board directed staff to modify the proposal as outlined in Attachment B of Board Resolution 10-43. These changes include relatively minor adjustments regarding applicability, abbreviated reporting, enforcement, conflict of interest for verification bodies, and the role of air districts. These items are discussed more fully below.

A Notice of Public Availability of Modified Text, together with a copy of the Mandatory Reporting Regulation with modifications clearly indicated, was posted on July 25, 2011, for period of public review and comment through August 11, 2011. A Second Notice of Public Availability of Modified Text, together with a copy of the Mandatory Reporting Regulation with additional modifications clearly indicated, was posted on September 12, 2011, for a period of public review and comment through September 27, 2011. For each of these postings, notification was sent to persons who have expressed interest in the regulation during the course of rule development and review, including all individuals described in subsections (a)(1) through (a)(4) of section 44, Title 1, CCR. By these actions, the modified regulations were made available to the public for supplemental comment periods pursuant to Government Code section 11346.8.

The following summary identifies substantive changes made to the original regulation amendments proposed on October 28, 2010, but the list does not identify or summarize all changes made. All specific changes made to the MRR since December 7, 2007 are displayed in underline/strikeout formatting, and are available here: http://www.arb.ca.gov/regact/2010/ghg2010/ghg2010.htm.

First Availability of Modified Text

Modifications to the regulations originally published October 28, 2010 were made available to the public for comment on July 25, 2011. The major changes are summarized below.

A. Modifications to Subarticle 1 and General Requirements for Greenhouse Gas Reporting

This section of the regulation provides the general reporting requirements applicable to reporters. Below is a summary of some modifications to the regulation that apply to multiple sectors or reporting categories.

Modifications to Section 95100. Table of Contents.

Section 95158 from the Table of Contents was deleted to reflect the deletion of this section from the regulation.

Modifications to Section 95100.5. Purpose and Scope.

A foundation of the ARB Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions is the United States Environmental Protection Agency (U.S. EPA) GHG Reporting Rule. To maintain consistency with the U.S. EPA requirements, and as directed by the Board in Resolution 10-43, section 95100.5(c) of the proposed ARB regulation was updated to incorporate by reference revisions to the U.S. EPA regulation promulgated after the original ARB proposal was released. Language was also added to clarify that reporting entities must follow the requirements of the ARB regulation where any incorporated provisions of the U.S. EPA GHG Reporting Rule appear to conflict with it.

Modifications to Section 95101. Applicability.

New language was added to clarify what facility and supplier types have an emissions threshold, and what the threshold is, in relation to the U.S. EPA regulation.

For the purposes of "Abbreviated Reporting," the requirement to include process, fugitive, or vented emissions in determining applicability was removed (§95101(b)). These revisions apply only to small facilities that meet the "Abbreviated Reporting" criteria, and were added in response to public comments and Board direction. Language was also added to §95101(b)(1) to clarify that process and vented emissions must be counted toward the 25,000 metric ton CO_2e threshold used in ARB's proposed California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, Including Compliance Offset Protocols (title 17, California Code of Regulations, section 95800 et seq.) (cap-and-trade regulation or cap-and-trade program). These revisions are necessary to ensure that reporting entities understand when they are subject to the regulatory thresholds.

The applicability requirements for fuel and CO_2 suppliers were modified to remove producers of biomass-derived transportation fuels from a reporting obligation, because the information they provide can be obtained through their compliance with the Low Carbon Fuel Standard. In addition, language was added to clarify that exports from California by carbon dioxide suppliers must be included when calculating emissions relative to the reporting threshold (§95101(c)).

The regulation was modified to exclude reporting of fugitive emissions from farms, livestock operations, and landfills (§95101(f)). This is consistent with original staff intent and addresses stakeholder comments received. In addition, language was added to clarify which source categories listed in the U.S. EPA GHG Reporting Rule are excluded from reporting under California's reporting regulation. This modification is necessary to

clarify which source categories listed in the federal rule are required to report under California's regulation. For reporters that no longer meet applicability requirements based on GHG emissions levels, the requirement for continued reporting was reduced from 5 years to 3 years (§95101(h)), as this is sufficient to document the emissions reductions.

Modifications to Section 95102. Definitions.

A number of definitions in section 95102 were added, deleted, or modified. Definitions were deleted because the terms defined are no longer used in the regulation. Some of the new or modified definitions are necessary to implement changes to electricity sector reporting requirements. Additional changes were made for consistency with changes in proposed regulatory programs, and with changes made by U.S. EPA in rulemakings subsequent to the initial staff proposal. Several other definitions were added or modified to improve clarity.

Modifications to Section 95103. Greenhouse Gas Reporting Requirements.

Several changes were incorporated regarding timing and schedules for reporting in response to public comments received and for regulatory program needs. Based on Board direction in Resolution 10-43 and to assist with the transition to new reporting requirements for smaller facilities (between 10,000 and 25,000 metric tons CO_2e), the initial reporting deadline for these smaller facilities was extended by one year, until June 1, 2013. This change is only for "Abbreviated Reporting" facilities that emit less than 25,000 metric tons of CO_2e per year, and does not apply to facilities which are already reporting generated electricity (§95103(a)(7)). Abbreviated Reporting requirements were also reorganized and consolidated for clarity in section 95103(a). Also, for Abbreviated Reporting, inclusion of process, fugitive, and vented emissions are no longer required for determining applicability or for reporting (§95101(b) and §95103(a)).

To support overall regulatory program needs, the verification deadline was set to September 1 for all reporting entities. This shortens the verification period by one month for electric power entities (§95103(f)). ARB believes that with careful attention to the process, the revised deadline will be workable, since the volume of data subject to review is reduced through the revisions to section 95111. This change is necessary to ensure that verification is completed within the timeline required by the cap-and-trade regulation.

Several requirements were clarified with respect to reporting in 2012, in section 95103(h). Because the new regulation is not in effect in 2011, the year for which emissions will be reported in 2012, the regulation provides facility operators the option of reporting under U.S. EPA requirements the first year, regardless of whether monitoring systems or procedures are in place that may be needed for separate California requirements. In addition, the more stringent ARB missing data substitution requirements are not to be used for 2012 reporting, but must be used for 2013 reporting. These changes are proposed in response to stakeholder comments and are

necessary to ensure reporting entities understand when the requirements of this article are in effect.

Language was added to reporting requirements for biomass fuels. Clarifying paragraphs were added at §95103(j)(1)-(3) to address stakeholder concerns related to solid fuels, including forest-derived wood and wood waste, and to indicate that the measurement accuracy requirements of §95103(k) apply to any device used to measure biomass fuels carrying a compliance obligation. End users of solid biomass would report the mass of fuel consumed by fuel type, and end users of forest biomass would also report fuel supplier contact information. Facilities that use CEMS or steam to report emissions would not have to report emission by fuel type, however. These revisions are needed not only to respond to stakeholder comments, but also to clarify reporting requirements for biomass fuels.

Section 95103(k) was modified to more fully specify the measurement accuracy requirements that would apply when fuels are subject to a compliance obligation under the cap-and-trade regulation. The basis of these requirements was previously included by reference as part of the U.S. EPA's GHG reporting rules. However, with the December 17, 2010 revisions to the U.S. EPA rule, it was necessary to directly incorporate many of the U.S. EPA requirements into the ARB regulation while modifying them to ensure measurements are carried out with sufficient accuracy to support a cap-and-trade program. Language was also added to allow fuel measurement accuracy to be demonstrated in lieu of calibration at continuously operating facilities where calibration is not feasible.

In response to stakeholder comments, the specific requirement to carry out weekly fuel monitoring was deleted (previously at §95103(l)), but language was added to the GHG Monitoring Plan requirements in section 95105 to require a fuel monitoring plan "to verify on a regular basis the proper functioning of fuel measurement equipment that is subject to the accuracy requirement of this article."

A new paragraph was included in section 95103(l) that clarifies the need for separate verification of product data that are reported as specified in Subarticle 2. Product data are used to support allowance allocation and benchmarking in the cap-and-trade program, so evaluations of conformance and material misstatement that are separate from those used for emissions are required.

Modifications to Section 95104. Greenhouse Gas Emissions Data Report.

Section 95104(a) was modified to include reporting of readily available Energy Information Administration and California Energy Commission identification numbers, as applicable. This is necessary to assist data analysis for multiple facility types. Section 95104(b) was also modified to correct an oversight in the publicly noticed October 2010 version as to which text was supposed to be italicized. Section 95104(d) was better organized to clarify the reporting requirements for purchases of electricity or thermal

energy. Requirements were added to require reporting of electricity provided or sold, and thermal energy provided or sold, in order to support full energy balance analysis.

An additional sentence was added to section 95104(e) to specify that reporters are not responsible for submitting data that cannot be submitted via the ARB GHG reporting tool. This change is necessary to ensure that any unforeseen limitations in the reporting tool do not create a reporting non-conformance due the inability of reporters to enter and submit required data.

Modifications to Section 95105. Document Retention and Record Keeping Requirements.

In response to stakeholder comments, in the July 25 modified text staff proposed a reduction in the records retention requirement from 10 years to 7 years (95105(a)) for specified facilities. At the time staff believed this would be sufficient to meet program needs, and it is consistent with Western Climate Initiative (WCI) requirements. As described in the section on "Second Availability of Modified Text" below, staff on September 12 proposed to retain the original proposal's ten-year data retention requirement, to ensure data would be available to support the make-up provisions of the cap-and-trade regulation. The final regulation includes the ten-year provision.

In response to stakeholder comments, weekly fuel monitoring requirements for facilities were dropped from section 95103 (see above), but included as a recommended option in section 95105(c). The new language clarifies that this option would need to be exercised by operators who want to use the missing data substitution alternative for fuel consumption without load ranges in section 95129(d)(2).

Commenters pointed out that the GHG Monitoring Plan requirements, both those specified by U.S. EPA and those additional in the ARB staff proposal, did not apply to electric power entities. In response to these comments, language was added in lieu of those requirements for electric power entities, specifying information to include in a separate and more appropriate GHG Inventory Program (section 95105(d)).

Modifications to Section 95106. Confidentiality.

In response to public comments, section 95106 was modified to clarify that data which is reported to and has been released by U.S. EPA shall be considered public information by ARB.

Modifications to Section 95107. Enforcement.

Based on stakeholder comments and internal review, the enforcement language in section 95107 was modified to clarify the scope of these provisions. These modifications include clarification that violations based on each unreported metric ton of carbon dioxide equivalent and violations based on the failure to measure, collect, record, or preserve information required by the article are not also subject to a daily

violation. Language was also added to refer directly to the penalty factors in Health and Safety Code section 42403(b), which ARB must consider when determining any penalties.

Modifications to Section 95108. Severability.

No modifications were made to section 95108.

Modifications to Section 95109. Standardized Methods.

No modifications were made to section 95109.

B. Modifications to Subarticle 2 Reporting Requirements and Calculation Methods for Specific Types of Facilities, Suppliers, and Entities

This subarticle includes specific reporting requirements for each reporting sector, and for the stationary combustion reporting requirements that apply to multiple sectors. For several sectors, such as glass production, lime manufacturing, and pulp and paper manufacturing, modifications were made to the type of production data reported to better support ARB program needs. Revisions are summarized below.

Modifications to Section 95110. Cement Production.

Modifications were made to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation. In addition, the full missing data reporting requirements of sections 95110 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95111. Electric Power Entities.

Clarifying language was added to section 95111(a), including a specification that delivered electricity must be disaggregated by first point of receipt, that the purchase of generation from specified variable renewable resources and the replacement electricity delivered must be separately reported, and that qualified exports (as defined) must be separately reported. In the September 12 modified text, reporting requirements for variable renewable resources and replacement electricity were deleted. This clarifying language was necessary to ensure that reporting entities understand what and how they must report.

In response to public comment, the transmission loss factor was removed from the unspecified default emission factor (§95111(b)). Also removed was the requirement to apply a system emission factor to imported power supplied by multi-jurisdictional retail providers, to be consistent with WCI recommendations, In addition the compliance

obligation equation for multi-jurisdictional retail providers was corrected (§95111(b) and (d)).

To address stakeholder requests for clarity regarding which reported emissions carry a compliance obligation and which are needed for inventory purposes, an equation was added to section 95111(b) to show which reported emissions are covered under section 95852(b) of the cap-and-trade regulation. This equation was moved to the cap-and-trade regulation in the September 12 modified text. A second equation provided for calculation of the adjustment for replacement electricity associated with variable renewable electricity purchases (§95111(b)(5)). In the September 12 modified text, this equation was changed to a compliance adjustment for electricity purchased to comply with the state Renewable Portfolio Standard.

Language was added to section 95111(c) that permits certain retail providers (those who do not import power and are required to report only retail sales) to opt out of verification requirements as long as they consider their reported information to be non-confidential. Retail sales data are not tied to a compliance obligation and are generally treated as public information, so verification should not be necessary. The calculation for reporting emissions associated with electricity not delivered to California, applicable to retail providers who own or operate higher-emitting GHG facilities, was moved to section 95111(c) from section 95111(g)(5) to consolidate additional reporting requirements that apply to retail providers and not marketers. These modifications are necessary to provide clarity to reporting entities.

In section 95111(g), specification options were added for claims to specified source deliveries. Entities will report whether the power is from a source that has historically served California, is from a federally owned hydroelectric facility either under contract or delivered by an exclusive marketer, or is from a new facility or new capacity at an existing facility. This was intended to assist entities trying to report within the bounds of resource shuffling limitations in the cap-and-trade regulation, and inform the verification process. In the September 12 modified text, additional changes were made to clarify that the information categories in subsection 95111(g)(4) are to support general program monitoring and not intended as a “safe harbor” from the resource shuffling prohibition in the cap-and-trade regulation. Also in section 95111(g), clarifying language was added to the delivery tracking conditions for specified sources, and registration requirements for claims to specified facilities were modified in response to stakeholder comments.

Modifications to Section 95112. Electricity Generation and Cogeneration.

To simplify reporting for smaller units, this section of the regulation was modified to allow facilities with a total facility nameplate capacity less than one megawatt to report their electricity generating units as general combustion sources, instead of following the additional requirements of section 95112 (§95112).

Several new definitions were added to describe data elements for these additional reporting requirements, and some existing terms and definitions were revised for clarity and consistency (§95102). For clarity and to distinguish from cogeneration activities, the term “bigeneration” was added to describe electricity generating units that simultaneously produce electricity and steam from the same fuel source but do not utilize waste heat.

To support decisions related to allowance allocation and carbon cost compensation under the cap-and-trade program, reporting requirements were revised for energy production data to capture a complete energy balance at the facility and unit levels. These energy balance provisions are also consistent with AB 32 requirements to fully account for greenhouse gas emissions from all electricity consumed in the state. At the facility level, the additional reporting requirements include estimates of electricity purchased, destined for the grid, sold to particular end-users, and used by other on-site industrial processes and operations, as well as thermal energy that is purchased, and generated thermal energy provided or sold to an end-user, used to support power generation, or used for other on-site industrial processes and heating/cooling applications (§95112(a)). At the unit level, reporters will provide electricity net generation and gross generation, and thermal energy including total thermal output (§95112(b)).

To support analysis involving other data sets, reporting of commonly used facility identification information was included, such as CEC, EIA, PURPA Qualifying Facility, and CAISO ID numbers, where applicable to the facility. A requirement was also added to include facility classification information based on operational control, cogenerator-steam host relationships, and electricity sales. Included is a requirement to report basic information about electricity end-user and thermal hosts. For both cogeneration and bigeneration units, a requirement was added for reporters to provide a one-time submittal of an energy flow and metering diagram; this is necessary to serve as a point of reference for staff assistance to reporters, verification and audits, and will provide information about unit aggregation and waste heat utilization (§95112(a)).

For fuels data, the use of weighted or arithmetic average high heat value and carbon content was modified to make it consistent with the U.S. EPA GHG reporting rule. Additional specificity was included for fuel consumption relevant to bottoming cycle cogeneration units (§95112(b)).

A clarification was added to recognize that Part 75 and Subpart D facilities should follow the instruction in Subpart D, not Subpart C (§95112(c)). A requirement was added for geothermal facilities to report the steam quantity used when the information is used to estimate emissions, because this is needed to verify the emission estimates (§95112(e)).

For facilities that are already subject to mandatory GHG reporting and operate renewable energy generation systems greater than 0.5 megawatts, a requirement was added (§95112(g)) to report basic information on such systems, including nameplate

capacity and electricity sold to the grid or other end users. This applies to on-site solar installations, wind energy installations, and hydroelectric power generation at facilities that are not otherwise exempted under section 95101(f), and is necessary to complete the facility energy balance.

Modifications to Section 95113. Petroleum Refineries.

Changes were made to reflect the December 17, 2010 final action by U.S. EPA on Subpart Y (Petroleum Refineries). In particular, emissions from sour gas treated off-site would be subject to reporting, and a second calculation equation would be added for fluid catalytic crackers and fluid cokers.

Because of safety considerations related to sampling, the regulation was modified to allow use of an emission factor for coke drum venting in section 95113(f). This is a small source and the approach is consistent with the U.S. EPA rule.

Modifications were made to refinery product data reporting requirements to support section 95891 of the cap-and-trade regulation. In addition, the full missing data reporting requirements of sections 95113 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95114. Hydrogen Plants.

In order to be consistent with U.S. EPA requirements, language was added to clarify that third-party hydrogen producers are subject to reporting. (This language was removed in the September 12 modified text, in favor of a statement that the source category is defined consistent with the federal requirement.) A provision was also included in the data reporting requirements (section 95114(g)) where reporters calculate and report emissions associated with hydrogen production which are reported elsewhere in the reporting regulation. This modification is needed to avoid double-counting of these emissions. Also a requirement was added to report the annual mass of liquefied hydrogen produced, in section 95114(i).

Modifications were made to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation. In addition, the full missing data reporting requirements of sections 95114 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95115. Stationary Fuel Combustion Sources.

Staff reviewed numerous changes to the requirements for stationary fuel combustion sources approved by U.S. EPA on December 17, 2010, in consultation with other Western Climate Initiative jurisdictions. Most of these changes are proposed for inclusion in the ARB reporting regulation through incorporation of the December 17, 2010 action. The CO_2 quantification requirements in the October 2010 staff proposal

are retained; these are intended to ensure accurate calculation of carbon content data for variable fuels when selecting from the "Tiers" available in the U.S. EPA regulation (§95115(c)). Clarifying language was added to enable Tier 1 to be selected for pipeline quality natural gas measured in therms, and to maintain requirements to weight fuel use values when determining average annual carbon content.

Language was added to section 95115(e) to address the calculation of biomass fractions of fuels. Specifically, operators may analyze fuel samples rather than exhaust samples for partially biogenic fuels when the biomass fraction is unknown. This change addresses a stakeholder concern over the lack of sensitivity of exhaust sampling to smaller biomass fractions. Language and equations have also been added to clarify how to determine biomass fractions from mixtures of natural gas and biomethane or biogas.

In response to stakeholder comments, CEMS reporters were excluded from the fuel sampling requirements of 40 CFR §98.34. CEMS reporters would still be required to report annual fuel use information, as this information is essential for many ARB analyses (§95115(f)-(g)).

A new paragraph in section 95115(h) that applies some limitation to U.S. EPA's allowed use of aggregation of units with a common fuel source has been included. This revision is necessary because individual industrial sectors (delineated by source category in the federal regulation) may receive allowances in ARB's cap-and-trade program that are specific to each sector. Thus, emissions cannot be combined across source categories. As an example, emissions from a hydrogen plant operated by a petroleum refinery must be reported apart from the refinery's emissions.

Although U.S. EPA specifically exempted pilot lights from reporting in the final action published December 17, 2010, it is proposing that pilot light emissions be included in emissions reports. These emissions are sometimes significant enough to exceed *de minimis* levels. The language in section 95115(i) would allow engineering methods to be used to calculate these emissions when pilot lights are not metered. Pilot lights are a potential source of emissions reduction, so emissions quantification is necessary.

Modifications to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation, have been included. In addition, the full missing data reporting requirements of sections 95115 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95116. Glass Production.

Modifications to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation have been included. In addition, the full missing data reporting requirements of sections 95116 and 95129 will apply

starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95117. Lime Manufacturing.

Modifications to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation have been included. In addition, the full missing data reporting requirements of sections 95117 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95118. Nitric Acid Production.

Product data reporting requirements as paragraph 95118(d), which are necessary to support section 95891 of the cap-and-trade regulation have been added. In addition, the full missing data reporting requirements of sections 95118 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95119. Pulp and Paper Manufacturing.

Modifications to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation, have been proposed. In addition, the full missing data reporting requirements of sections 95119 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95120. Iron and Steel Production.

Modifications to certain product data reporting requirements, which are necessary to support section 95891 of the cap-and-trade regulation have been added. In addition, the full missing data reporting requirements of sections 95120 and 95129 will apply starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to Section 95121. Suppliers of Transportation Fuels.

In section 95121, text has been modified to clarify the original intent that “components” refers to the Blendstocks, Distillate Fuel Oils and Biomass-Based Fuels and Biomass that are mixed to make finished gasoline and diesel fuels, and not the individual molecular species that make up gasoline. Clarification was added to insure that denatured ethanol is reported as 100% ethanol, and the denaturant is not reported under the regulation. In addition, reporting requirements were removed for producers and importers of biomass-derived fuels, because this information is already reported to the ARB via the Low Carbon Fuel Standard (LCFS) regulation. However, position holders and enterers would still report biomass-derived fuels (consistent with Board of Equalization Reporting), but only limited verification of the data would be required.

These modifications are necessary to clarify reporting requirements and to ensure reporting entities understand what and how they must report.

Modifications to Section 95122. Suppliers of Natural Gas, Natural Gas Liquids, and Liquefied Petroleum Gas.

In response to stakeholder comments, modifications to section 95122 were included to clarify that system deliveries between capped local distribution companies (LDCs) are directly accounted for by the delivering and receiving LDCs. Emissions for non-system deliveries to capped entities would still be subtracted out separately by ARB (§95122(b)(3)-(5)). These modifications were included following discussions with stakeholders which clarified that there is no need for ARB to maintain responsibility for system delivery accounting, which can be adequately checked during the verification process. Provisions are included in section 95122(b)(6) to allow the use of emission factors and heat value data (Tier 2) for estimating emissions from natural gas that is not pipeline quality, if such emissions do not exceed 3 percent of total emissions estimated under section 95122. A high Btu gas emission factor (54.67 kg CO_2/MMBtu) found in the current regulation would be used for all gas above 1100 Btu/scf. Allowing the use of a Tier 2 method similar to pipeline quality natural gas reporting, instead of requiring a Tier 3 method, is necessary to reduce the complexity and burden of reporting for this small portion of emissions.
Certain product data reporting requirements were added as paragraph 95122(f). These revisions are necessary to clarify reporting requirements for product data and to support the cap-and-trade program, including, specifically, section 95891 of the cap-and-trade regulation.

Modifications to Section 95123. Suppliers of Carbon Dioxide.
Language was modified to apply the full missing data reporting requirements of sections 95123 starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

C. Modifications to Subarticle 3. Additional Requirements for Reported Data

Modifications to Section 95129. Substitution for Missing Data Used to Calculate Emissions from Stationary Combustion and CEMS Sources.

This section applies to reporting when certain required data sampling requirements cannot be met, and substitute data must be used to complete reporting. Clarification was added to affirm that the requirements in section 95129(d)(1)-(3) are optional for sources that are not required to meet the accuracy standard specified in section 95103(h) and for sources that do not utilize fuel consumption data for emission calculations. Language was added in section 95129 to clarify that the requirements of section 95129 do not relieve operators from complying with the other sections of the

article. This clarification was added to reduce confusion and address stakeholder comments.

In addition, the implementation date for the missing data provisions has been extended to the 2013 reporting year to allow for proper implementation of monitoring systems. Also, the missing data provisions apply only when the unit is combusting fuel, and they do not apply to units with CEMS, when fuel quantities are not used to estimate non-*de minimis* emissions. These changes were made in response to stakeholder comments.

Clarification was added to enumerate the various options available to facility operators when fuel meters malfunction. For example, they may substitute upstream or downstream meters, and strap-on meters may be used as an alternative for interim fuel measurement. Further clarification on using the "maximum potential fuel flow rate" has been added.

Language on cumulative missing data elements that specified that a nonconformance occurs when more than 20 percent of annual emissions cannot be calculated from directly measured data (previous §95129(j)) has been deleted. Changes in subarticle 4 allow for a qualified positive verification statement to be rendered when nonconformance does not result in material misstatement.

D. Modifications to Subarticle 4. Requirements for Verification of Greenhouse Gas Emissions Data Reports; Requirements Applicable to Emissions Data Verifiers

This subarticle provides the requirements for third-party verification of reporting entities' GHG emissions data reports. Several sections and subsections were modified in response to public comments, in order to synchronize deadlines between the ARB GHG Reporting Regulation and the cap-and-trade program, and in response to Board direction. Modifications to subarticle 4 were made in the following areas: the addition of product data to the verification process; the missing data requirements; the petition process for disagreements between verifiers and reporters; the procedures and timeframes for assigned emissions levels; biomass-derived fuel verification requirements; and requirements for Air Quality Management Districts and Air Pollution Control Districts.

Modifications to Section 95130. Requirements for Verification of Emissions Data Reports.

Modifications to section 95130 are proposed to further clarify when full verification services are required. These modifications are needed to ensure reporting entities and verification bodies understand the verification requirements.

Modifications to Section 95131. Requirements for Verification Services.

Section 95131 was modified to clarify that verification services include an assessment of both GHG emissions data and product data requirements for each GHG emission data report verified. This includes a product data verification statement and an emissions data verification statement. These changes were necessary to provide consistency with the GHG emissions and product data requirements in subarticles 2 and 5 and to support the cap-and-trade program.

In addition, section 95131(b)(8) was modified to clarify how verification bodies must check product data during their required data checks. This modification is needed to ensure that verifiers are reviewing product data consistent with the requirements for emissions data. The material misstatement requirements have been modified in order to ensure that verification bodies are conducting their material misstatement assessments consistently for emissions and product data. These modifications, formerly in section 95131(b)(14), are now found in section 95131(b)(12).

The missing data substitution verification requirements (formerly in section 95131(b)(16), now in section 95131(b)(14)) were modified to add more specificity to the verification requirements for verifiers who are reviewing GHG emissions data reports with missing data to be consistent with the requirements for missing data used to calculate emissions in section 95129.

In order to make the process of completing a verification report more clear for verifiers and reporting entities, modifications were made to section 95131(c)(3) to inform the verifier what must be included in the verification report. These changes are needed for clarity in the verification process. Modifications to the petition process for disagreements between verifiers and reporters in section 95131(c)(4) were modified to clarify the process and ensure it occurs within the timeframe needed to support the cap-and-trade program. These modifications include removing the requirement to get re-verified following an Executive Officer final determination. The procedures and timeframes for assigned emissions levels in section 95131(c)(5) were modified to clarify the process and ensure it occurs within the timeframe needed to support the cap-and-trade program. Additional language in section 95131(c)(3)(D) is proposed to specify how lead verifiers and lead verifier independent reviewers must meet their attestation requirements. This change is necessary to provide clarity to verifiers and to ensure consistency with attestation language in both the mandatory reporting regulation and the cap-and-trade regulation. The time provided for various verification-related activities was changed from five days to five *working* days based on public comments received.

Section 95131(i) includes the requirements for providing verification services for biomass-derived fuels. In response to public comments, detailed modifications to this subsection are included for the verification of biomass-derived fuels in the absence of a biomass-derived fuel certification program. These modifications are necessary to assist verifiers with the assessment of these fuels. Specific modifications clarify the verification

requirements of biogas and biomethane, urban, agricultural and forest wood waste, biodiesel and fuel ethanol, municipal solid waste and tires.

Modifications to Section 95132. Accreditation Requirements for Verification Bodies, Lead Verifiers, and Verifiers of Emissions Data Reports and Offset Project Data Reports.

Modifications are proposed to clarify that verification body accreditation applicants must include a list of any enforcement actions filed against the verification body along with their application (§95132(b)(1)(B)). This is necessary to ensure accurate applications are filed.

In addition, clarifications are proposed to the requirements for offset project specific verifiers in order to support cap-and-trade program needs (§95132(b)(5)(B)).

In order to streamline accreditation requirements, modifications to section 95132(c) are proposed to clarify the training and examination requirements for verifiers. These modifications are necessary to ensure consistency in services provided by verifiers.

Modifications to Section 95133. Conflict of Interest Requirements for Verification Bodies for Emissions Data Reports.

Attestation language has been modified in section 95133(e)(1)(F). This modification is necessary to provide consistency with attestation language used in other parts of the regulation. A new subsection 95133(h) regarding conflict of interest requirements for Air Quality Management Districts and Air Pollution Control Districts based on the Board's direction in Resolution 10-43 has also been included. The proposed language for section 95103(h) was included as Attachment B to Resolution 10-43 at the public hearing on December 16, 2010. In conjunction with the addition of section 95133(h), section 95133(d) has been modified to include conflict of interest self-evaluations submitted pursuant to section 95133(h) in the "medium" conflict of interest situations. This modification is necessary to clarify which conflict of interest situations are considered "medium."

E. Modifications to Subarticle 5. Reporting Requirements and Calculation Methods for Petroleum and Natural Gas Systems

This subarticle incudes the reporting requirements for petroleum and natural gas systems. The proposed changes were made in response to stakeholder comments and consultation, coordination with the Western Climate Initiative, harmonization with U.S. EPA requirements, and staff analysis. U.S. EPA finalized its reporting rule for Oil and Natural Gas Systems (Subpart W) on November 30, 2010, and staff worked with colleagues in other WCI jurisdictions to review the final rule. Much of the final U.S. EPA rule is now proposed for direct incorporation by reference, and staff has proposed deleting now-redundant language. However, staff has retained the rigor that is needed

for California's cap-and-trade program. Additional revisions are proposed that correct minor errors, provide clarification, and improve data quality.

Modifications to Section 95150. Definition of the Source Category.

Section 95150 has been modified to clarify that the source categories are specified in the U.S. EPA rule and that GHG emission reporting is required for natural gas booster stations in both the onshore natural gas processing and onshore natural gas transmission industry segments. This is necessary to harmonize with the November, 30, 2010 final U.S. EPA Subpart W and results in the removal of the pre-November 30, 2010 language.

Modifications to Section 95151. Reporting Threshold and Reporting Entity.

Section 95151 has been modified to clarify that operators of onshore petroleum and natural gas production facilities must apply the reporting threshold in section 95101 basinwide and report for each subset of fields as defined in the U.S. EPA rule. Clarification has been added that natural gas processing facilities must include owned or operated residue gas compression equipment in determining whether the facilities meet the reporting thresholds in section 95101. This is necessary to harmonize with the November, 30, 2010 final U.S. EPA Subpart W and results in the removal of the pre-November 30, 2010 language.

Modifications to Section 95152. GHGs to Report.

Section 95152 was modified to clarify that operators must report GHG emissions sources as required by the November 30, 2010 version of the U.S. EPA reporting rule and the modifications included in the remainder of subarticle 5. These modifications are necessary to harmonize with U.S. EPA requirements and result in the removal of pre-November 30, 2010 language.

Modifications to Section 95153. Calculating GHG Emissions.

In order to better align with the final U.S. EPA requirements, based on the Board's direction in Resolution 10-43 and in response to public comments, a number of the reporting methodologies in section 95153 were modified. These modifications are discussed briefly below:

In section 95153(a), reporting requirements for all high bleed natural gas powered pneumatic devices and pneumatic pumps were made identical to those for low bleed natural gas powered pneumatic devices in section 95153(b) until 2015. Beginning January 1, 2015, all natural gas consumption in high bleed devices must be metered. This approach allows operators significant lead time to either swap out high bleed devices and reduce emissions where possible or install the requisite metering.

In the case of emissions from Acid Gas Removal vents (section 95153(c)), reporters are limited to three of the four U.S. EPA methods. The computational equation for one of the methods was modified slightly to correct for errors which were introduced at high CO_2 concentrations. These changes do not modify prior data collection requirements. Similarly, the calculation equation for desiccant dehydrators in section 95153(d) was modified slightly for ease of use.

A second equation for wells equipped with plunger lifts in the Well Venting and Liquids Uploading section (section 95153(e)) was added to harmonize with the U.S. EPA requirements.

In the case of emissions resulting from well completions and well workovers (section 95153(f)), the same methodology for both conventional wells and those wells where hydraulic fracturing takes place has been adopted. In addition, clarification was added in this section to better operationally define sonic and subsonic flow regimes.

ARB proposed to limit choices to two of the five U.S. EPA computational methods for onshore production storage tanks (section 95153(i)) in the July 25 modified language. In response to public comment, this limitation was eliminated in the September 12 modified language.

Sections 95153(m) and (n) cover venting emission from centrifugal and reciprocating compressors respectively. In these sections the approach used by U.S. EPA has been modified in order to support the needs of the cap-and-trade program. Reporting requirements for compressors at booster stations in the natural gas processing and transmission sectors have been included but a compressor horsepower (hp) threshold was added. Reporters must use the more stringent U.S. EPA method for compressors with a rated horsepower of 250hp or greater, while for compressors less than 250hp, reporters may use the much simpler, emission factor-based U.S. EPA approach.

To account for a potentially significant source of overlooked GHG emissions, section 95153(z) requirements and methods to report methane (CH_4) emissions from “produced water” were included in the regulation. (Reporting for this source type has been deferred by U.S. EPA.)

Modifications to Section 95154. Monitoring and QA/QC Requirements.

In order to harmonize with U.S. EPA requirements, section 95154 was modified to clarify that operators must follow the monitoring and QA/QC requirements specified in the November 30, 2010 version of the U.S. EPA GHG Reporting Rule. This harmonization has resulted in the removal of pre-November 30, 2010 language.

Modifications to Section 95155. Procedures for Estimating Missing Data.

Language was modified to apply the full missing data reporting requirements of sections 95155 starting in the 2013 reporting year for 2012 data. Missing data substitution in 2012 will instead rely on the requirements in the U.S. EPA regulation.

Modifications to section 95156. Data Reporting Requirements.

The data reporting requirements in section 95156 have been modified to clarify which product data is needed to support ARB's cap-and-trade program. Language was added to make vented emissions sources operated by local distribution companies "reporting only" to correct double-counting of their fuel supplier emissions and to allow for the use of U.S. EPA methods to estimate these emissions.

Modifications to section 95157. Records that Must be Retained.

In order to harmonize with U.S. EPA requirements, section 95157 was modified to clarify that operators must follow the document retention requirements specified in the November 30, 2010 version of the U.S. EPA GHG Reporting Rule.

Modifications to section 95158. Default Emission Factor Tables.

Section 95158 is no longer necessary because the modifications in sections 95150-95157 explained above incorporate the default emission factor tables in the November 30, 2010 version of the U.S. EPA GHG Reporting Rule. As such, this section was deleted from the regulation.

Second Availability of Modified Text

Further modifications to the regulations originally published October 28, 2010 were made available to the public for comment on September 12, 2011. The changes are summarized below.

A. Modifications to Subarticle 1 and General Requirements for Greenhouse Gas Reporting

This section of the regulation provides the general reporting requirements applicable to reporters. Here, modifications to the regulation that apply to multiple sectors or reporting categories are summarized.

Modifications to Section 95100. Table of Contents.

No modifications were made to this section.

Modifications to Section 95100.5. Purpose and Scope.

Section 95100.5 was modified to clarify that the mandatory reporting regulation will support greenhouse gas (GHG) inventory as well as regulatory programs.

Modifications to Section 95101. Applicability.

Language in section 95101(a)(1)(A) was modified to improve clarity regarding the applicability of certain facilities with stationary fuel combustion or geothermal electricity generation. The revised language more clearly identifies these facilities for reporting. Section 95101(a)(1)(B) was modified to rectify ambiguity related to suppliers, which are fully specified in section 95101(c).

The language describing the 25,000 metric ton threshold in section 95101(b)(1) was modified by adding the new term “covered emissions.” The term “products” or “product” in section 95101(c) was replaced with “fuels” or removed to avoid confusion with the product data reporting and verification requirements used to support allowance allocation under the cap-and-trade program. A specific exclusion was added in section 95101(f) for irrigation pumps, based on comments received, to make it clear that the exclusion applies to all agricultural pumps, and not only portable agricultural pumps.

Subsection 95101(h)(4) was added to clarify the requirements for cessation of reporting specific to electric power entities that import or export electricity.

Modifications to Section 95102. Definitions.

A number of definitions in section 95102 were added, deleted, and modified. Some of the new or modified definitions are necessary to implement changes to reporting requirements, particularly in the electricity sector. Additional changes were made for consistency with changes in proposed regulatory programs. Several other definitions were added or modified to improve clarity. Definitions were deleted when the terms were no longer used in the regulation.

Modifications to Section 95103. Greenhouse Gas Reporting Requirements.

In section 95103 and elsewhere, the phrase “three-year” in reference to compliance periods under the cap-and-trade regulation was removed, since the first compliance period will now be two years in length. (The only exception to this removal is in section 95103(k), where measurement device re-calibration would occur in subsequent compliance periods.)

For abbreviated reporting, section 95103(a)(1) was modified to require reporting of natural gas supplier name, natural gas supplier customer identification number, and annual billed fuel use in MMBtu. This change is needed to track fuel use and providers in order to support verification and the cap-and-trade program.

Changes regarding timing and schedules were incorporated in response to public comments received and for regulatory program needs. The annual reporting deadline for facilities and suppliers was changed from April 1 to April 10 in section 95103(e). This is to allow additional time for reporting and to provide a brief additional period following the U.S. EPA greenhouse gas reporting deadline. The deadline for electric power entities and facilities eligible for abbreviated reporting remains June 1.

Section 95103(h) was clarified such that reporters may use best available data for reporting emissions in 2012 (on 2011 data) if they are not subject to reporting 2011 emissions under the U.S. EPA greenhouse gas emissions reporting rule. This change was required because it is possible that these facilities would not have had the systems and practices in place in 2011 that would enable them to meet the federal requirements for reporting in 2012. The change does not apply to electric power entities, who are not covered by the U.S. EPA regulation. These changes were necessary to clarify for stakeholders how reporting will be conducted in 2012 for 2011 data.

Section 95103(i) was modified because as previously written, certain emissions could potentially be excluded from being claimed as *de minimis*, even if the emissions met the intended criteria for *de minimis* emissions. The proposed revision provides further clarity and flexibility in designating *de minimis* emissions.

Section 95103(j) was modified to clarify that the focus of the subsection is on *combusted* biomass-derived fuels, and to rename “Other Biomass” to “non-exempt biomass-derived fuel” (defined in section 95102), because the term “Other Biomass” lacked specificity. Clarifications were also added to the section to provide specific documentation during verification to demonstrate the receipt of eligible biomethane. These changes were made in response to comments and to improve clarity.

The measurement accuracy and calibration requirements specified in section 95103(k) were modified to clarify that the requirements also apply to product measurement devices. It was clarified that the requirements do not apply to fuel measurements for stationary fuel combustion units when a CEMS is used under Part 75 or Part 60. Additional flexibility in the calibration requirements was provided by including options for using national government or international body standards or original equipment manufacturer’s specifications to meet the requirements. Also section 95103(k)(9) was modified, related to the timeline for a calibration postponement request for 2012 only, to make it concurrent with the reporting deadline. Section 95103(k)(11) was added to clarify the accuracy requirements for reporters using inventory, stock or tank drop measurements. These changes were made in response to stakeholder comments and to improve clarity.

Modifications to Section 95104. Greenhouse Gas Emissions Data Report.

Clarification was added in section 95104(d) that for the purpose of reporting energy input and output, facility operators may exclude electricity passed through the facility (electricity generated outside the facility and delivered into the facility with final

destination outside of the facility). Operators also have the option to exclude electricity consumed by operations or activities without any emissions, energy outputs, or product outputs, and that are neither a part of nor in support of operations or activities that are covered by this regulation. These changes were made in response to stakeholder comments and to improve clarity.

Modifications to Section 95105. Document Retention and Record Keeping Requirements.

An extension of the period for which reporting entities with a compliance obligation must maintain records has been proposed. Consistent with the original 45-day proposal, records would be kept for a period of ten years from each emissions data report certification. After further consideration of this question following the first 15-day proposal (in which a seven year period was proposed), staff decided ten years would be needed to support the provisions in section 95858 of the cap-and-trade regulation for making up for under-reporting in a previous compliance period.

Further clarification was added to the requirements in section 95105(c) such that monitoring plans are not required until the reporter has covered emissions equal to or exceeding 25,000 metric tons of CO_2e per year. Clarification was also provided in section 95105(d), GHG Inventory Program, to limit the requirements to electric power entities that import or export electricity. Specification for required records was also added. These changes were made to improve clarity and address comments.

Also in this section, the “three-year” language in reference to compliance periods has been removed.

Modifications to Section 95106. Confidentiality.

No modifications were made to this section.

Modifications to Section 95107. Enforcement.

The provisions of section 95107 have been reorganized, such that the previous subparagraph 95107(f), which sets forth how penalties may be assessed, is now listed as subparagraph 95107(a). Other provisions were re-lettered in conformance with this re-organization. This change was made to ensure that the manner in which penalties may be assessed is clear and listed at the front of described violations. In addition, it has been explicitly stated in this subparagraph (now 95107(a)) that when seeking any penalty amount, ARB will consider any pattern of violation, and the size and complexity of the reporting entity’s operations, in addition to all other relevant circumstances and the other criteria in Health and Safety Code section 42403(b). This change was made in response to stakeholder comments regarding compliance challenges for complex operations.

Subparagraph (b) (formerly subparagraph (a)) was clarified such that each day or portion thereof that any report required by the article remains unsubmitted, is submitted late, or contains information that is incomplete or inaccurate is a "single," separate violation. This clarification was made in response to comments. The definition of "report" in this subparagraph has been modified, to clarify that "report" includes documents required to be submitted, rather than records.

In response to stakeholder comments, language was added to subparagraph (c) (formerly subparagraph (b)) indicating that any enforcement action under this subparagraph will not be initiated by ARB until after any applicable verification deadline for the pertinent report. This addition will provide reporting entities with some assurance that no enforcement action will be commenced while they undergo required verification, and provide ARB with time to assess reporting and verification activities during that period. However, this addition is not intended to relieve reporting entities of the obligation to submit accurate reports by the reporting deadline.

Based on stakeholder comments, several modifications to subparagraph (d) (formerly subparagraph (c)) are proposed, including removing a redundant phrase and specifying that any violation of this subparagraph relates to failures to measure, collect, record or preserve information "in the manner" required by the article, rather than simply the failure to measure, collect, record, or preserve information. Stakeholder concerns have been addressed by clarifying that failures resulting solely from maintenance or calibration required by the regulation will not result in a violation under this subparagraph.

Modifications to Section 95108. Severability.

No modifications were made to this section.

Modifications to Section 95109. Standardized Methods.

No modifications were made to this section.

B. Modifications to Subarticle 2 Reporting Requirements and Calculation Methods for Specific Types of Facilities, Suppliers, and Entities

This subarticle includes specific reporting requirements for each reporting sector, and for the stationary combustion reporting requirements that apply to multiple sectors. Substantive revisions are summarized below. Please refer to the attached proposed revisions to review all changes.

Modifications to Section 95110. Cement Production.

Based on a comment received from the cement industry, product data terminology used in section 95110(d) has been modified to make it more specific.

In response to comments, language was added to specify that reported cement substitutes would not be subject to review for material misstatement.

A clarification was added to section 95110(c) to limit missing data provisions to emissions calculations, since missing product data cannot be replaced under other requirements of the regulation.

The section also includes several typographical corrections. Additional comments raised by the cement industry are addressed in section 95115 and elsewhere.

Modifications to Section 95111. Electric Power Entities.

In response to comments received, edits and clarifications in section 95111(a) are included that are consistent with staff intent. These include clarifications on reporting delivered electricity, unspecified imported electricity, and specified imported electricity.

To address stakeholder comments common to the mandatory reporting regulation and the cap-and-trade regulation, necessary modifications to the data categories in subsection 95111(b)(5) were made consistent with modifications to subsection 95852(b) of the cap-and-trade regulation. The calculation for covered emissions is now provided in subsection 95852(b)(1)(B) of the cap-and-trade regulation to facilitate policy implementation, and this equation is now referenced by subsection 95111(b)(5) of the mandatory reporting regulation.

Staff coordinated with staff developing the cap-and-trade program to accommodate increased reductions in covered emissions while maintaining a rigorous reporting protocol for electricity imported into and consumed in California. The covered emissions adjustment previously restricted to variable renewable resources, resources that cannot meet the criteria for direct delivery of electricity defined in the proposed amendment, was broadened to include all procurements of electricity from eligible renewable energy resources located outside the state of California used to meet the requirements of California's Renewable Portfolio Standard (RPS) program.

Clarification was added to the calculation for a specified emission factor for geothermal electricity in subsection 95111(b)(2). These revisions in section 95111(c) more clearly specify which entities are subject to the requirements of the section. The equation in the section was also clarified.

Section 95111(g) was modified to accommodate reporting requirements for the RPS adjustment, including a provision to allow for facility registration information to be provided with the emissions data report and a 45 day reconciliation period subsequent to the report due date. The annual deadline to register facilities or units that directly deliver electricity to California remains February 1, to allow ARB sufficient time to calculate and publish the specified emission factors to facilitate timely reporting.

Modifications to Section 95112. Electricity Generation and Cogeneration.

Section 95112(c) was modified to more clearly indicate that 40 CFR Part 98, Subpart C and Subpart D operators are to follow 40 CFR Part 98 methods in reporting CO_2, CH_4, and N_2O emissions, with the exception of CO_2 from Subpart D/Part 75 units. For reporting CO_2 to ARB, an option has been included for Subpart D/Part 75 unit operators to choose either Part 75 or Part 98 methods. It was clarified that for operators that follow Part 75, if there are emissions from fuels combusted at Subpart D/Part 75 units that are not reported pursuant to Part 75, operators must use Part 98 methods or the *de minimis* provision in section 95103(i) to report those emissions. It was also clarified that for Subpart D units that combust a mixture of natural gas and biogas or have contractual delivery of biomethane, the operator is to use the method in section 95115(e) when reporting biogenic emissions. In addition, the definition of "cogeneration" in section 95102 was modified to clarify that the definition is not intended to include combined-cycle power plants. These changes were made in response to stakeholder comments and to improve clarity.

Modifications to Section 95113. Petroleum Refineries.

In response to comments and to support the cap-and-trade regulation, the product data reporting and verification requirements for petroleum refineries were modified in section 95113(l) to be more consistent with industry practices for measuring production efficiency. For reporting years 2012 and 2013 (2011 and 2012 data), refineries would be required to report their Solomon Energy Intensity Index values in addition to the previously specified product data. Language was added to specify that among products reported, only primary refinery products (defined in section 95102) would be subject to review for material misstatement. In addition, language was added to require refineries to report CO_2 carbon weighted tonne values (defined in section 95102) beginning in 2014.

An equation specified in the December 17, 2010 final U.S. EPA GHG reporting rule was added to improve harmonization with that rule. The equation provides a further option for calculation of CO_2 from flares.

Modifications to Section 95114. Hydrogen Production.

In response to comments, a provision was added specifying that emissions and output from hydrogen production must be reported separately from the emissions of an associated refinery. A provision allowing monthly sampling for standardized fuels and feedstocks has also been added. This will not result in a degradation of the reported data since the composition of standardized fuels and feedstocks is less variable than other fuels and feedstocks used in hydrogen production.

Clarification was added to more clearly specify that the source category definition is consistent with the federal GHG reporting rule. The previous separate delineation of

merchant hydrogen facilities is no longer needed following U.S. EPA's December 17, 2010 revisions.

Modifications to Section 95115. Stationary Fuel Combustion Sources.

In this section, and in other parts of the regulation, the term "mmBtu" was replaced with "MMBtu," which is more consistent with common engineering practice. The term MMBtu represents a "thousand-thousand" or a "million" British Thermal Units. (The term mmBtu as used in the U.S. EPA GHG reporting rule means the same thing.) In this, and other sections of the regulation, the term "Other Biomass CO_2" was replaced with "non-exempt biomass-derived CO_2" to provide additional clarity.

Section 95115(b)was modified to correct an error which would have applied the regulation too broadly for operators using continuous emissions monitoring systems (CEMS). For the purpose of determining biomass CO_2 emissions, section 95115(e)(3) was modified to clarify reporting requirements for reporting emissions for contractual deliveries of biomethane when emissions are not calculated using the fuel's heat content. Sections 95115(e)(3)-(5) were edited to clarify that the biomethane emissions calculation method can also be used for Subpart D units.

Language was added to section 95115(g) to clarify that devices used to measure fuel consumption for units for which a CEMS is used to report CO_2 emissions are exempt from the measurement device accuracy provisions of section 95103(k).

Section 95115(i) was modified to require reporting of emissions from pilot lights only if the pilot lights operate at least 300 hours per year. This change was made based on comments received and the difficulties in quantifying emissions from intermittent or start-up pilot lights. Language was also added to clarify that pilot lights may be aggregated for emissions calculation, and that pilot light calculations are not subject to the measurement device accuracy requirements of section 95103(k).

Section 95115(k) was modified to include not only the previous requirement to report natural gas providers and customer account numbers, but also the quantity of natural gas delivered in MMBtu. This is needed to evaluate that fuel deliveries (by suppliers) and fuel receipts (by users) are consistent.

Product data reporting requirements in section 95115(m) were modified in response to comments from gypsum and certain steel manufacturers.

Modifications to Section 95116. Glass Production.

Typographical corrections were made to section 95116(b) and (c).

Modifications to Section 95117. Lime Manufacturing.

A clarification was added to section 95117(c) to limit missing data provisions to emissions calculations, since missing product data cannot be replaced under other requirements of the regulation.

Typographical corrections were made to section 95117(b) and (c).

Modifications to Section 95118. Nitric Acid Production.

Typographical corrections were made to section 95118(b) and (c).

Modifications to Section 95119. Pulp and Paper Manufacturing.

The specifications for reporting product data in section 95119(d) were modified slightly to include reporting of the type of process used for producing paper tissue, if applicable. These changes were made in response to public comment.
Typographical corrections were made to section 95119(b) and (c).

Modifications to Section 95120. Iron and Steel Production.

Typographical corrections were made to section 95120(b) and (c).

Modifications to Section 95121. Suppliers of Transportation Fuels.

To avoid potential double counting issues, sections 95121(a)(2) and (b)(1) were modified such that enterers who deliver fuel directly to the bulk transfer/terminal system would not be required to report the fuel volumes delivered. Due to this change, reporting by the enterer of the entity in the bulk transfer/terminal system receiving the imported fuel is no longer necessary.

In section 95121(b)(1), it was specified that position holders supplying diesel or biodiesel fuel who are the sole position holder at a terminal must report either using a meter subject to the requirements of 95103(k) or billing invoices from the delivering entity. To improve clarity, new emissions factors for mobile source CH_4 and N_2O emissions were added to section 95121(b)(3) because the previous emission factors from Table C-2 of 40 CFR Part 98 were for stationary sources.

The word “product” was replaced with “fuel” throughout section 95121 to avoid confusion with the product data reported elsewhere in the regulation to support provisions of the cap-and-trade regulation.

Modifications to Section 95122. Suppliers of Natural Gas, Natural Gas Liquids, and Liquefied Petroleum Gas.

To simplify reporting and computation, and to provide more consistent data, section 95122 was modified to provide for calculations in terms of MMBtu of gas, rather than Mscf of gas.

Section 95122(a)(2) was modified to clarify the inclusion of intrastate pipelines, which have always been included in 95101(c)(7).

To be consistent with refineries reporting liquefied petroleum gas under section 95121, section 95122(b)(1) and (b)(9) were modified to require natural gas liquid fractionators and liquefied petroleum gas consignees to use emission factors from Table MM-1 of 40 CFR Part 98. This change was necessary to provide consistency across these two provisions.

The language in section 95122(b)(3) was modified to clarify what should be included for on-system deliveries. Section 95122(b)(5) was modified to clarify how the annual HHV is calculated and that the alternative methods for calculation of emissions in paragraphs (a) and (b) are only used for the portion of fuel not meeting pipeline quality standards, and not all fuel. These changes were made in response to stakeholder comments and to improve clarity.

Section 95122(d)(3) was modified to require reporting of an ARB ID number, and annual, rather than monthly, data. Section 95122(d)(4) was modified to clarify the reporting requirements for intrastate pipelines so that errors in metering would not lead to a compliance obligation.

Modifications to Section 95123. Suppliers of Carbon Dioxide.
Section 95123(a) was modified to require separate reporting of CO_2 exports for the purpose of geological sequestration, in order to meet the needs of the cap-and-trade regulation.

C. Modifications to Subarticle 3. Additional Requirements for Reported Data

Modifications to Section 95129. Substitution for Missing Data Used to Calculate Emissions from Stationary Combustion and CEMS Sources.

Section 95129(a) was clarified to state that this section applies only to Subpart D unit operators that choose to report CO_2 using Part 75 methods, and it does not apply to Subpart D unit operators that report CO_2 using Part 98 methods.

D. Modifications to Subarticle 4. Requirements for Verification of Greenhouse Gas Emissions Data Reports; Requirements Applicable to Emissions Data Verifiers

This subarticle provides the requirements for third-party verification of reporting entities' GHG emissions data reports. Several sections and subsections were clarified in response to public comments. Clarifications were made to subarticle 4 in the following areas: verification services requirements; verification plan development; data checks for product data; material misstatement calculation; data substitutions for product data; biomass-derived fuel verification requirements; and accreditation requirements.

Modifications to Section 95130. Requirements for Verification of Emissions Data Reports.

A minor clarification to section 95130(a)(2) was made by separating the two sentences in the section into (a)(2) and (a)(3) without modifying the regulatory requirements. This clarifies that any break in consecutive years of verification services requires the reporting entity to wait at least three years before re-contracting with the previous verification body or verifier(s).

Modifications to Section 95131. Requirements for Verification Services.

Based on a comment received from a verification body, an additional item was added in section 95131(b)(1)(A)(5) that indicates the verifier should review previous verification reports prior to developing a verification plan. Language was added in section 95131(b)(8)(E) that describes the information needed for the data checks of product data. This modification is needed to ensure verifiers correctly perform verification services related to reported product data.

Language was added to section 95131(b)(10) to clarify the verification procedures for product data. In the modified language, a material misstatement on a single product data component will lead to an adverse product data verification statement.

In response to comments, the term "covered emissions" was added to section 95131(b)(12) to clarify which emissions are subject to material misstatement calculation. A new definition for "covered emissions" was added to section 95102(a). Section 95131(b)(13) was removed because the information in this section was redundant with language in section 95131(b)(10). Renumbered section 95131(b)(13) [previously section 95131(b)(14)] and section 95131(b)(14) clarify that verifiers must check that data substitutions were not used for product data.

Section 95131(c)(3) was modified to explicitly indicate that verifiers must cite the section(s) corresponding to each non-conformance and material misstatement in the verification statement. This clarification to the verification statement was necessary to reflect modifications to the definitions of adverse verification statement, adverse product data verification statement, and adverse emissions data verification statement. The

changes to these definitions clarify that a non-conformance with section 95131(b)(9) will also lead to an adverse verification statement. This change was made to ensure emissions and product data are reported accurately and modified correctly, if necessary, by reporting entities during the verification process.

Several clarifications to section 95131(i) were made regarding the biomass-derived fuel verification requirements. The determination of a need for a full verification of biomass-derived fuel was modified to be consistent with section 95130. The verification requirements to visit an upstream entity for biomethane and biogas were removed from this section, as were requirements for a transactions specialist verifier and several other upstream entity-specific requirements. The verification requirements for biomethane and biogas were replaced with a more simplified requirement that a reporting entity must obtain documents that demonstrate the biomethane or biogas was purchased and delivered to the reporting entity. ARB believes this new method to verify biomethane and biogas maintains current verification standards, while addressing stakeholder comments and simplifying the reporting and verification process. With this new verification method, ARB understands that the actual biomethane molecules may not reach the reporting entity and that there is not a requirement for a physical pathway. Clarifications were also made that indicate the reporting entity, and not the verifier, must meet the reporting requirements for biomass-derived fuels and the related changes referenced in the cap-and-trade regulation.

Modifications to Section 95132. Accreditation Requirements for Verification Bodies, Lead Verifiers, and Verifiers of Emissions Data Reports and Offset Project Data Reports.

In response to stakeholder comments, the accreditation process in section 95132(c) was modified by adding further review requirements. Verification bodies, verifiers, lead verifiers, sector specific verifiers and offset project verifiers must pass a performance review prior to accreditation and prior to re-application for accreditation every three years.

Modifications to Section 95133. Conflict of Interest Requirements for Verification Bodies for Emissions Data Reports.

No modifications were made to this section.

E. Modifications to Subarticle 5. Reporting Requirements and Calculation Methods for Petroleum and Natural Gas Systems.

Much of the current final U.S. EPA “Subpart W” rule is now incorporated by reference in the current California mandatory reporting regulation. However, U.S. EPA proposed extensive rule changes in August 2011. Staff has begun the process of reviewing and evaluating the many proposed changes to determine how they may affect the data quality required for the cap-and-trade regulation. Following this review, staff will assess

whether further changes should be made to the mandatory reporting regulation through a subsequent regulatory process.

Modifications to Section 95150. Definition of the Source Category.

No modifications were made to this section.

Modifications to Section 95151. Reporting Threshold and Reporting Entity.

No modifications were made to this section.

Modifications to Section 95152. GHGs to Report.

Section 95152(c) and section 95152(f) were modified to be more explicit in the emissions and data required to be reported.

Modifications to Section 95153. Calculating GHG Emissions.

Section 95153(b) was modified to better define "low bleed devices." Parameter descriptions were added in sections 95153(f)(1)-(2), which were inadvertently omitted, and a parameter name was corrected.

Section 95153(i) was updated for onshore storage tanks to allow the use of two additional methodologies contained in the U.S. EPA GHG reporting rule, as these methods will provide sufficiently accurate data for sources now proposed to be outside the cap-and-trade program.

Section 95153(v) for "Produced Water Dissolved CO_2" was modified in response to stakeholder comments and to specify an improved method for systems under Vapor Recovery.

Other small clarifying edits and corrections were made to the section.

Modifications to Section 95154. Monitoring and QA/QC Requirements.

No modifications were made to this section.

Modifications to Section 95155. Procedures for Estimating Missing Data.

No substantive modifications were made to this section.

Modifications to section 95156. Data Reporting Requirements.

To support the Cap-and–Trade Regulation, the product data reporting requirements were modified to be consistent with the needs of the cap-and-trade program.

Modifications to Section 95157. Records That Must be Retained.

No modifications were made to this section.

Non-Substantive Corrections to the Regulation

After the close of the second 15-day comment period, the Executive Officer determined that no additional modifications should be made to the regulations, with the exception of the non-substantive changes listed below.

Punctuation and formatting corrections: Unnecessary, missing or inconsistently applied punctuation marks and text spacing were removed, added or changed. The comma at the end of section 95104(d)(4) should have been a period to mark the end of the paragraph, and it has been corrected. In the definition of "fuel" (section 95102(a)(162)), a missing comma has been added after the words "pilot fuel" to correctly describe the intent that the clause "such destruction does not result in a commercially useful end product" does not apply to the "unless they can sustain combustion without use of a pilot fuel" clause. A period was added to the end of the sentence in section 95111(d)(7). For consistency purposes, the ending punctuation for subparagraphs 95112(b)(2), (3), (4), (5), and (8) was changed from semicolons to periods. A comma was added to a sentence in section 95111(a)(5) related to asset-controlling suppliers.

Corrections of typographical errors: The first sentence of section 95131(c)(4) contained two consecutive words "the." One "the" has been removed. A missing parenthesis was added following the word "water" in section 95153(v)(1)(A). The word "as" was included inadvertently in the sentence referencing the equation in section 95111(b)(3) and has been removed. In the definition of "retail provider" the term "electrical cooperatives" was corrected to "electric cooperatives," consistent with California law. In 95102(a)(226), the typographical error "ares" was corrected to "are." In 95102(a)(375), to be consistent with the rest of the regulation, the hyphens after the words "topping" and "bottoming" have been removed, and the phrase "electric generating" was corrected to "electricity generating."

Corrections to plural and singular nouns: "Retail providers" was corrected to "retail provider" in section 95111(c)(1). "Section 95111(a)-(b) and (g)" was corrected to "sections 95111(a)-(b) and (g)" in section 95111(c).

Corrections of strikeout and underline formatting: Certain texts deleted in the originally proposed amendments during the 45-day comment period were incorrectly shown as both single strikeout and single underline (section 95104(e) of the revised regulation, section 95113(a)(3) in the 2007 regulation, and section 95131(c)(4) of the revised regulation). They should have been shown as single strikeout without the single underline, and they have been corrected. The "(156)" in paragraph numbering 95102(a)(159)(156) should have been stricken out in the second 15-day rule text, and it has been corrected by deletion.

Change in font style: The heading of section 95111(b)(1) was italicized for consistency.

Corrections of capitalization: Capitalization in the term "e-Tag" was corrected throughout. Removal of the capitalization in the word "Derived" in the words "Biomass-Derived fuels" in section 95131(i)(1)(B) and 95131(i)(1)(C) to be consistent with these words throughout the regulation. Throughout the regulation, "Cap-and-Trade Regulation" was changed to "cap-and-trade regulation" to maintain consistency with other documents.

Updates to table of contents and headings: The table of contents was updated to make the headings in the table of contents consistent with the headings within the regulation. Also, the heading in the regulation for "Calculation Methods for Suppliers of Carbon Dioxide" was changed to "Suppliers of Carbon Dioxide," and the heading in the regulation for "Conflict of Interest Requirements for Verification Bodies for Emissions Data Reports" was changed to "Conflict of Interest Requirements for Verification Bodies."

Change in order of definitions: The location of two definitions ("position holder" and "positive emissions data verification statement") were changed in the list of definitions in section 95102(a) to place them in correct alphabetical order.

Corrections of paragraph numbering: In section 95102(a), the two definition paragraphs following 95102(a)(197) were incorrectly numbered as 298 and 299, and they have been corrected to 198 and 199.

Correction to list in section 95111(c)(3): The phrase "owned by a retail provider that have GHG emissions" was corrected to "owned by a retail provider, and that have GHG emissions." The correction added a comma and the word "and" between "retail provider" and "that" to improve readability of the list of descriptors applied to "facilities or units."

Correction to a list of organizations: "Energy Information Administration" was repeated in the list of facility and unit identification numbers required pursuant to section 95111(g)(1)(C). The repetition was deleted.

Correction of citations referencing U.S. EPA rule: At the time when ARB's original proposal was published, the U.S. EPA rule (October 30, 2009 version) contained an error in 40 CFR §98.46, which incorrectly referred Subpart D unit operators to the data reporting requirements in §98.36(b). In the December 17, 2010 revision of the rule, U.S. EPA corrected the reference from §98.36(b) to §98.36(d) and renumbered the list under §98.36(b) due to insertion or deletion of certain provisions. As a result of these changes, the rule citation in section 95112(b)(5) that refers to §98.36(b)(6) became outdated. To reflect the revisions made in the U.S. EPA rule, which have been incorporated by reference, section 95112(b)(5) has been revised to refer to "40 CFR §98.35(b) for Subpart C units and §98.46 for Subpart D units," instead of "40 CFR §98.35(b)(6)."

Correction of citation: A citation of "95103(h)(1)" in section 95103(k)(7) refers to a nonexistent provision and required correction. The citation has been corrected to "95103(k)(1)." The reference to the verification section contained in section 95111(c)(1) was corrected from "95103" to "95130."

Correction to section references: Two section references in section 95153(f)(2)(c) were corrected to read (r) and (s) rather than (s) and (t). This change corrects an error in the section references without which erroneous data would be generated.

Methodology subheading correction: The subheading of section 95153(v) was corrected to read "Produced water dissolved CO_2 and CH_4". CH_4 was inadvertently omitted from the subheading while the regulation text clearly requires that both CO_2 and CH_4 emissions from produced water must be determined.

Clarification of variable definition: Text was added to the definition of the variable %G in section 95153(d)(1) to ensure that reporters enter this variable as a decimal rather than a whole number. The text now reads "%G = percent of packed vessel volume that is gas (expressed as a decimal). This change does not affect the reporting requirements of reporting entities and ensures not only a workable equation, but consistency with the other equation variables, which also include a unit metric in parentheses.

Added reference to the equation in section 95111(b)(5): The phrase "is calculated using the following equation" was added to the definition of "CO_2e RPS adjust" in section 95111(b)(5) to refer to the equation that immediately follows the list of definitions.

Correction of equation subscript: "CO_2e RPS adjustment" in the equation in section 95111(b)(5) was changed to "CO_2e RPS adjust" for consistency with the subscript in the defined term.

Correction of "eligible renewable energy resource" term: "Eligible renewable energy resource," is the defined term in California law. The word "California" was removed from the phrase "California eligible renewable energy resource" in the definition of "CO_2e RPS adjust" in section 95111(b)(5). The word "California" was removed from the phrase "California eligible renewable resource" in the definition of "MWhRPS" in section 95111(b)(5) and the word "energy" was added.

Clarification of a term in a definition: The phrase "a written contract" was corrected to read "a written power contract" in the definition of "specified source" for consistency with sections 95105(d), 95111(a)(4), 95111(a)(9), 95111(d)(6), 95111(g)(3), 95111(g)(4)(A), 95111(g)(4)(C), 95111(g)(4)(D), 95131(b)(6).

Non-Substantive Modifications to Staff Report

During review, the following nonsubstantial errors were identified in the references to the Staff Report: Initial Statement of Reasons for Rulemaking, Revisions to the Regulation for Mandatory Reporting of Greenhouse Gas Emissions, October 28, 2010.

These changes do not affect the regulatory requirements or analysis, and are primarily to correct typographical errors in titles of references. Modifications are shown in underline to designate new text, and ~~strikeout~~ to designate deleted text.

Titles to the references listed below should be corrected as shown.

ARB Wkshp Slides Elec 2010. ~~*Electricity*~~ *First Deliverers of Electricity*. http://www.arb.ca.gov/cc/reporting/ghg-rep/electricitydelivermarch2010.pdf (accessed October 6, 2010).

ARB Wkshp Slides Fuel 2010. *Methods for Fuel Suppliers*. http://www.arb.ca.gov/cc/reporting/ghg-rep/fuelsuppliersmarch2010.pdf (accessed October 6, 2010).

GOADS 2005. Gulfwide Offshore Activity Data System - 2005 (GOADS-2005), GOADS User's Guide – Bureau of Ocean Energy Management, Regulation and Enforcement. http://www.gomr.boemre.gov/homepg/regulate/environ/airquality/goad.html (accessed October 11, 2010).

USEPA Comments Q 2009. *Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments Volume No.: 25. Subpart Q~~AA~~ – Iron and Steel Production.* United States Environmental Protection Agency. September 2009. http://www.epa.gov/climatechange/emissions/downloads09/documents/SubpartQ-IronSteelProd.pdf (accessed August, 17, 2010).

WCI HER 2010. *Proposed Harmonization of Essential Requirements for Mandatory Reporting in U.S. Jurisdictions with EPA Mandatory Reporting Rule. July 15, 2009.* Western Climate Initiative. May 28, 2010. http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Proposed-Harmonization-of-Essential-Requirements-for-Mandatory-Reporting-in-U.S.-Jurisdictions-with-EPA-Mandatory-Reporting-Rule/ (accessed August 17, 2010).

WCI RECs Accounting 2008. *Electricity Subcommittee Discussion Paper on~~:~~ Renewable Portfolio Standards, Renewable Energy Certificates ~~(RECs)~~, and GHG Accounting*. Western Climate Initiative. December 8, 2008. http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Discussion-Paper-Renewable-Energy-Certificates-(RECs)-Accounting/ (accessed October 25, 2010).

WCI O&G 2010. ~~*WCI*~~ *Comments and Recommendations for ~~on~~ the Proposed Mandatory Reporting of ~~GHG~~ Greenhouse Gas Emissions from Petroleum and Natural ~~Proposed Reporting for Oil and~~ Gas Operations.* Western Climate Initiative. June 7, 2010. http://westernclimateinitiative.org/component/remository/general/WCI-Comments-on-the-Proposed-Mandatory-Reporting-of-GHG-Emissions-from--Proposed-Reporting-for-Oil-and-Gas-Operations-%28Subpart-W%29 (accessed August 23, 2010).

WCI O&G IP 2010. Eight Issue Papers from the WCI Oil and Gas Workgroup. Cover Letter; Storage Tanks; Instrument Gas and Vented Methane Emissions; Compressor Emissions; Sour Gas Treatment; Contractor Emissions; Dehydrators; Well Unloading. Western Climate Initiative. March 2010. http://www.westernclimateinitiative.org/component/remository/Reporting-Committee-Documents/Oil-and-Gas-Workgroup/ (accessed October 27, 2010).

The following referenced item was unneeded and is to be deleted from page 49 of the staff report and in the references section as shown.

Edit to page 49 of Staff Report:
For specified facilities or units whose operators are not subject to the U.S. EPA GHG Mandatory Reporting Regulation, including cogeneration systems, ARB will accept CO_2e emissions calculated based on heat of combustion data reported to the Energy Information Administration ~~(EIA 2010)~~.

Edit to References (item deleted):
~~EIA 2010. U.S. Energy Information Administration, Electricity Data Files: Form EIA-860, "Annual Electric Generator Report," and Form EIA-923, "Power Plant Operations Report." http://www.eia.doe.gov/cneaf/electricity/page/data.html (accessed October 25, 2010).~~

III.

SUMMARY OF COMMENTS AND AGENCY RESPONSES

The Board received numerous written and oral comments during the 45-day and 15-day comment periods for this regulatory action. Below is the list of commenters with a numeric identifier that corresponds with the identification number on the ARB website for submitted written comments, which are available here: http://www.arb.ca.gov/regact/2010/ghg2010/ghg2010.htm

The rulemakings for the ARB mandatory reporting program and the cap-and-trade program were developed on a concurrent timeline because of the interrelationships between the two regulations. As a result of this, comments were sometimes submitted to the cap-and-trade rulemaking that were clearly relevant to the mandatory reporting rulemaking. Statute only requires response to comments directly submitted as part of a specific rulemaking. However, for this Final Statement of Reasons, staff has also responded to mandatory reporting regulation questions submitted to the cap-and-trade program for the purposes of completeness and to be fully responsive to comments provided.

Individual comments are identified using a coding scheme to identify when the comment was received (e.g., as part of the initial 45-day comment period or during a 15-day comment period), the sequence number of the comment (generally based on the order in which it was received), a sub-sequence number if the comment contains more than one distinct comment, and an abbreviation for the commenter. For example, in the example comment below, the comment was received as a comment on the Original Proposal as part of the 45 day comment period. It was comment letter #41, and it is comment #1 of the letter. The commenter abbreviation is SIMPLOT. All submitted written comments for the mandatory reporting rulemaking are available here: http://www.arb.ca.gov/regact/2010/ghg2010/ghg2010.htm.

Example:

A-1 Deviating from U.S. EPA Requirements Results in Complications
Comment: If harmonization with the U.S. EPA rule is not verbatim, then two different data sets are generated, resulting in additional complications. [OP 41.01 – SIMPLOT]

When multiple comments were included within a single submittal, individual comments within the submittal were numbered sequentially to specifically identify them. For example, letter #41 includes six comments, so within the responses, these individual comments are identified as 41.01, 41.02, 41.03, etc.

The table below describes the prefixes used to indicate when the comments were received during the rulemaking process.

Comment Identification Codes

Code	Comment Received Description
OP	Comment numbers prefixed with an "OP" are comments received on the "Original Proposal" during the initial 45-day comment period.
B	Comment numbers prefixed with "B" are written comments provided at the "Board" hearing on December 16, 2010.
T	Comment numbers prefixed with "T" were public "Testimony" provided verbally at the Board hearing on December 16, 2010.
C&T	Comment numbers prefixed with "C&T" were submitted as part of the "cap-and-trade" rulemaking during the initial 45-day comment period, but are relevant to the mandatory reporting regulation.
FF	Comments Numbers prefixed with "FF" were received during the "First Fifteen" day comment period.
SF	Comment numbers prefixed with "SF" were received during the "Second Fifteen" day comment period.
FF C&T	Comment numbers prefixed with "C&T" were submitted as part of the "cap-and-trade" rulemaking during the first fifteen day comment period, but are relevant to the mandatory reporting regulation.
SF C&T	Comment numbers prefixed with "C&T" were submitted as part of the "cap-and-trade" rulemaking during the first fifteen day comment period, but are relevant to the mandatory reporting regulation.

The following tables provide summary lists of all of those providing comments. Following the lists, each comment is summarized, generally organized by subject area, and not commenter, and a response is provided explaining how the proposed action has been changed to accommodate the comment, or the reasons for making no change.

List of Commenters and Abbreviations
– Original Proposal –

Comment Number	Abbreviation	Commenter
OP 01	CSDTPW	Keith Foszcz, County of Sonoma DTPW
OP 02	TNC	Michelle Passero, Nature Conservancy
OP 03	SBM	David Chase, Small Business Majority
OP 04	JW	Jeremy Weinstein, Law Offices of Jeremy D. Weinstein, P.C.
OP 05	WPTF	Clare Breidenich, Western Power Trading Forum
OP 06	SCPPA1	Norman Pedersen, Southern Calif. Public Power Authority
OP 07	PGE	Judi Mosley, Pacific Gas and Electric Company
OP 08	CSCME	John Bloom, Coalition for Sustainable Cement

Comment Number	Abbreviation	Commenter
		Manufacturing & Environment
OP 09	CAPCOA	Melvin Zeldin, California Air Pollution Control Officers Association
OP 10	CSCME	John Bloom, Coalition for Sustainable Cement Manufacturing & Environment
OP 11	CSCME	John Bloom, Coalition for Sustainable Cement Manufacturing & Environment
OP 12	AAVB	Tod Delaney, Assoc. of Accredited Verification Bodies
OP 13	BC	Braxton Cook
OP 14	SCE1	Kelly O'Donnell, Southern California Edison
OP 15	MSCG	Steve Huhman, Morgan Stanley Capital Group,Inc.
OP 16	DOD	Michael Huber, U.S. Department of Defense
OP 17	CC	Casey Creamer, Agricultural Coalition
OP 18	CCA	Justin Oldfield, California Cattlemen's Association
OP 19	EMWD	Al Javier, Eastern Municipal Water District
OP 20	SEU	Tamara Rasberry, Sempra Energy Utilities
OP 21	RRI	Brian McQuown, RRI Energy, Inc.
OP 22	SCAQMD	Barry Wallerstein, South Coast Air Quality Management District
OP 23	PC	Eric Chung, PacifiCorp
OP 24	BACWA	Sara Merrill, BACWA AIR Committee
OP 25	SCPPA1	Lily Mitchell, Southern Calif. Public Power Authority
OP 26	BPA	Courtney Olive, Bonneville Power Administration
OP 27	CWCCG	Jacqueline Kepke, CA Wastewater Climate Change Group
OP 28	VG	Steven Smith, Verallia Glass
OP 29	RMTUD	Elizabeth Hadley, Redding/Modesto/Turlock Utility Districts
OP 30	SG	Shawn Bailey, Sempra Generation
OP 31	WSPA	Catherine Reheis-Boyd, WSPA
OP 32	ACWA	Scott Hernandez, Assoc. of California Water Agencies
OP 33	LACSD	Frank Caponi, LA County Sanitation District
OP 34	CRI	Kirk Marckwald, California Railroad Industry
OP 35	SMUD1	William Westerfield, Sacramento Municipal Utility District
OP 35	LACSD	Frank Caponi, LA County Sanitation District
OP 36	CALERA	Thomas Carter, Calera
OP 37	RMA	Ivor John, Ryerson, Master and Associates, Inc
OP 38	LADWP	Cindy Parsons, Los Angeles Department of Water &

Comment Number	Abbreviation	Commenter
		Power
OP 39	TPUD	Rick Coleman, Trinity PUD
OP 40	KRGTC	Bret W. Reich, Kern River Gas Transmission Company
OP 41	SIMPLOT	Burl Ackerman, Simplot
OP 42	TCR	Jackie Zorovich, The Climate Registry
OP 43	BAAQMD1	Jack Broadbent, Bay Area Air Quality Management District
B 01	RCWMD	Hans Kernkamp, Riverside County Waste Management Department
B 02	CDFFP	Bill Snyder, Calif Dept of Forestry and Fire Protection
B 03	FE	Tod Delaney, First Environment
B 04	CIP	Norm Plotkin, Plotkin and Zims for California Indepent Petroleum Association
B 05	SSPSN	Frank Harris for SCE, SMUD, PG&E, SDG&E, and NCPA
T 01	TNC	Michelle Passero, The Nature Conservancy
T 02	PFT	Paul Mason, Pacific Forest Trust
T 03	BAAQMD2	Brian Bateman, Bay Area AQMD
T 04	DC	Dale Backlund, Dow Chemical
T 05	SCE2	Frank Harris, Southern California Edison
T 06	LADWP	Cindy Parsons, Los Angeles Department of Water and Power
T 07	AGCO	Casey Creamer, California Cotton Ginners and Growers Association, Western Agricultural Processors Association, Neisi Farmers League
T 08	CEERT	Danielle Osborne Bills, Center for Energy Efficiency and Renewable Technologies
T 09	PGE2	Kate Beardsley, Pacific Gas and Electric Company
T 10	CCEEB	Mik Skvarla, California Council on Environmental and Economic Balance
T 11	SCPPA2	Norman Pederson, Southern California Public Power Authority
T 12	CWCCG	Jackie Kepke, California Wastewater Climate Change Group
T 13	CCA	Justin Oldfield, California Cattlemen's Association
T 14	SMUD2	Timothy Tutt, Sacramento Municipal Utility District
T 15	SEU	Tamara Rasberry, Sempra Energy Utilities
T 16	SMAQMD	Larry Greene, Sacramento Metropolitan Air Quality Management District
T 17	ANSI	Lane Hallenbeck, American National Standards

Comment Number	Abbreviation	Commenter
		Institute
C&T 18	EPUC	Evelyn Halhl, Energy Producers & Users Coalition, EPUC
C&T 22	TNC2	Michelle Passero, The Nature Conservancy
C&T 105	JW	Jeremy Weinstein, Law Offices of Jeremy D. Weinstein
C&T 113	SCPPA	Norm Pedersen, Southern California Public Power Authority
C&T 130	PGE2	John Busterud, Pacific Gas and Electric Company
C&T 161	NRDC	Kristin Eberhard, Natural Resources Defense Council
C&T 171	CSCME	John Bloom, Coalition for Sustainable Cement Manufacturing & Environment
C&T 178	EC2	Kristin Eberhard, Environmental Coalition #2
C&T 182	TNC1	Michelle Passero, The Nature Conservancy
C&T 206	CERP	Megan Caronsky, Coalition for Emission Reduction Projects
C&T 214	EC1	Camille Kustin, Enviromental Coalition #1
C&T 221	ANSI	Lane Hallenbeck, American National Standards Institute
C&T 224	CALPINE	Kassandra Gough, Calpine Group
C&T 496	EDF	James Fine, Environmental Defense Fund
C&T 498	MSCG	Steve Kuhman, Morgan Stanley Capital Group
C&T 529	AG2	Casey Creamer, Agricultural Coalition #2
C&T 562	EMWD	Eastern Municipal Water District
C&T 592	DOD	Michael Huber, U.S. Department of Defense
C&T 601	AG1	Cynthia Cory, Agricultural Coalition #1
C&T 620	EC3	Camille Kustin, Environ Coalition #3
C&T 623	EC4	Camille Kustin, Enviro Coalition #4
C&T 630	AG Council	Emily Rooney, Agricultural Council of California
C&T 636	SCAQMD	Barry Wallerstein, South Coast Air Quality Management District
C&T 644	BACWA	Sarah Merrill, BACWA AIR Committee
C&T 678	PEB	Michael Mazowita, PE Berkeley
C&T 699	BoP	Cortney Olive, Bonneville Power
C&T 701	CP	Jennifer Stettner, Conoco Phillips
C&T 704	CWCCG	Jackie Kepke, California Wastewater Climate Change Group
C&T 711	CE	Alfred Picardi, Constellation Energy
C&T 731	ACWA	Scott Hernandez, Assoc. of California Water Agencies

Comment Number	Abbreviation	Commenter
C&T 735	WSPA	Catherine Reheis-Boyd, WSPA
C&T 738	BCSE	Lisa Jacobson, Business Council for Sustainable Energy
C&T 762	CBE	Adrienne Bloch, Communities for a Better Environment
C&T 765	CCEEB	Robert Lucas, California Council for Environmental and Economic Balance
C&T 767	ABC	Josh Lieberman, American Biogas Council
C&T 797	SDRCC	Angelika Villagrana, San Diego Regional Chamber of Commerce
C&T B 05	CIP	Norman Plotkin, California Independent Petroleum Association
C&T B 12	CBEA	Julee Malinowski-Ball, California Biomass Energy Alliance
C&T T 01	CC	Casey Creamer, CCGGA, WAgPA, Neisi
C&T T 05	CWCCG2	Jackie Kepke, California Wastewater Climate Change Group
C&T T 06	LADWP	Leilani Johnson Kowal, LADWP
C&T T 09	SCPPA	Norm Pedersen, Southern California Public Power Authority

List of Commenters and Abbreviations
– First 15-Day Proposal –

Comment Number	Abbreviation	Commenter
FF 01	TP	John Larimer, Tea Party
FF 02	BPA	Courtney Olive, Bonneville Power Administration
FF 03	GA	Michael Gardner, Gypsum Association
FF 04	WAPA	Koji Kawamura, Western Area Power Administration
FF 05	REU	Elizabeth Hadley, Redding Electric Utility
FF 06	NRW	Randal Friedman, Navy Region Southwest
FF 07	This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.	
FF 08	KI	Chuck Solt, Kurz Instruments
FF 09	PI	Gerald Miller, Praxair, Inc.
FF 10	EC	Camille Kustin, Environmental Coalition
FF 11	WSPA	Catherine Reheis-Boyd, Western States Petroleum Association
FF 12	CSCME	John Bloom, Coalition for Sustainable Cement

Comment Number	Abbreviation	Commenter
		Manufacturing & Environment
FF 13	MWDSC	Janet Bell, Metropolitan Water District of Southern California
FF 14	MSCG	Steven Huhman, Morgan Stanley Capital Group, Inc.
FF 15	CAPCOA	Tom Kristofk, California Air Pollution Control Officers Association
FF 16	LACSD	Frank Caponi, LA County Sanitation District
FF 17	ABIG	Shelly Sullivan, AB 32 Implementation Group
FF 18	SCAP	John Pastore, Southern California Alliance of Publicly Owned Treatment Works
FF 19	PGE	Judi Mosley, Pacific Gas and Electric Company
FF 20	OP	Carl Sirdak, Occidental Petroleum
FF 21	This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.	
FF 22	CCCSD	Margaret Orr, Central Contra Costa Sanitary District
FF 23	VC	Matthew Hodges, Valero Companies
FF 24	CCA	Justin Oldfield, California Cattlemen's Association
FF 25	SMUD	William Westerfield, Sacramento Municipal Utility District
FF 26	GANA	Ashley Charest, Glass Association of North America
FF 27	AP	Keith Adams, Air Products
FF 28	KRGTC	Bret Reich, Kern River Gas Transmission Company
FF 29	CMTA	Dorothy Rothrock, CA Manufacturers & Technology Association
FF 30	CALPINE	Barbara McBride, Calpine Corporation
FF 31	EPUC/CAC	Seema Srinivasan, Energy Producers and Users Coalition/Cogen Association of California
FF 32	AF&PA	Jerry Schwartz, American Forest & Paper Association
FF 33	WPTF	Clare Breidenich, Western Power Trading Forum
FF 34	SCAQMD	Barry Wallerstein, South Coast AQMD
FF 35	This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.	
FF 36	UCS	Dan Kalb, Union of Concerned Scientists
FF 37	SCE	Kelly O'Donnell, Southern California Edison
FF 38	ACCIG	Rob Simon, American Chemistry Council
FF 39	PC	James Campbell, PacifiCorp
FF 40	UA	Jimmy Samartzis, United Airlines, Inc.
FF 41	SG	Shawn Bailey, Sempra Generation
FF 42	CIPA	Norman Plotkin, California Independent Petroleum Association

Comment Number	Abbreviation	Commenter
FF 43	MS	Milan Steube
FF 44	CBEA	Julee Malinowski-Ball, California Biomass Energy Alliance
FF 45	CLFP	John Larrea, California League of Food Processors
FF 46	PX	Nicholas W. van Aelstyn, Powerex Corp.
FF 47	CCEEB	Robert Lucas, California Council for Environmental and Economic Balance
FF 48	NS	Thomas Corr, Noble Solutions
FF 49	SCPPA	Lily Mitchell, Southern California Public Power Authority
FF 50	SCPPA2	Lily Mitchell, Southern California Public Power Authority
FF 51	LADWP	Cindy Parsons, Los Angeles Department of Water & Power
FF 52	FE	James Wintergreen, First Environment, Inc.
FF 53	CCC	Brenda Coleman, California Chamber of Commerce
FF 54	$AGCO_2$	Casey Creamer, CCGGA/WAPA/Nisei
FF 55	SEU	Tamara Raspberry, Sempra Energy Utilities
FF 56	BAAQMD	Brian Bateman, Bay Area Air Quality Management District
FF C&T 48	ABC	Patrick Serfass, American Biogas Council
FF C&T 52	PGE	Judi Mosley, Pacific Gas and Electric Company
FF C&T 66	WSPA	Reheis-Boyd, Catherine, Western States Petroleum Association
FF C&T 90	EM	Gauri Potdar, Element Markets
FF C&T 125	ACCIG	Rob Simon, American Chemistry Council
FF C&T 128	MID	Elizabeth Hadley, Redding Electric Utility
FF C&T 135	LSP	Jennifer Chamberlin, LS Power
FF C&T 141	CCEEB	Robert Lucas, California Council for Environmental and Economic Balance
FF C&T 142	CERP	Kyle Danish, Coalition for Emission Reduction Policy
FF C&T 157	MWDSC	Janet Bell, Metropolitan Water District of Southern California
FF C&T 186	UCS	Dan Kalb, Union of Concerned Scientists

List of Commenters and Abbreviations
– Second 15-Day Proposal –

Comment Number	Abbreviation	Commenter
SF 01	3M	Kurt Werner, 3M
SF 02	BPA	Courtney Olive, Bonneville Power Administration
SF 03	WAPA	Koji Kawamura, WAPA
SF 04	This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.	
SF 05	CSCME	John Bloom, CSCME
SF 06	ABIG	Shelly Sullivan, AB 32 Implementation Group
SF 07	WIRA	Craig Moyer, WIRA
SF 08	ALG	Bart Leininger, Ashworth Leininger Group
SF 09	WSPA	Reheis Boyd, Catherine, WSPA
SF 10	MSCG	Steve Huhman, Morgan Stanley Capital Group, Inc.
SF 11	LADWP	Bruce Moore, LADWP
SF 12	SG	Shawn Bailey, Sempra Generation
SF 13	SHELL	Marcie Milner, Shell Energy North America
SF 14	PGE	Judi Mosley , Pacific Gas and Electric Company
SF 15	OP	Caro Wirdak, Occidental Petroleum
SF 16	WPTF	Clare Breidenich, Western Power Trading Forum
SF 17	CCC	Brenda Coleman, California Chamber of Commerce
SF 18	JD	Joyce Dillard
SF 19	CALPINE	Barbara McBride, Calpine Corporation
SF 20	CRI	Kirk Marckwald, California Railroad Industry
SF 21	SCPPA	Lily Mitchell, SCPPA
SF 22	PX	Nicholas van Aelstyn, Beveridge & Diamond, PC
SF 23	CCEEB	Robert Lucas, CCEEB/Lucas Advocates
SF 24	CCCSD	Margaret Orr, Central Contra Costa Sanitary District
SF 25	SEU	Eugene Mitchell, Sempra Energy Utilities
SF 26	SCE	Kelly O'Donnell, Southern California Edison
SF C&T 67	CIPA	Norman Plotkin, CA Independent Petroleum Assoc.
SF C&T 97	AP	Keith Adams, Air Products

45-DAY COMMENTS
AND STAFF RESPONSES

A. Subarticle 1. Applicability, Definitions, and General Requirements §95100 – §95106

§95100.5 Purpose and Scope

A-1. Deviating from U.S. EPA Requirements Results in Complications
Comment: If harmonization with the U.S. EPA rule is not verbatim, then two different data sets are generated, resulting in additional complications. [OP 41.01 – SIMPLOT]

Response: As much consistency as possible with the U.S. EPA rule was maintained. However, some deviations from the U.S. EPA rule were necessary to support California's cap-and-trade program. The need for individual differences are described in the Staff Report: Initial Statement of Reasons for Rulemaking released on October 28, 2010, in section VIII: Summary and Rationale for Proposed Regulations.

A-2. Create Reporting Requirements Equivalent to U.S. EPA
Comment: Work with EPA to create equivalent reporting requirements so it is not necessary to comply with two separate requirements by different entities for the same production facilities. [T 10.02 – CCEEB]

Response: Although ARB staff maintains ongoing working relationships with the U.S. EPA staff involved with mandatory reporting, because of the different program needs, it is not possible to create identical reporting requirements. Whereas the U.S. EPA program is strictly an inventory program, the ARB program also supports a cap-and-trade program, which requires additional accuracy in reported emissions data, reporting of specific product data, and other information needed to support a market-based trading system.

A-3. Align With U.S. EPA Reporting Requirements
Comment: Work with EPA to create equivalent reporting requirements so it is not necessary to comply with two separate requirements by different entities for the same production facilities. [T 07.01 - AGCO]

Response: See Response to A-2.

A-4. Maintain Consistency with U.S. EPA and Exclude Biomass from Reporting
Comment: Maintain consistency with the U.S. EPA reporting regulation and exclude biomass and biogas-related emissions from the mandatory reporting program. [T 12.01 – CWCCG]

Response: See Response to A-2. Under a cap-and-trade system, it is necessary to track and verify biomass fuel usage. It will be important to check that exceptions to the requirement to hold allowances for GHG emissions are fully warranted each year. It is also necessary to monitor biomass fuel usage to address sustainable use concerns. For these reasons biomass reporting and verification requirements are necessary. The regulation does provide flexibility for biomass fuels in other ways, such as measurement standards and emissions quantification methods.

A-5. Maintain Consistency with U.S. EPA and Exclude Biomass from Reporting
Comment: The regulation should exclude biomass CO_2 emissions for consistency with the Federal rule and the cap-and- trade program. U.S Environmental Protection Agency and the proposed cap-and- trade program, Section 98.2(b) of the Federal rule states that to calculate emissions, stationary fuel combustion units are to "exclude carbon dioxide emissions from the combustion of biomass, but include emissions of CH_4 and N_2O from biomass combustion." This rule does not include biomass so biomass shouldn't be in the regulation. [OP 19.01 – WMWD, OP 24.01 – BACWA, OP 27.01 – CWCCG, OP 32.01 – ACWA]

Response: See Response to A-4.

A-6. Maintain Consistency with U.S. EPA Regulation
Comment: On mandatory reporting, we urge ARB to follow through with the theme of consistency with EPA's regulation as well as with cap and trade and exclude biomass and biogas-related emissions from the mandatory reporting program. [C&T T 05 – CWCCG2]

Response: See Response to A-4.

A-7. Provide Specific and Uniform Reporting Requirements
Comment: CARB should provide specific and uniform reporting requirements and guarantee oversight for all utilities receiving free allowances. [T 08 – CEERT]

Response: ARB agrees with the commenter. The reporting requirements are uniform for all reporters within a specified sector, and ARB will closely monitor all reporting entities receiving free allowances through the cap-and-trade program. In addition, both the MRR and cap-and-trade regulation provide for oversight mechanisms, including verification, ARB audits, and ARB enforcement action in cases of noncompliance.

A-8. Align with Future EPA Regulations
Comment: This regulation should reference current EPA regulations and ARB must work to align with future EPA rule changes. [OP 31.09 – WSPA]

Response: ARB has incorporated U.S. EPA rulemakings issued subsequent to the 45-day proposal, as part of proposed 15-day changes. ARB will continue to monitor U.S. EPA rulemaking activity and will consider regulation updates as needed, in consultation with affected stakeholders.

A-9. Harmonization With Federal Programs

Comment: The rapid proliferation of GHG regulations at both the state and federal level could cause significant administrative burdens as inventory calculation and reporting standards have not been harmonized. Consequently, reporting facilities will be required to track several different parameters and calculate various values for GHG emissions, often for the same sources. We note that ARB representatives have publicly stated the intention to harmonize the mandatory reporting under AB 32, which serves as the basis for ARB's cap and trade program, with other GHG reporting rules, such as the US EPA Mandatory GHG Reporting Rule. We support such efforts and request that you consider harmonizing the PDR with Executive Order 13514 and the US EPA's plans for the Prevention of Significant Differences/Title V programs as well. [C&T 592 – DOD]

Response: See Responses to A-1 and A-2.

A-10. Harmonize with U.S. EPA Reporting Program

Comment: Harmonizing with 40 CFR Part 98 – SMUD supports harmonizing the ARB and U.S. EPA GHG reporting programs and appreciates the progress made in ARB's current proposal. We note that the proposed revisions to ARB's Mandatory Reporting regulations being considered on December 16, 2010 incorporate by reference U.S. EPA GHG reporting regulations promulgated through October 7, 2010. However, additional revisions to the U.S. EPA GHG reporting program are imminent with a final rule to become effective December 31, 2010. As of this writing, this final rule is not yet published in the Federal Register but is signed by the U.S. EPA Administrator. The final rule amends specific provisions in the U.S. EPA GHG reporting rule to clarify certain provisions, to correct technical and editorial errors, and to address certain questions and issues that have arisen since promulgation. One of the technical errors corrected in U.S. EPA's rulemaking was an incorrect citation for the data reporting requirements applicable to electricity generating units subject to Subpart D. Section 98.46 of Subpart D specified that the owner or operator of a Subpart D unit must comply with the data reporting requirements of 40 CFR §98.36(b) and, if applicable, 40 CFR §98.36(c)(2) or (c)(3). However, Subpart D units all use the CO_2 mass emissions calculation methodologies in 40 CFR Part 75. Therefore, the applicable data reporting section for Subpart D units is 40 CFR §98.36(d), not 40 CFR §98.36(b), 98.36(c)(2), or 98.36(c)(3). This is one example of where ARB proposed revisions, if adopted as is, will conflict with the latest revisions to the U.S. EPA GHG reporting rules. SMUD recommends that ARB review and include, where appropriate, the latest revisions to the U.S. EPA GHG reporting regulations, to become effective December 31, 2010. At a

minimum, ARB should apply compliance discretion in cases where the U.S. EPA rules up through October 7, 2010 are clearly in error. [OP 35.05 – SMUD1]

Response: The MRR now incorporates subsequent U.S. EPA rulemakings. The inclusion of the December 17, 2010 U.S. EPA rule revisions resolves the specific error cited by the commenter.

A-11. Include Only "Industrial" Facilities

Comment: It is recommended that ARB retrieve reported GHG data from U.S. EPA's reporting tool in order to avoid duplicative reporting to both the ARB and U.S. EPA. Duplicative reporting increases cost to industry, results in multiple data sets for some facilities, and increases the chances for errors. [OP 41.03 – SIMPLOT]

Response: Due to the timing of ARB program implementation, deferral by U.S. EPA of collecting potentially confidential information, and some significant differences between ARB and U.S. EPA reporting program requirements, sharing data between the programs is not currently possible. However, in addition to substantially aligning many of the regulatory requirements, ARB has been working to develop a reporting tool that will be very consistent between the two programs. ARB will continue working with the U.S. EPA to encourage data sharing to the maximum extent possible.

A-12. Minimize Reporting and Remove Verification if No Compliance Obligation

Comment: Reporting requirements that do not give rise to compliance obligations should be kept to a minimum and should not be subject to verification. Serious consideration should be given to deleting the reporting requirements in section 95111 that do not give rise to compliance obligations under the cap-and-trade regulation ("noncompliance information"), considering the extensive reporting burden that is imposed on electric sector entities under this regulation and other AB 32 regulations such as the renewable energy and sulfur hexafluoride regulations. If the ARB determines that it has a real need for the non-compliance information, and the information cannot be obtained from other sources, the non-compliance information should be clearly distinguished from compliance information and should not be subject to verification. Verification is necessary for information that forms the basis of a compliance obligation, but the same standard should not apply to non-compliance information. This distinction is necessary because the cap-and-trade regulation often refers to compliance obligations being calculated on the basis of metric tons of emissions for which a verification statement is issued. [OP 06.12 – SCPPA]

Response: AB 32 requires ARB's reporting program to include a verification component, regardless of the Board's adopted control strategies (Health and Safety Code section 38530). ARB has provided for flexibility in meeting this requirement, including not applying the requirement to facilities below 25,000 MT CO_2e except where subject to a compliance obligation. In section 95111, this

flexibility is extended to retail providers who are not electricity importers or exporters. As long as the retail sales figures they report are not held as confidential, verification is not required. **[**

§95101 Applicability

A-13. Further Evaluate Applicability Threshold
Comment: The Board should delay approval of the regulation and further analyze lowering the reporting threshold to 10,000 metric tons of CO_2e per year. Believe that lowering the threshold would include more than the 200 additional facilities included in staff analysis due to the method used to estimate the number of facilities. [OP 17.02 – CC]

Response: The estimate of 200 additional facilities added as a result of the 10,000 ton CO_2e threshold is based on review of air district data on facility fuel use. Since fuel use should correspond to combustion emissions that are the basis for applicability for facilities below 25,000 metric tons CO_2e, ARB believes this estimate is reasonable.

A-14. The 10,000 Ton Reporting Threshold is Too Low
Comment: The 10,000 ton reporting threshold is too much of a reduction from the current 25,000 ton threshold. Would rather have a 20,000 ton threshold for identifying those facilities near the threshold for the purposes of cap-and-trade. [T 13.02 – CCA]

Response: The reporting threshold of 10,000 metric tons of CO_2e is necessary to support an effective cap-and-trade program. As described on pages 22-23 of the Staff Report, it is important to monitor the effects of the cap-and-trade threshold on both emissions leakage below the cap and on business competitiveness above it. The MRR includes this lower threshold to address these concerns and to maintain consistency with Western Climate Initiative design principles. However, to minimize the reporting burden, the regulation includes limited and simplified reporting requirements for the smaller facilities under the cap-and-trade threshold. Only combustion emissions are reported, and third-party verification is not required for these reports.

A-15. Opposed to 10,000 Ton Threshold
Comment: We are opposed to lowering the mandatory GHG reporting threshold to 10,000 $mtCO_2e$ in the cap and trade and mandatory reporting regulations. There has been no outreach from ARB to the agricultural community to help us analyze who would be impacted and included. While many sources at the 25,000 $mtCO_2e$ threshold have staff to assist in the task of reporting, this would definitely not be situation with sources at 10,000 $mtCO_2e$. We believe that the number of sources subject to the 10,000 $mtCO_2e$ reporting threshold would be significant and would affect many agricultural facilities and farming operations. The impacts

and burden of lowering the threshold needs further review prior to Board approval. We request that the Board delay approval of lowering the reporting threshold until additional workshops can be conducted and staff has time to work with the affected stakeholders. We believe this substantial change is premature and unnecessary at this time. [C&T 601 and 630 – AG Council]

Response: See Response to A-14. Staff provided notification to facilities potentially affected by the regulation prior to Board consideration of the staff proposal.

A-16. Threshold Should Not Be Reduced to 10,000 tons
Comment: Mandatory reporting threshold should not be reduced to 10,000 tons of CO_2e. This provision of the regulation goes way too far and unnecessarily complicates what is an already overburdened and untested program. CARB should instead focus on those sectors already covered and implement through a phased approach, with adjustments as needed. [C&T 797 – SDRCC]

Response: See Response to A-14.

A-17. Leave Open Decision on 10,000 ton Reporting Threshold
Comment: Request that Board leave open the item on the dropping of the reporting threshold down to 10,000 metric tons for general combustion sources. Additional time should be provided for more stakeholder input to evaluate which specific sources will be affected under the revised threshold, and if the threshold should be revised. [T 07.03 – AGCO]

Response: See Response to A-14. ARB worked with stakeholder groups in developing the MRR and believes sufficient time for input was provided.

A-18. Decision on 10,000 ton Reporting Threshold
Comment: The Board should leave open the item on the dropping of the threshold down to 10,000 metric tons. We think there could be potentially other issues with regards to that. We'd like to ask the Board to leave that open so we can come back so we can look at it, find out if changes need to be made, what kind of sources would be brought in. And at that time, with more information, more stakeholder input, come back to your Board. [C&T 529 – AG2]

Response: See Response to A-17.

A-19. Applicability for Agricultural Facilities and Threshold
Comment: Additional work needs to be made on agriculture facilities, the combining of those facilities with regard to reporting. The example is that you can have a power plant that's between 2500 metric tons and 10,000 that would not have to report for this program, but you could have a cotton gin, the same emissions, and that would be part of the mandatory reporting and potentially cap

and trade. So we ask that we work with staff over the next few months to work on the nuances and come up with something that is fair. [C&T T 02 – CC]

Response: Under the staff proposal, the reporting threshold for power plants was increased from 2,500 to 10,000 metric tons, but other type of facilities would also not report below 10,000 metric tons. ARB believes the regulatory thresholds are clear and will continue to work with stakeholders regarding which "facilities" are or are not subject to the reporting regulation.

A-20. Regulation Not Harmonized With U.S. EPA and Threshold Too Low
Comment: The proposed regulatory changes only succeed at rigorous and costly data collection and costly third party verification. There are more exceptions to than harmony with U.S. EPA regulations and California compromises on its reporting threshold rather than recognizing appropriate California needs. CIPA objects to including facilities and suppliers with emissions between 10,000 metric tons and 25,000 metric tons of CO_2e being included in the mandatory reporting program. Requiring reporting below 25,000 tons from parties with no compliance obligations will be costly, create confusion, is in no way a "harmonization" with U.S. EPA reporting requirements and only serves to align with the Western Climate Initiative (WCI) at a time when CARB is adopting a Cap and Trade scheme that encompasses California only. The mandatory reporting requirement threshold should remain aligned with the U.S. EPA standard of 25,000 $MTCO_2e$. [C&T B 05.01 – CIP]

Response: See Responses to A-2 and A-14.

A-21. Support Alignment with U.S. EPA Reporting
Comment: We want to support the changes in the resolution with regards to the mandatory reporting to align that with EPA, their reporting and also the policy decision they've made to support that with regard to agriculture reporting. [C&T T 01 – CC]

Response: The Board's action of adopting the Resolution reflects this request.

A-22. Object to Reporting If No Compliance Obligation
Comment: Object to the reporting threshold of 10,000 tons for parties with no compliance obligation. It will be costly, create confusion, and is not in harmonization with U.S. EPA reporting requirements. The 10,000 ton threshold aligns with WCI, but not EPA. The threshold should be set to 25,000 tons to be consistent with U.S. EPA reporting. Similarly, for oil and gas facilities, the ARB has not maintained conformance with EPA requirements with respect to the reporting threshold. Objection to reporting requirements for parties with no compliance obligation. [B 04.01 – CIP]

Response: See Responses to A-2 and A-14.

A-23. Reporting to Multiple Jurisdictions will be Confusing
Comment: The reporting footprint for onshore petroleum and natural gas production is the geological basin. Oil and gas operators with multiple sites could be required to comply with air district, CARB, WCI, and federal reporting requirements. This will be confusing. [B 04.02 – CIP]

Response: The MRR was developed with consideration given to avoiding duplicative reporting requirements, and was harmonized with the U.S. EPA GHG reporting requirements to the extent feasible. However, it is not within the scope of the regulation to consolidate reporting programs across multiple independent agencies. Also see Response to A-2.

A-24. Oil and Gas Operators with Multiple Reporting Requirements
Comment: In the case of onshore petroleum and natural gas production, the reporting footprint is defined as the geological basin. Reporters would be required to determine and report emissions from stationary combustion, and specified process and vented emissions. Oil and gas operators in California with multiple locations, within a geological basin, could conceivably be required to comply with air district, CARB, WCI, and federal reporting requirements which will be confusing and costly, especially given the enforcement penalties at CARB's disposal for such things as "inaccurate information.". [B 04.03 – CIP]

Response: See Response to A-23.

A-25. Facility Definitions Related to Agricultural Facilities
Comment: ARB should be aware of facility definition issues related to agricultural facilities to ensure reporting equity between agricultural sources and other industrial sources. [T 07.02 – AGCO]

Response: ARB notes that staff worked with representatives of the agricultural industry to address the concerns expressed by the commenter. ARB believes that it has addressed these concerns by revising the MRR to exclude non-combustion emissions from livestock facilities and clarify the exemption for agricultural pumps.

A-26. Requirement to Report for 5 Years After Below 10,000 tons is Excessive
Comment: The requirement to report for 5 years after a facility falls below the 10,000 MT threshold is excessive and should be shortened. [OP 31.10 – WSPA]

Response: ARB agrees with the comment and has changed this requirement from 5 years to 3 years after a review of program needs.

A-27. Allow Abbreviated Reporting for non-C&T Facilities and No Verification
Comment: Would like to have the regulation language be modified to allow all facilities without compliance obligations under the cap-and-trade regulation to

report under the abbreviated reporting requirements and not be subject to third party verification requirements. [OP 33.02 – LACSD]

Response: In most cases facilities without a compliance obligation will be eligible for abbreviated reporting and not subject to verification. The exception will be for facilities with emissions above 25,000 metric tons CO_2e due to biomass fuel combustion. This 25,000 metric ton threshold represents substantial combustion emissions that ARB believes should be verified. See also Response to M-8.

A-28. Exclude Nitric Acid Plants Below 25,000 MT CO_2e/year
Comment: Provide a threshold of 25,000 MT CO_2e/year, rather than no threshold, in order to exclude nitric acid production facilities below the threshold from reporting. [OP 41.04 – SIMPLOT]

Response: ARB harmonized with U.S. EPA's reporting requirements, which do not include a reporting threshold for nitric acid production. Because nitric acid production facilities must report to U.S. EPA, the reporting burden to provide the identical information to ARB should be small.

A-29. Exclude Livestock Fugitive Emissions from Reporting
Comment: The regulation, as proposed, would require reporting by livestock facilities. This is not consistent with the intent expressed by ARB staff and management during discussions on this topic. [OP 18.01 – CCA]

Response: The commenter is correct. As initially proposed, livestock facilities producing manure would be subject to reporting under the MRR. This was not the intent of staff. Therefore, as part of the 15-day changes, the MRR was modified to specifically exclude reporting by facilities based on their GHG emissions from manure sources. Specifically, the following exclusion was added to section 95101(f)(7): Emissions from livestock manure management systems defined in 40 CFR Section 98 Subpart JJ, Section 98.360 to 98.368.

A-30. Exclude Livestock, Portable Engines, and Diesel Pumps
Comment: Support 15-day changes to ensure that emissions from livestock and manure, portable engines, and diesel pump engines are not subject to mandatory reporting. [T 13.01 – CCA]

Response: The MRR was been modified as suggested to clarify the intended reporting requirements.

A-31. Exclude Landfill Non-Combustion Emissions from Reporting
Comment: Revise section 95101 to state that reporting for MSW landfills is only required for MSW facility stationary combustion sources that have emissions exceeding 10,000 metric tons of CO_2e. All references should be to CFR Section 98, subpart C, for stationary combustion, rather than 40 CFR Section 98 subpart

HH for landfills. This will exclude non-combustion emissions from the applicability determination to be consistent with CARB's stated intent. [B 01.01 – RCWMD]

Response: As part of the 15-day changes, section 95101(f)(6) was added to the regulation to exclude reporting of fugitive methane emissions from municipal solid waste landfills. In addition, language was added to the applicability section (section 95101(b)(2)) to clarify the exclusion of vented and fugitive emissions from the 10,000 metric tons of CO_2e threshold.

A-32. Use Actual Emissions For Determining Applicability
Comment: Actual, and not modeled emissions, should be used to determine the emissions-based applicability to the rule. Need to clarify that for landfills, 40 CFR Section 98, subpart HH, is not required for estimating facility emissions under the ARB rule. [B 01.03 – RCWMD]

Response: Agreed. See response to A-31.

A-33. Exclude Biomass CO_2 Emissions from Reporting
Comment: Would like to have biogenic CO_2 emissions excluded because it is excluded from the federal applicability threshold. [OP 33.01 – LACSD]

Response: See Responses to A-4 and M-9.

A-34. Exclude Biomass CO_2 and Triennial Verification
Comment: ARB's proposed changes include going to an annual verification where EPA does not even require third party verification. Would ARB consider having an exemption for biomass CO_2 emissions and require only triennial verification? [OP 01.01 – CSDTPW]

Response: See Responses to A-4 and A-49. Verification is an important element for ensuring that reported biomass emissions are indeed exempt from a compliance obligation.

A-35. Support for Not Reporting Fire Suppression Equipment
Comment: Fire Suppression Equipment: RRI supports CARB's proposal to explicitly exempt fire suppression equipment from the reporting regulation. For electricity generators, fire pumps are *de minimis* sources for which data is time consuming and difficult to collect for little gain in overall emissions data. [OP 21.03 – RRI]

Response: Agreed. No change to regulation needed.

A-36. Portable Equipment
Comment: Previous guidance on portable equipment was for any equipment that was "not bolted down" was considered portable and was exempt from the reporting regulation. CARB now is proposing to further restrict portable

equipment with a time limitation.- that if a piece of equipment was not in the same location for 12 months then it was not portable. CARB should not impose this time limitation because if the equipment is not bolted down and emissions from the equipment are de minimis, it should not matter if the equipment resides at the same location for 12 months. [OP 21.02 – RRI]

Response: The definition of "Portable equipment" under the previous MRR also included the exclusion for equipment that resides at the same location for more than 12 consecutive months (title 17, California Code of Regulations, section 93116.2(28)), and that requirement is unchanged in the revised regulation. However, if the equipment is located at a seasonal facility, then the equipment is not considered portable if the equipment remains for at least two years and operates for at least three months each year. This was also true under the prior regulation.

A-37. MSW Cessation of Reporting

Comment: Do not reference subpart HH of 40 CFR Section 98 for MSW regarding cessation of reporting. With the removal of the reference to subpart HH for applicability, it is not relevant for cessation of reporting. [B 01.02 – RCWMDI]

Response: Staff reviewed the regulation and could not identify the stated reference related to cessation of reporting. In addition fugitive emissions from the sector are excluded from reporting, so no change to the regulation is required.

A-38. Facilities Subject to 2010 Reporting

Comment: Amend rule so those subject to reporting for the first time based on 2010 emissions do not have to report for only a single year under the prior regulation, but instead report based on the revised regulation based on 2011 emissions. [T 04 – DC]

Response: The revised regulation would take effect in time to affect reporting of 2011 emissions in 2012; it would not retrospectively govern reporting requirements for 2010 emissions in 2011.

A-39. Exclusion of "Chemically Converted" Carbon

Comment: Propose additional language under 95101(f) to exclude reporting of GHGs that are captured onsite and are chemically converted to stable, non-GHG, compounds. [OP 36.01 – CALERA]

Response: Currently, all producers of carbon dioxide are required under section 95123 of the MRR to report the amount of CO_2 produced. Both U.S. EPA and ARB require reporting of CO_2 transferred off-site for end use applications such as long-term storage and food and beverage use (if known). This regulation requires reporting only; decisions regarding exclusions from reporting requirements for captured and converted carbon will be made when the topic of carbon sequestration is addressed in later or separate rulemakings.

A-40. Applicability for Bonneville Power Administration

Comment: The Bonneville Power Administration (BPA) appreciates this opportunity to comment on these two matters scheduled for the California Air Resources Board's (ARB's) public hearing on December 16, 2010. Both matters are related to ARB's implementation of AB32. BPA's concerns are similar in both matters and, therefore, BPA is combining its comments in this one letter, which BPA will submit in both dockets. However, BPA disagrees with ARB's suggestions in its greenhouse gas reporting rules and cap & trade rules that it has "authority" to regulate BPA and that BPA is "required" to comply. §§ 95101(d)(5), 95102(a)(102), 95802(a)(59). BPA wishes to make clear that BPA is participating in California's GHG reporting program and cap & trade program purely on a voluntary basis, and BPA is not conceding that California has any jurisdiction over BPA. Sovereign immunity may prevent BPA (and similarly WAPA) from being subject to these regulations. Despite ARB's position that the Clean Air Act waives sovereign immunity, it is questionable whether that waiver would cover BPA because it is purely a marketer that is not engaged in an activity that discharges pollutants. Further, although BPA intends to voluntarily comply with these regulations, BPA is concerned that mandatory regulations could interfere with its existing contracts and conflict with the marketing scheme established by Congress in BPA's governing statutes. In any event, these two rulemaking proceedings are not well-suited as forums for resolving these issues. Moreover, because BPA is willing to voluntarily comply, it is not necessary for ARB to include these jurisdictional assertions in its rules. Doing so could unnecessarily raise complicated legal issues that are unnecessary to full and timely implementation of the greenhouse gas reporting rules and/or the cap & trade program. Accordingly, BPA urges ARB to modify sections 95101(d)(5), 95102(a)(102), and section 95802(a)(59) (same definition of "Electricity importers" as the definition used in § 95102(a)(102)) in one of two ways. Either by simply deleting the unnecessary language entirely, as indicated in strikethrough. Or, by modifying it as indicated in underline. The excerpts provided in the full comment letter illustrate both options for each of the three sections.

DELETE OPTION FOR § 95101:

(d) *Electric Power Entities.* The entities listed below are required to report under this article:

(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
~~(4) Western Area Power Administration (WAPA);~~
~~(5) Bonneville Power Administration (BPA).~~

OR MODIFICATION OPTION FOR § 95101:

(d) *Electric Power Entities.* The entities listed below are required to report under this article:

(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
(4) Western Area Power Administration (WAPA), unless it voluntarily reports under these regulations;
(5) Bonneville Power Administration (BPA), unless it voluntarily reports under these regulations.

DELETE OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(102) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~State agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB.

OR MODIFICATION OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(102) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~State agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). Federal agencies, including Western Area Power Administration (WAPA) and Bonneville Power Administration (BPA), are not subject to these regulations so long as they voluntarily report under these regulations. When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB. [OP 26.02 – BPA]

Response: ARB believes that section 118 of the Clean Air Act waives sovereign immunity for BPA, and other facilities subject to the MRR which are operated by federal agencies. Additionally, this document only responds to comments regarding the mandatory reporting regulation (which includes section 95102) but

does not include the other specific sections with which BPA takes issue which are included in the cap-and-trade regulation. Although the definition of "electricity importer" has changed through the course of two 15-day notices, BPA, DWR and WAPA remain specifically named as electricity importers to California and subject to the mandatory reporting regulation. Title 42 U.S.C. section 7418 (Section 118) specifically states:

> (a) General Compliance
> Each department, agency, and instrumentality of the executive, legislative and judicial branches of the Federal Government
> (1) Having jurisdiction over any property or facility, or
> (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, and each officer, agent, or employee thereof, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity. The preceding sentence shall apply
> (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement whatsoever),
> (B) to any requirement to pay a fee or charge imposed by any State or local agency to defray the costs of its air pollution regulatory program,
> (C) to the exercise of any Federal, State, or local administrative authority, and
> (D) to any process and sanction, whether enforced in Federal, State, or local courts, or in any other manner. This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law. No officer, agent, or employee of the United States shall be personally liable for any civil penalty for which he is not otherwise liable.

Section 118 is clear. Environmental laws of California apply to BPA "notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law." ARB appreciates BPA's participation in the programs operated by ARB.

§95102 Definitions

The reader is advised that comments on the following definitions are addressed in sections D and P of this document, in the context of related comments on electric power entity reporting:

- Asset-controlling supplier
- Delivered electricity

- Direct delivery of electricity
- Electricity exporter
- Electricity importers
- Generation providing entity (GPE)
- Imported electricity, exported electricity, and electricity wheeled through California
- Purchasing-selling entity (PSE), marketer, and retail provider
- Qualified exports
- Replacement electricity
- Specified source of electricity
- Unspecified source of electricity
- Substitute power or substitute electricity
- Tolling agreement
- Variable renewable resource
- Written power contract

A-41. Definition of Carbon Conversion
Comment: Calera suggests the following language changes to the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions:

§ 95102 (a) (156) – add the following language to the end of the current definition for "greenhouse gas emission reduction": "…and shall include chemical conversion of greenhouse gases to stable non-GHG forms." [OP 36.02 – CALERA]

Response: See Response to A-39. The commenter's suggested change is premature but should be considered further if a future rulemaking addresses carbon capture and sequestration.

A-42. Definition of Converted Carbon
Comment: Calera suggests the following language changes to the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions:

§ 95102 (a) Definitions – add a subsection for the following definition: " 'Carbon conversion' means the generally permanent conversion of carbon dioxide to non-GHG forms, such as carbonate, calcium carbonate, magnesium carbonate, bicarbonate, and other stable chemicals that are not greenhouse gases and will not readily revert to GHG forms." [OP 36.03 – CALERA]

Response: See Responses to A-39 and A-41.

A-43. Fossil Fuel

Comment: Fossil Fuels - the definition in the proposed regulation is an outdated definition taken from the U.S. EPA mandatory reporting regulation. We recommend that the definition be changed to the current definition in the federal regulation: Fossil fuel means natural gas, petroleum,. coal, or any form of solid, liquid, or gaseous fuel derived from such material, for purpose of creating useful heat. [OP 33.03 – LACSD]

Response: The definition for "fossil fuel" was revised to more closely align with U.S. EPA's definition.

A-44. Hydrocarbons

Comment: Definition of Greenhouse Gas - the term "hydrocarbons" appears to be a typographical error and should be removed from this definition. [OP 33.04 – LACSD]

Response: This typographical error has been corrected.

A-45. Useful Thermal Energy

Comment: The definition of useful thermal energy should be modified to exclude waste heat and be consistent with other state and federal policies. [OP 07.06 – PGE]

Response: This definition has been removed because the term "useful thermal output" is no longer used in the regulation.

A-46. Facility Definition

Comment: The definition of "facility" should be revised so that where there are different electricity generating units or sets of units on the same site with common operational control but different ownership, the operator should be permitted to classify the units or sets of units as separate facilities for reporting purposes, similar to the flexibility given to the operators of military installations. Separate reporting will permit separate reporting for generation facilities for which the emissions liability will be met ultimately by different parties even though the facilities are located on a contiguous piece of property.

Electricity generating units can have complex ownership and operational structures. The owner of the land on which a unit stands, the owner(s) of the unit, and the owner(s) of the power generated by that unit, may be different entities or groups of entities. The operator of the units may be one of those owners or another entity altogether. Units on the same property may be owned by different entities. For example, several SCPPA members (Anaheim, Burbank, Cerritos, Colton, Glendale, and Pasadena) participate in a generating unit, the Magnolia Power Project ("Magnolia"). Magnolia is owned by SCPPA. Magnolia is adjacent to other generating units that Burbank Water & Power ("Burbank") owns and operates for its own account at the generating station complex in Burbank,

California. Burbank operates Magnolia for the benefit of the SCPPA participants. Power is delivered from Magnolia to the participants in accordance with their participation agreement. Fuel (natural gas) is provided to Magnolia by each participant in proportion to the amount of power Magnolia generates for the account of that participant. Burbank may have the direct compliance obligation for Magnolia under the cap-and-trade regulation, but SCPPA members that obtain power from Magnolia will be responsible for transferring allowances to Burbank to cover the compliance obligation for the portion of Magnolia emissions associated with the power they obtain from Magnolia. (SCPPA submitted comments on the cap-and-trade regulation regarding such transfers on December 1, 2010.) The emissions liability that Burbank may have for Magnolia as the operator of Magnolia should be distinguished from the emissions liability that Burbank will have for the other Burbank units at the Burbank generating station site. To do this, Burbank as operator of Magnolia should be permitted to submit separate reports for Magnolia rather than reporting Magnolia as part of Burbank's reports for Burbank's own units. [OP 25.01– SCPPA1]

Response: See Response to M-33.

A-47. Maximum Potential Fuel Flow Rate
Comment: Fuel Consumption – 95129, Section (d)(1) and (d)(2). Although the term "maximum potential fuel flow rate" is defined in the definitions section, WSPA recommends ARB provide more clarification as to what the term means. It is not clear whether the fuel flow rate corresponds with the maximum heat input capacity of the unit or the maximum fuel flow rate at which the unit would routinely operate. [OP 31.19b – WSPA]

Response: Clarification has been added to the definition of "maximum potential fuel flow rate" to indicate that it is the maximum fuel flow rate of the equipment.

A-48. Definitions – Greenhouse Gases
Comment: The word "hydrocarbon" should be removed from the definition (#155) of "greenhouse gases." [OP 31.11 – WSPA]

Response: ARB agrees with the commenter; this change has been made.

A-49. The Term Biomass-Derived Fuels is Confusing
Comment: The use of "biomass" in "biomass-derived fuels" is confusing since "biomass" already has a preexisting and different meaning in the energy industry. The term "organic" or "organically derived" should be used instead. Additionally, the preexisting meaning does not include biomethane. [OP 04.01 – JW]

Response: ARB needed a term that encompassed all biofuels, and biomass-derived fuel was selected to emphasize the point that all the fuel is, or is derived from, biomass. The term is clearly defined in section 95102 and ARB believes the definition is sufficient.

A-50. Request for Definition of Biomethane
Comment: Commenter understand that staff plans to add defined term "biomethane" as "pipeline-quality biomass-derived fuel" If staff adopts "organic" or organically derived" in place of "biomass" this definition would read "pipeline-quality organically derived fuel". [OP 04.02 – JW]

Response: See Response to A-49. ARB agrees that biomethane needs to be defined and has added a definition to section 95102.

A-51. Incorrect Cross-Reference in Biomass-Derived Fuel Definition
Comment: The cross-reference in the definition of "Other Biomass-Derived Fuel" should be corrected. The definition of "Other Biomass-Derived Fuel" in section 95102(a)(231) contains a cross-reference to section 95852(g) of the cap-and-trade regulation. However, that section of the cap-and-trade regulation refers to suppliers of carbon dioxide. It appears that the correct reference should be to section 95852.1 of the cap-and-trade regulation, Compliance Obligations for Biomass-Derived Fuels. [OP 06.04 – SCPPA1]

Response: ARB has modified the definition of this term in section 95102(a) and believes the modification addresses the commenter's concerns.

A-52. Adopt EPA Definition of Pipeline Quality Natural Gas
Comment: Section 95102 (239) contains a definition of pipeline quality gas that is slightly different than the definition in EPA's reporting regulations. The definition is important because many reporting requirements can be met by certifying that the fuel used was "pipeline quality." PG&E recommends that ARB adopt the definition set forth in 40 CFR 72.2 as noted below so that the state and federal reporting regulations are consistent. [OP 07.01 – PGE]

Response: For purposes of the MRR, ARB has defined a range in composition of "pipeline quality natural gas" consistent with other Western Climate Initiative (WCI) member jurisdictions. WCI found that use of Tier 1 and Tier 2 methods for gas outside this composition may cause significant errors in CO_2 estimation. Modifications were made to section 95122 to allow natural gas suppliers to report small amounts of natural gas outside pipeline quality using default emission factors. Based on this, ARB declines to make the requested modification.

§95103 General Greenhouse Gas Reporting Requirements

A-53. Timing for Missing Data Provisions
Comment: Request that ARB confirm, under section 95103(h) of the reporting regulation, that missing data provisions do not go into effect until reporting 2012 data in 2013. [OP 11.02 – CSCME]

Response: This interpretation is correct, and was clarified with additional language in 95125(h), as shown: “For 2012 reports of 2011 emissions by facilities and suppliers, the missing data substitution requirements specified in this article that are different from the requirements of 40 CFR Part 98 do not apply; missing data for the 2012 report of 2011 emissions must be substituted according to the requirements of 40 CFR Part 98.”

A-54. Providing Clear Deadlines
Comment: Request clarification from ARB that as rule changes are made in 2011, industry will be given sufficient time to comply and clear deadlines will be specified. [OP 11.06 – CSCME]

Response: ARB believes the MRR contains clear deadlines. Moreover, ARB has worked with industry stakeholders throughout the rulemaking process, including through notices and comment periods, and has designed the MRR to ensure sufficient time to comply.

A-55. Modify Reporting Deadlines
Comment: WSPA understands ARB’s stated reasons to advance both the reporting and verification deadlines to align with Federal reporting time requirements, and also to conduct the annual true-up required in the proposed Cap and Trade program. However, WSPA is concerned that further compressing the report and verification time deadlines will only increase the potential for reporting data errors. The additional new ARB requirements that go beyond the Federal requirements, such as calculating missing data requirements and calculation requirements for all flaring events, as well as other provisions, will require significant additional time to develop and incorporate into the California Reports.

Recommendation: ARB should set the report submittal and verification timeline deadlines at May 1 and November 1 respectively, or consider developing a staggered submittal deadline schedule to allow as much time as possible for operators to submit their [OP 31.07 – WSPA]

Response: ARB incorporated changes regarding timing and schedules in response to public comments received and for regulatory program needs. The annual reporting deadline was changed from April 1 to April 10 for facilities and suppliers. This is to allow additional time for reporting as well as to avoid having the ARB deadline be in conflict with the U.S. EPA greenhouse gas reporting deadline. It was not possible to push the deadline back to May 1 as the commenter requests without unacceptably compressing the verification period. See also Responses to M-53 and M-60.

A-56. Reporting Timing Requirements
Comment: Section 95103(h) states that emission data reports are due in 2012 (for the 2011 data collection year). However, required monitoring equipment and

procedures will not be in place during 2011. As a result, operators must report using the applicable monitoring and calculation methods in EPA 40 CFR, Part 98. While WSPA appreciates ARB's recognition that 2011 will be a Phase-in year to allow operators to transition to the new reporting regulation, we recommend ARB provide clarification on the following: (1) Consistent with the staff report section entitled "Phase-in Year" (p.11 of the Staff Report), WSPA recommends ARB clarify that the proposed Reporting regulation and requirements apply to the 2012 emission data gathering year (report due in 2013). (2) For the 2011 emission data gathering year, facilities and suppliers should use EPA 40 CFR, Part 98 reporting requirements, which will also satisfy ARB 2011 reporting requirements. (3) The phase-in process will allow facilities and suppliers the time to address any changes in monitoring requirements and will not immediately go into effect in 2011. (4) For owners of monitoring equipment that have applied for EPA Best Available Monitoring Method (BAMM) extension per 40 CFR 98.3(j), ARB will allow the use of BAMM as stated in the EPA BAMM extension request. (5) ARB should clarify that all applicable requirements, including enforcement provisions under the current ARB MRR program, apply to facilities and suppliers for their 2011 Reports (for their 2010 emission data year). This interpretation avoids any confusion that the proposed regulation requirements do not retroactively apply to the 2010 emission report year. [OP 31.12 – WSPA]

Response: The commenter is correct that the first data gathering year affected by the revised monitoring requirements is 2012, not 2011, Under section 95103(h), facilities may report 2011 data in 2012 using the requirements of 40 CFR Part 98 or, where not subject to 40 CFR Part 98, facilities and suppliers may use best available methods. (Note that suppliers of transportation fuels are different entities under the California regulation, so not subject to 40 CFR Part 98.) The California regulation also incorporates U.S. EPA BAMM provisions through April 25, 2011, but not thereafter.

A-57. Timing for Verification Deadline

Comment: Section 95103(f) - The commenter requests that the verification deadline be consolidated to October 1 each year for both operators and suppliers and electric power entities. Utilities however recognize that this is not possible due to the need to coordinate timing with the EPA requirements for facility operators and suppliers. That said CARB has the ability to consolidate verification requirements in an effort to increase administrative simplicity and harmonization for the reporter given that third party verification is not mandated under 40 CFR section 98.3(f). It is beneficial to retail providers; also this is a method for reducing the cost of verification due to less site visits needing to be performed. [OP 29.01-RMTUD]

Response: The verification deadline was consolidated in the first 15-day modification as requested; however, to meet the timeframes required by the cap-and-trade regulation, the verification deadline is now September 1 each year.

A-58. Timing for Verification Deadline
Comment: The ARB verification process should follow U.S. EPA's requirements and third party verification should not be required. [OP 41.02-SIMPLOT]

Response: Third party verification is necessary to ensure GHG emissions data are verified and available for use in and in support of the cap-and-trade program.

A-59. Changes to Methods Too Restrictive
Comment: Changes in Methodology: Section 95103(m) is to restrict reporters from making changes to GHG monitoring and calculation methods after January 1, 2012. This would unnecessarily be restrictive and would provide a disincentive to aim for a higher tier of data quality beyond 2013. CARB should consider offering some flexibility with this requirement, and allow case by case consideration of upgrades to monitoring and reporting methods after January 1, 2013. [OP 21.05 – RRI]

Response: ARB believes the provisions of section 95103(m) provide sufficient flexibility to improve emissions quantification while minimizing any risk of altering methods to reduce or avoid a cap-and-trade compliance obligation. In particular, these provisions allow for permanent improvement in emissions calculation methods after January 1, 2013, and provide that in exceptional circumstances the Executive Officer may approve in advance the use of an alternative calculation method.

A-60. Records Retention
Comment: Records should not be required to be retained for ten years. This period is unreasonably long. In the interest of harmonization with U.S. EPA, the MRR record retention period should be similar to the period that is required by the EPA as much as possible. SCPPA recommends that records be retained until the end of the compliance period following the compliance period for which the record is relevant. The result would be that records would be retained for three to six years, depending upon the point in a compliance period at which a record was developed. [OP 06.06 – SCPPA1]

Response: Data retention for 10 years is needed to support section 95858 of the cap-and-trade regulation, the provision for the make-up of under reporting in previous compliance period when the prior obligation was met. ARB believes it will be necessary to have records for a full 10 years in order to work through the make-up requirements and any subsequent enforcement or legal questions as needed.

A-61. Records Retention
Comment: The Regulation Order proposes a 10-year record retention requirement on Covered Entities. MSCG questions the need for such an extended period. By way of comparison, a quick survey by MSCG indicated that FERC has a 5-year retention policy, as do the CFTC and SEC. EPA has different

requirements for different pollution events, but uses a 5-year requirement for Transactions. In light of what appears to be a de facto standard of 5 years among Federal Regulatory agencies with similar responsibilities, the 10-year standard proposed by CARB would be an outlier. Therefore, in order to minimize unnecessary compliance costs for market participants, we urge CARB to adopt a 5-year record retention standard, rather than the proposed 10. [OP C&T 498 MRR 6—MSCG]

Response: See Response to A-60.

A-62. Limit Records Retention to Six Years
Comment: The 10 year data retention requirement is excessive and should be limited to six years. [OP 31.16 – WSPA]

Response: See Response to A-60.

A-63. Weekly Recordkeeping
Comment: Request that ARB clarify, under section 95103(l), that the weekly recordkeeping for fuel consumption not apply to facilities that are determining fuel throughput using vendor invoices and inventory measurements. [OP 10.05 – CSCME]

Response: The specific requirement to carry out weekly fuel monitoring in section 95103(l) has been deleted. But section 95105 was modified for the GHG Monitoring plan to require a fuel monitoring plan "to verify on a regular basis the proper functioning of fuel measurement equipment that is subject to the accuracy requirement of this article."

A-64. Weekly Fuel Monitoring Applicability
Comment: PG&E would like an exception to the weekly monitoring for small meters. Small utility meters are also only read monthly. [OP 07.02 – PGE]

Response: The mandatory weekly monitoring requirement in section 95103(l) has been deleted and replaced with a voluntary provision in section 95105(c)(10), which is only required for operators who wish to preserve the option to use the missing data substitution procedure in section 95129(d)(2). The commenter should assess their existing meter monitoring and maintenance practices as well as the risk of meter outages to decide whether they want to preserve the option to use section 95129(d)(2). The commenter's choice will determine whether the meters should be read weekly or not.

A-65. Weekly Fuel Monitoring Frequency
Comment: Weekly monitoring should be amended to monthly. [OP 20.03 – SEU]

Response: The frequency of the fuel monitoring requirement is designed to prevent catastrophic loss of fuel consumption data and to provide historical data

in sufficient resolution for missing data substitution under section 95129(d)(2). ARB has not changed the frequency, but has changed the requirement from being mandatory to voluntary for those operators that wish to preserve the option to use the missing data procedure in section 95129(d)(2). See section 95105(c)(10) for the revised rule language. (It was 95103(l) in the original proposal.) Also see Responses to A-63 and A-64for information related to weekly fuel monitoring.

A-66. Use Automatic Data Collection System for Fuel Monitoring
Comment: ARB should add language to state that if a meter is part of or monitored by a computer data collection system that this fulfills the requirement to check meters weekly. [OP 31.14 – WSPA]

Response: The mandatory weekly monitoring requirement in section 95103(l) has been deleted and replaced by a voluntary provision in section 95105(c)(10), which is only required for operators who wish to preserve the option to use the missing data substitution procedure in section 95129(d)(2). Section 95105(c)(10) clarifies that computer data collection system can be used to fulfill the requirement of weekly fuel monitoring. Also see Responses to A-63 and A-64 for information related to weekly fuel monitoring.

A-67. Weekly Fuel Monitoring Applicability
Comment: Weekly Fuel Monitoring: Section 95103(l) of the proposed reporting regulation describes the weekly fuel monitoring and QA procedures. It is unclear in the current version of the proposed regulation which specific types of equipment and fuel usage will be subject to this requirement. For smaller (*de minimis*) equipment, CARB should not require weekly fuel monitoring in support of the missing data procedures if *de minimis* reporting methods are used. According to correspondence with Patrick Gaffney, CARB does not intend to apply 95103(l) to utility meters since those already have QA procedures through the California Public Utilities Commission. CARB should ensure that section 95103(1) is clarified in the final regulation to state that this requirement is specifically for measurement equipment operated by the reporter that is used for the facility GHG calculation. [OP 21.04– RRI]

Response: The mandatory weekly monitoring requirement in section 95103(l) has been deleted and replaced by a voluntary provision in section 95105(c)(10), which is only required for operators who wish to preserve the option to use the missing data substitution procedure in section 95129(d)(2). Section 95129(d) has been revised to clarify that the missing data procedures in section 95129(d) do not apply to *de minimis* sources. These changes make weekly monitoring of meters for *de minimis* sources optional.

A-68. *De Minimis* Provision
Comment: WSPA supports ARB's efforts to align their reporting requirements with the Federal MRR regulations, including Subpart W requirements for Oil &

Gas Production operations. However, WSPA is concerned about the impact on the de-minimis provisions given the change in the definition of an oil and gas facility from the current “field” definition to one that encompasses a “basin-wide” definition. In many cases, there are multiple field operations located within a basin, and therefore, the facility definition would potentially reduce (by a factor of perhaps 5 to 10, or maybe more) ARB’s current de-minimis reporting allowance. Recommendation: In order to maintain the current de-minimis provisions in the California reporting program, ARB should clarify the de-minimis provision by revising Section 95151(a)(2),by adding the following:
95151(a)(2) For purposes of compliance with the de-minimis provision in Section 95103(i), the operators of on shore oil and gas facilities shall use the facility definition in 95102(120). [OP 31.03 – WSPA]

Response: The regulation applies *de minimis* thresholds at the "facility" level, and oil and gas production facilities are defined basinwide, consistent with U.S. EPA requirements and with the handling of *de minimis* for oil and gas production facilities in other WCI jurisdictions. ARB understands this may limit the flexibility provided by *de minimis* reporting for these types of facilities, but allowing *de minimis* thresholds to be applied to each individual field is likely to result in unacceptable reductions in accuracy for the vented emissions sources for which improved data are essential. ARB also notes that *de minimis* thresholds may be applied separately, and consistently with the definition of facility cited by the commenter, for the other (non-production) facility types within each basin.

A-69. Meter Accuracy

Comment: WSPA recommends ARB clarify in Section 95103(k) that the calibration and meter requirements specified in EPA 40 CFR 98.3(i, apply to only those measurement devices that are subject to this section as cited by applicable subparts of the EPA GHG MRR regulation.

Section 95103(k) requires an operator or supplier to submit to the Executive Officer (EO) a request to postpone conducting meter inspections and accuracy assessment in the event such testing cannot be done due to infrequent outages or shutdowns.

This requirement is above what is required in 40 CFR 98.3(i) and we believe it provides little if any added benefit, and therefore recommend ARB remove this requirement. [OP 31.13 – WSPA]

Response: Section 95103(k) was modified to clarify what is expected for meter accuracy following U.S, EPA changes promulgated December 17, 2010 (subsequent to Board action) The requirement for Executive Officer approval has been maintained so that ARB can track the frequency of missed calibrations and how data accuracy may be affected.

A-70. Biomass Reporting

Comment: With respect to biomass energy and fuels, we do support biomass for these purposes. However, we do also believe that the combustion of biomass and the associated greenhouse emissions should have compliance associated with it. While the combustion may be offset by forest regrowth upstream, there is not a guarantee you could have emissions that increase upstream to produce the materials for combustion downstream. So related to this, we do in the mandatory reporting recommend that suppliers and providers do report on biomass. This is important from an accounting perspective and also from a double counting perspective. You could imagine there would be offsets coming from certain forested areas as well as materials being provided for biomass energy. [T 01.01 – TNC]

Response: Section 95103(j) requires reporting of all biomass-derived fuels and associated emissions, consistent with the commenter's recommendation. The specification of compliance obligations is addressed in the cap-and-trade regulation.

A-71. Biomass Reporting

Comment: In addition to the cap and trade rule's exemption of bioenergy emissions, we also understand that the Mandatory Reporting Rule does not generally require reporting of the type of information necessary to calculate net carbon flux associated with bioenergy feedstock production. As stated above, accounting for changes in sequestered carbon (at the local and regional scale), along with other parameters are needed to calculate net GHG emissions. However, these additional reporting requirements must be counterbalanced by the need to avoid unnecessarily overburdensome requirements. Accordingly, as CARB endeavors to determine the actual carbon impact of bioenergy production, important modifications to the MRR will be necessary, but must be dome in a thoughtful and balanced manner. . Without an improved accounting framework, ARB will not accurately account for the GHG impacts of biomass energy and will incur risk of significant uncounted increases in GHG emissions. [C&T 214 – EC1, [C&T 620.01 – EC3]

Response: ARB agrees that capturing sufficient information through mandatory reporting to calculate net carbon flux for all types of biomass would be extraordinarily difficult. However, section 95103(j) has been modified to capture data about the source of forest-derived biomass. This provision along with California Forest Practice Rules and National Environmental Policy Act identifiers will allow for tracking of the location of harvest for all forest-derived biomass.

A-72. Biomass Reporting

Comment: The potential upstream land use impacts of biomass energy and fuels for a cap and trade program are comparable to those associated with the production of biofuels for California's Low Carbon Fuel Standard (LCFS). CARB has been and continues to invest considerable time and effort to account for

indirect land use impacts, GHG emissions and sustainability for forest biofuels in its LCFS. Given the similarity in upstream accounting issues and potential environmental impacts with respect to biomass energy and fuels in the cap and trade program, the GHG treatment and sustainability considerations should be consistent across programs. TNC recommends that ARB amend § 95852.2 (a)(4)(A) of the cap and trade regulations and § 95852.2 et al. of the mandatory reporting regulation to include upstream biological emissions associated with the land use impacts and management of feedstock. The accounting and reporting guidance should be developed in 2011 prior to the regulations taking effect in 2012 and should require biomass fuel suppliers to report biological emissions associated with the feedstock. In the near term, CARB should require fuel users to report the origins of biomass for fuel. The sustainability standard developed pursuant to the LCFS should also apply to the biomass used for energy within the cap and trade program. [C&T 182 – TNC1, C&T 22 – TNC2]

Response: The regulation is designed to collect direct emissions information, rather than lifecycle emissions or upstream biological emissions associated with the land use impacts and management of feedstock, which may be subject to considerable uncertainty. ARB notes, however, that section 95103(j) has been modified to capture data about the source of forest-derived biomass. This provision along with California Forest Practice Rules and National Environmental Policy Act identifiers will allow for tracking of the location of harvest for all forest-derived biomass and allow for further investigation of biomass-derived fuel emissions.

A-73. Biomass-Derived Fuel Reporting

Comment: If ARB decides they don't want to put biomass into the cap -- we think it should be -- but we would also urge you to at the very least make sure that you're getting good monitoring and reporting of where the material is coming from so you could monitor whether the lack of a compliance obligation creates an incentive for mining the forests for exact carbon to create that energy and so you can keep track and potentially use adaptive management if you do need to take steps to bring biomass under the cap.[T 02.01 – PFT]

Response: Section 95103(j) requires reporting of all biomass-derived fuels and associated emissions, and has also been modified to capture data about the source of forest-derived biomass. This provision along with California Forest Practice Rules and National Environmental Policy Act identifiers will allow for tracking of the location of harvest for all forest-derived biomass.

A-74. Biomass-Derived Fuel Reporting

Comment: We appreciate the proposed changes in Appendix B regarding compliance obligations for the combustion of biogas but would note there are biogas-biomass issues in the reporting regulations as mentioned by Norman Pederson earlier this afternoon, ask that staff be directed to work with stakeholders to resolve these. [T 14.01 – SMUD2]

Response: Subsequent to this testimony ARB staff worked with all interested stakeholders to establish comprehensive but reasonable biomass-derived fuel reporting and verification requirements.

§95104 Greenhouse Gas Emissions Data Report

A-75. Local Air District Reporting Tool Review
Comment: The regulation (section 95104(e)) includes a provision which provides a pathway for a local air district to develop a consolidated reporting tool that facilities in their jurisdiction could use to report GHG emissions to CARB using an approved local air district program. SCAQMD request a commitment from CARB that the contractor that developed the CARB reporting system can review the SCAQMD system and then the SCAQMD system be updated to match the modifications to the ARB mandatory reporting rule. [OP 22.04 – SCAQMD, OP 09.25 – CAPCOA]

Response: AB 32 specifically authorizes and mandates that ARB promulgate and implement a GHG reporting regulation, which provides for a single, consistent reporting program statewide. Section 95104(e) of the regulation permits use of other reporting tools when approved by the Executive Officer. ARB will want to consider whether an alternative tool can serve the needs of the program, including providing correct input to a single database, allowing for verifier review and action, preserving confidential information vital to the cap-and-trade program, and meeting other control program needs. Because AB 32 assigns to ARB the responsibility for GHG mandatory reporting, ARB must assess carefully whether any alternative reporting mechanism can effectively and seamlessly meet the multiple requirements of the program.

A-76. Local Air District Reporting Tool Review
Comment: Add: BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work collaboratively and in a timely manner with local air districts that have or will develop reporting tools designed to consolidate emission reporting pursuant to section 95104(e). [OP 22.45 – SCAQMD]

Response: See Response to A-75.

A-77. Consolidated Reporting Tool
Comment: The regulation for the mandatory reporting of greenhouse gas emissions includes a provision that allows a local air district to develop a consolidated reporting tool that facilities in their jurisdiction could use to report greenhouse gas emissions to CARB using an approved local air district program. SCAQMD staff requests a commitment from CARB that the contractor that developed the CARB reporting system can review the SCAQMD system (at

SCAQMD expense). Then, the SCAQMD system could be updated to match the modifications to the mandatory reporting rule. Consolidated reporting serves both our agencies and businesses by avoiding duplicative reporting and reducing inconsistencies that are inevitable if the same information is reported to two agencies. [C&T 636.01 – SCAQMD]

Response: See Response to A-75.

A-78. Designated Representative for Electric Power Entity
Comment: Section 95104(b) Designated Representative – Under this provision, each reporting entity must designate a reporting representative and adhere to the requirements for this representative pursuant to 40 CFR §98.4. Establishing a Designated Representative for an Electric Power Entity (§95111) will be unique to ARB's reporting program because the U.S. EPA reporting program does not include reporting of electricity transactions. SMUD recommends that the ARB include a process to register Designated Representatives for reporting entities that are outside of the U.S. EPA reporting program, such as an Electricity Power Entity. [OP 35.02 – SMUD]

Response: Although electric power entities are not subject to the U.S. EPA reporting program, ARB believes the principles of establishing and documenting a Designated Representative as specified in the U.S. EPA regulation can and should be applied for consistency among all reporting entities. ARB believes no change to the regulation is needed.

A-79. Availability of ARB ID Numbers
Comment: Guidance is requested on how to obtain ARB ID numbers in situations where operators sell power or thermal energy to customers. [OP 31.15 – WSPA]

Response: ARB ID numbers of all reporting entities are available at the ARB GHG Reporting Program website, at http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm. ARB plans to continue to make such lists available to the public.

§95105 Recordkeeping Requirements

A-80. GHG Monitoring Plan for Electric Power Entities
Comments: A greenhouse gas monitoring plan, as referenced in section 95101(c) and specified in section 95105(c) is not directly relevant for Electric Power Entities. [OP 20.06 – SEU]

Section 95105(c) GHG Monitoring Plan – Under this provision, each reporting entity must have a GHG Monitoring Plan that meets the requirements of 40 CFR §98.3(g)(5). The elements to be included in the Plan, which are listed in the regulation, are associated with reporting GHG emissions and fuels from

Facilities, but not electricity imports and power transactions. SMUD recommends that the ARB modify its reporting regulation and/or provide guidance on the elements to include in a GHG Monitoring Plan for an Electric Power Entity that reports electricity imports and power transactions. [OP 35.03—SMUD]

Response: The comments are correct. To resolve the issue, section 95105(d) was added to the regulation to specify that in lieu of a GHG Monitoring Plan, electric power entities must prepare GHG Inventory Program documentation as specified in that paragraph. ARB limited the requirements to electric power entities that import or export electricity and added specification for required records. These changes were made to improve clarity and address comments.

§95106 Confidentiality

A-81. Limiting Public Information
Comment: Additional language should be added limiting "public" information to that data reported to EPA and released to the public. [OP 31.01 – WSPA]

Response: The change was made as requested to section 95106(a), which now designates any data released by U.S. EPA as public information to also be public information under the ARB rule, regardless of its U.S. EPA confidentiality determination.

A-82. Sharing Public Information
Comment: In general EDF finds that CARB's modification to the reporting rule was accurate and necessary to achieve the desired results. However, EDF respectfully requests that where output based benchmarking is used to determine the allowance distribution for specific facilities, such initial information be made public through the mandatory reporting process. This would enable the public to understand how emissions budgets are calculated and the basis for allocation allotments to specific sectors. [C&T 496 – EDF]

Response: ARB shares the commenter's desire to maximize public access to reported data. Product output data may for some industries be considered a trade secret, however, and ARB is required to handle claims of confidentiality consistent with the procedures specified in title 17, California Code of Regulations, sections 91000 to 91022. This process includes demonstrated justification for claims of confidentiality when members of the public request access to data.

B. Subarticle 1. Enforcement and Standardized Methods §95107 – §95109

§95107 Enforcement

B-1. Original enforcement language in 95107(a) should be retained
Comment: One of the proposed amendments to the MRR is to delete the existing language in Section 95107(a) of the MRR which states:

"Knowing submission of false information, with intent to deceive, to the Executive Officer or verification body, shall constitute a single, separate violation of the requirements of this article for each day after the information has been received by the Executive Officer."

and replace it with the following:

"Each day or portion thereof that any report required by this article remains unsubmitted, is submitted late, or contains information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method is a separate violation. For purposes of this section, "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article."

It is appropriate that the enforcement structure should treat knowing submission of false information differently than minor unintentional mistakes. Knowing or intentional submission of inaccurate information should be subject to a greater penalty. Minor, unintentional errors should not be subject to the same enforcement penalties. However, the proposed replacement language would eliminate this important distinction. The original language in Section 95107(a) should be retained to ensure that submission of false information is treated differently than unintentional minor reporting errors. [OP 38.01a – LADWP]

Response: ARB believes that existing statutory provisions underlying the enforcement language in section 95107 of the MRR already take into account differences between violations which were intentional in nature versus those that were unintentional. The Health and Safety Code contains different maximum penalty amounts for violations which occurred under various mental states, including strict liability, negligence, knowing acts, and intentional acts. (See Health and Safety Code sections 42400-42402.3). As such, ARB does not agree with the commenter that removing the intent language from the enforcement provisions of the MRR eliminates the existing statutory distinction between intentional and unintentional violations. If ARB determines some intentional violation occurred, it may choose to pursue a higher penalty amount pursuant to statute. However, ARB does not wish to tie its hands by always having to prove intentional acts. In replacing the "knowing with intent to deceive language," ARB is ensuring that it maintains the ability to enforce against violations pursuant to

existing statutory authority, and is promoting the integrity of the reported data that will be used for the cap-and-trade regulation. As explained in the Staff Report, strict liability is the normal standard for the imposition of civil liability in environmental regulatory programs. In fact, AB 32's enforcement provisions expressly incorporate the existing statutory enforcement provisions referenced above without any statutory language indicating an intent to require a higher, narrower standard of "knowing" or "intent to deceive" in every instance. Virtually all ARB environmental regulations use the normal strict liability standard, rather than the knowing, with intent to deceive standard. Finally, ARB notes that pursuant to Health and Safety Code section 42403(b), which is explicitly referenced in section 95107(a) of the modified MRR, ARB must consider intent or its absence when seeking any penalty amount.

B-2. Further Specify and Identify Executive Orders

Comment: Section 95104 (e and f) of the regulation refers to Executive Orders (EOs) but there are no specific EOs identified. The sections (e and f) appear to generically reference EOs that might be issued or modified. Request additional specificity as to the EOs the ARB is referencing so that the military can properly analyze the potential impacts on them. [OP 16.02 – DOD]

Response: This comment seems to pertain to section 95107(e)-(f), rather than section 95104(e)-(f). Within the context of the proposed GHG reporting regulation, Executive Orders only apply to the accreditation of verifiers and verification bodies (see section 95132(c)-(d)). These Executive Orders do not apply to reporters, and would have no direct impact on reporters in complying with the proposed regulation.

B-3. Variance Process for Late Reports

Comment: There is no mention in the regulation's enforcement sections of the basic health and safety code variance process. The complexities of military installations and stringent requirements of the federal contracting process mean reports could be delayed in some instances. [OP 16.01 – DOD]

Response: The variance process in the Health and Safety Code referenced by the commenter applies only to rules and regulations from local air districts or to variances from Health and Safety Code section 41701 (restricted discharges of air contaminant for period/periods aggregating more than 3 minutes in any one hour which is: (a) as dark or darker in shade as that designated as No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subdivision (a)). This section is inapplicable to the MRR.

B-4. Regulation May Be Costly for Non-Compliant Facilities

Comment: The regulation may be costly given the CARB's enforcement penalties for reporting "inaccurate information." [B 04.04 – CIP]

Response: Financial penalties are a common practice to help ensure program compliance. Any additional reporting costs can be avoided by reporting accurate information, as required by the regulation.

B-5. Concern About Exposure to Enforcement Actions

Comment: The staff report section on enforcement tells us: "Section 95107 makes clear what constitutes a violation of the proposed revised GHG reporting regulation. The revised provisions clarify the number of days, or portions thereof, of violations for failing to comply with the revised regulation. For instance, if an emissions data report is not submitted, is submitted late, or contains incomplete or inaccurate information, each day or portion thereof that the report is late will constitute a separate violation of the proposed regulation. The section also clarifies what is meant by "inaccurate." In this instance, "inaccurate" means that the information is not within the level of reproducibility of a test or measurement method required by the proposed regulation. These same violations would result if a verification body fails to submit a verification statement by the required deadline in the proposed regulation (see proposed revised section 95103(f)). Each day or portion thereof that the verification statement is late would constitute a separate violation of the proposed regulation. Furthermore, given that section 95103(f) requires the reporting entity to obtain the services of a verification body and that such services must be completed by the regulatory deadline, a late submitted verification statement could also lead to a violation by the reporting entity.

In addition, this section also clarifies that each failure to comply with the methods in the proposed regulation for measuring, collecting, recording, and preserving information needed for the calculation of emissions constitutes a separate violation of the proposed regulation. This violation has been included in the proposed revisions because it ensures that reporting entities will utilize the methods required by the regulation, which further ensures the stringency of calculations and resulting reported emissions data."

However, we do not see it so clearly and are concerned about the potential exposure to draconian enforcement actions over potential inaccuracies in complying with a half-finished, overly complex and sometimes convoluted set of requirements. Moreover, we are concerned that the violation and penalty structure as detailed in Section 95107 of the MRR could lead to a layering of penalties. In fact, we agree with the Western States Petroleum Association that "one piece of missing or incorrect data (out of potentially millions of pieces of data) could lead to potentially massive penalties. In other words, failure to measure, collect, record and preserve data could lead to a violation and penalty for "each ton, for each day" that the alleged failure occurred." [B 04.07 – CIP]

Response: ARB has modified the enforcement provisions of section 95107 to clarify that there are no per-day penalties for each under-reported ton, nor are

there per-day penalties for each failure to measure, collect, record, or preserve information in the manner required by the regulation. ARB has made these modifications to address the layering concern expressed by the commenter (as well as other commenters). ARB believes that the reporting requirements are clear that reporting entities have an obligation to report as required by the regulation, and failure to comply with those requirements could result in a violation of the regulation. However, in seeking to assess any penalty for one or more violations, ARB must consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b). As such, ARB believes it is unlikely that one piece of missing data would lead to excessive (or necessarily, any) penalties.

B-6. Layering of Penalties

Comment: We are concerned that the violation and penalty structure as detailed in Section 95107 of the MRR could lead to a layering of penalties such that one piece of missing or incorrect data (out of potentially millions of pieces of data) could lead to potentially massive penalties. In other words, failure to measure, collect, record and preserve data could lead to a violation and penalty for "each ton, for each day" that the alleged failure occurred. Further as noted in sub-sections (a), (b), (c) and (d) the same "failure" regardless of the reason or circumstance could be subject to penalties under the different sections potentially leading to tripling or quadrupling of penalties for the same alleged violation. As the mandatory reporting rule is tied to the proposed cap and trade rule, it is critical that the cap and trade rule also be addressed accordingly. We urge that the adopting resolution acknowledge that this multiplication of penalties, whether in the Cap and Trade Rule or in the Monitoring Recordkeeping and Reporting (MRR) Rule, is not the intent and that ARB is committed to addressing this issue in order to make the penalty structure fair and rational. [C&T 735 – WSPA]

Response: See Response to B-5. In regards to potential multiple penalties for a single reporting error (i.e. a penalty for reporting inaccurately, plus a penalty for each under-reported (and hence, inaccurate) ton), it is possible such circumstances might arise. ARB notes that many regulatory programs include such potential multiple violations stemming from one action. However, ARB must evaluate the circumstances included in modified section 95107(a), including the criteria in Health and Safety Code section 42403(b) before seeking any penalties. This evaluation would determine for which (if any) potential violations ARB would seek a penalty amount. Moreover, it is entirely possible that a report could include inaccuracies which are not reflected in the GHG emissions, such that penalties imposed for failing to report emitted tons of CO_2e are not directly linked to per-day violations for submitting an inaccurate, incomplete report. As such, ARB believes that the violation language in section 95107 provides the appropriate deterrence to certain types of behavior, while taking into account all relevant circumstances of each individual case. ARB has also removed former section 95107(b) such that a per-ton penalty is not also a per-day penalty.

In addition, ARB has modified the enforcement provisions in the cap-and-trade regulation in order to address the concern of overlapping penalties across both the MRR and the cap-and-trade regulation. As modified, violations for under-reported tons and failures to measure in the manner required by the MRR will be dealt with solely under the MRR enforcement provisions. In terms of the cap-and-trade regulation, once a covered entity reports its emissions under the MRR, those emissions are then verified, and the covered entity receives either a positive, qualified positive, or adverse emissions verification statement. In the event of either a positive or qualified positive verification statement, the entity's cap-and-trade compliance obligation is equal to one allowance for each ton emitted. If a covered entity receives an adverse verification statement under the MRR, ARB will calculate and assign the covered entity's emissions level pursuant to section 95131(c)(5), and that level will become the covered entity's cap-and-trade compliance obligation. In either instance, if the covered entity is found (either in the current year or in a later year) to have under-reported its emissions, the penalty for the under-reporting will be wholly contained in the MRR – without the possibility of overlapping cap-and-trade penalties. Failure to surrender sufficient compliance instruments on the other hand will be subject to the penalty contained in the cap-and-trade regulation.

B-7. Revise Enforcement to Align with U.S. EPA Requirements
Comment: Revise enforcement provisions to align with federal reporting requirements. [T 10.01 - CCEEB]

Response: ARB has attempted to harmonize the MRR reporting requirements as much as possible, and where appropriate, with the U.S. EPA Reporting Rule. However, ARB retains the authority to enforce the requirements of its regulations, including those provisions which differ from the U.S. EPA rule, and believes that the provisions of section 95107 as modified are necessary to ensure such enforcement.

B-8. Enforcement Language Inconsistent with U.S. EPA Regulation
Comment: Section 95107(d) of the ARB MRR states that "Each failure to measure, collect, record or preserve information needed for the calculation of emissions … constitutes a separate violation of this article." In effect, this language would require 100 percent of fuel data to be measured and recorded, and would not allow for the use of missing data procedures. Missing data procedures exist because it is not always possible to measure and record data, due to reasons such as equipment failure, maintenance, etc. See excerpts below from the Code of Federal Regulations, Title 40, Part 75 regarding Missing Data Substitution Procedures:

Subpart D—Missing Data Substitution Procedures
§ 75.30 General provisions.
(a) Except as provided in §75.34, the owner or operator shall provide substitute data for each affected unit using a continuous emission monitoring system

according to the missing data procedures in this subpart whenever the unit combusts any fuel and: (2) A valid, quality-assured hour of flow data (in scfh) has not been measured and recorded for an affected unit from a certified flow monitor, or by an approved alternative monitoring system under subpart E of this part; or Therefore, Section 95107(d) should be modified so that the use of the missing data procedures provided for in Section 95129 of the ARB MRR does not constitute a violation. In addition, Section 95107(d) should be harmonized with the enforcement language in section 98.8 of the EPA MRR.

EPA MRR
§ 98.8 What are the compliance and enforcement provisions of this part?
Any violation of any requirement of this part shall be a violation of the Clean Air Act, including section 114 (42 U.S.C. 7414). A violation includes but is not limited to failure to report GHG emissions, failure to collect data needed to calculate GHG emissions, failure to continuously monitor and test as required, failure to retain records needed to verify the amount of GHG emissions, and failure to calculate GHG emissions following the methodologies specified in this part. Each day of a violation constitutes a separate violation.

LADWP recommends the following revisions to Section 95107(d) to resolve the issue with use of missing data procedures and to harmonize the enforcement language with Section 98.8 of the EPA MRR.

> Each failure to ~~measure,~~ collect data needed to calculate emissions, monitor and test as required, retain records needed to verify emissions, or to calculate emissions following the methodologies specified in this article~~, record or preserve information needed for the calculation of emissions as required by this article or that this article otherwise requires be measured, collected, recorded or preserved~~ constitutes a separate violation of this article. [OP 38.03 – LADWP]

Response: See Response to B-7. ARB also notes that it has modified section 95107(d) such that "each failure" relates to "in the manner" required by the article, corresponding to the commenter's suggested language ("following the methodologies specified in this article") and addressing the commenter's concerns. In response to the commenter's concerns about missing data provisions, ARB believes that it has clarified that use of the missing data provisions does not relieve the reporting entity from complying with other sections of the regulation. As such, ARB does not agree with the commenter's suggestion of developing a blanket exclusion from violations or penalties when a reporting entity uses the missing data substitution provisions. Those provisions are provided to prescribe how reporting entities must fill in any missing data gaps in the event they are unable (for whatever reason) to meet the other requirements of the regulation; the provisions are not an optional alternative that reporting entities are free to elect. However, aside from an approved interim fuel analytic data collection procedure during equipment breakdowns pursuant to

section 95129(h), the missing data provisions are not intended to excuse any failure of reporting under the other requirements of the regulation. As mentioned above, ARB believes the criteria listed in section 95107(a) are sufficiently broad to allow it discretion in whether to seek penalties or not.

B-9. Overlap Between Reporting and Cap-and-Trade Enforcement Provisions
Comment: ARB needs to coordinate the enforcement language among the AB32 regulations to avoid overlapping enforcement provisions that may result in double violations and penalties under different sections of the rules for the same error or deficiency. For example, a single reporting error (under-reporting of emissions) would be subject to penalties under 3 different enforcement provisions:

- Per-ton penalties under Section 95107(c) of the MRR for each metric ton of CO_2e emitted but not reported.
- Per-day penalties under Section 95107(a) of the MRR for each day the report was incomplete or inaccurate.
- Per-ton, per-day penalties under the cap-and-trade regulation.

Section 95107(c) of the MRR overlaps with both Section 95107(a) of the MRR as well as the cap-and-trade regulation, creating a double compliance burden:

- Assessing penalties under MRR Section 95107(c) for emissions not reported overlaps with per-ton penalties under the cap-and-trade regulation if compliance instruments are not surrendered for the same emissions (emissions not reported ~ compliance instruments not surrendered).
- Assessing penalties under MRR Section 95107(c) for emissions not reported overlaps with per-day penalties for submitting an incomplete report under MRR Section 95107(a) (emissions not reported ~ incomplete report)

ARB should review and streamline the enforcement and penalty provisions in the AB32 regulations, and eliminate overlapping enforcement provisions that result in the imposition of multiple violations for the same deficiency. Since Section 95107(c) overlaps with two other enforcement provisions, it should be deleted to eliminate the double compliance burden.

> ~~Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation.~~ [OP 38.04 – LADWP]

Response: For the reasons expressed in Response to B-6, ARB believes it has addressed the concerns with overlapping enforcement provisions between the MRR and the cap-and-trade regulation. In addition, ARB disagrees with the commenter that section 95107(c) should be deleted. As explained in the Staff Report, a metric ton was selected as the essential unit of violation for unreported emissions because metric tons are the basic unit both for reporting emissions and for allocations under the proposed cap-and-trade regulation. By using metric tons, the number of violations will remain proportional to emissions, which is in

keeping with the statute's overall intent to reduce emissions. Existing enforcement statutes direct ARB to consider, when determining administrative penalties, the "extent of harm caused by the violation," and the "nature and persistence of the violation." (Health & Safety Code sections 42410(f) and 42403.5(b)(1)(2)). Section 95107(c) makes specific that the "extent of harm" and the "nature" of a failure to report will be analyzed, for penalty purposes, in terms of metric tons.

B-10. Clarify How ARB Will Exercise Its Enforcement Authority

Comment: Section 95107 strengthens ARB's enforcement authority and establishes a strict liability standard. Consequently, penalties could be imposed even in the absence of any knowing violation or intent to deceive. PG&E appreciates that stringent enforcement provisions are necessary to support the cap-and-trade program. However, PG&E believes that ARB should revise this section to ensure that penalties for violations are commensurate with the scope and severity of the violation and potential environmental harm. Subsection (a) provides that each day or portion thereof that a report is submitted late, incomplete, or inaccurate constitutes a separate violation. Similarly, subsection (b) provides that any other violation of the reporting regulations also counts as a separate violation for each day or portion thereof. Subsection (c) provides that each metric ton of CO_2e emitted but not reported constitutes a separate violation, and subsection (d) provides that each failure to measure, collect, record, or preserve information as required constitutes a separate violation. Taken together, these provisions can result in multiple violations for a single error that could, in turn, lead to huge penalties far out of proportion to any actual harm.
Due to the new strict liability standard, an entity that is making a good faith effort to comply with the reporting requirements could nonetheless be exposed to significant penalties. Moreover, since the cap-and-trade regulations also contain enforcement provisions and the possibility of large penalties, entities could be exposed to separate penalties resulting from a single error.

In PG&E's view, the proposed mandatory reporting regulations should include violation provisions and penalty guidelines that ensure that penalties are appropriate for the nature of the violation and the resulting harm. In its Initial Statement of Reasons ("ISOR"), ARB staff notes that the penalty would ultimately be based on the factors set forth in Health and Safety Code section 42403, which includes the extent of harm, the nature and persistence of the violation, the length of time over which the violation occurs, the frequency of past violations, the record of maintenance, the entity's actions to mitigate the violation, and the financial burden to the entity. Because enforcement of AB 32 is a critical component of overall program design, PG&E recommends that section 95107 of the regulations be modified to explicitly cross-reference section 42403 of the Health and Safety Code so that entities that are subject to the mandatory reporting regulations will have clear regulatory direction on how ARB's enforcement authority will be exercised. [OP 7.022 – PGE]

Response: See Response to B-6 regarding layering of penalties. In addition, ARB notes that it has modified section 95107 such that subsection (a) referred to by commenters is now shown as subsection (b). As a general matter, section 95107 describes potential violations of the requirements of the GHG Reporting Regulation. It does not impose automatic penalties. ARB agrees with the commenter's suggestion to explicitly cross-reference section 42403 of the Health and Safety Code, and has done so in modified subsection (a). Subsection (a), as modified, indicates that ARB will look to the relevant circumstances of a potential violation, including the size and complexity of the facility, any pattern of violation, and the other criteria in Health and Safety Code section 42403(b) (extent of harm caused by the violation, nature and persistence of the violation, length of time over which the violation occurs, frequency of past violations, record of maintenance, unproven or innovative nature of control equipment, any mitigating actions taken, and the financial burden to the defendant). As such, the nature of the violation would necessarily factor into ARB's penalty analysis.

ARB has removed the provision stating that "each day or portion thereof in which any other violation of this article occurs is a separate offense" (former subsection (b)). In addition, as explained in Response to B-6, ARB has modified the enforcement provisions of the cap-and-trade regulation to address the concern expressed by the commenter of potential violations under two regulations for the same reporting error.

B-11. Penalties Imposed Under Reporting Regulation Using Per-Day Multipliers
Comment: Penalties would be imposed under both the cap-and-trade regulation and the reporting regulation for the same infraction. Both impose penalties on a per-day per-ton basis. Per-day penalties are appropriate under the reporting regulation, but without a per-ton multiplier. Per-ton penalties are appropriate under the cap and trade regulation, but without a per-day multiplier. Previously the Board directed staff to reexamine per-day multipliers relevant to the previous RES regulation. Urge the Board to do the same with the cap-and-trade and reporting regulations. [T 11.05 - SCPPA]

Response: See Response to B-6. As noted in Response to B-10, ARB has removed former subsection (b), which stated "each day or portion thereof in which any other violation of this article occurs is a separate offense." As such, there will no longer be the potential for a per day penalty on a per-ton violation. Moreover, ARB disagrees with the commenter's assertion that including a per-ton penalty for under-reported tons with a separate per day penalties for inaccurate reporting is inappropriate. As explained in the Staff Report, ARB believes the per-ton violation is a necessary deterrent because under-reporting of emissions poses potential significant economic benefits to companies by reducing the amount of allowances they would have to buy under a cap-and-trade system. Under-reporting also threatens the accuracy and integrity of the emissions cap. To discourage this type of behavior, the penalty must take away the economic benefit gained by under-reporting. Because reporting entities have ultimate

control on the quality of the information they report pursuant to the reporting regulation, and the information reported pursuant to the MRR will form the basis of the compliance obligations surrendered in the cap-and-trade regulation, the deterrent effect of maintaining the provision stating that "each metric ton of CO_2e emitted but not reported as required by this article is a separate violation" in the MRR is necessary to accomplish the goals of both the MRR and the cap-and-trade regulation. Defining a violation based on a per-unit value is consistent with other ARB regulations that define penalties proportional to the conduct, with the statute's intent, and is authorized by Health and Safety Code section 38580(b)(3).

B-12. Errors Corrected During Verification Should Not Be Subject to Penalties
Comment: Errors corrected during verification should not be subject to penalties. There should be a materiality threshold so that minor errors are not subject to penalties. [T 6.01 – LADWP]

Response: The underlying responsibility placed on reporting entities by the requirements of the GHG Reporting Regulation is to report as required by the regulation, and to have that report verified. While reporting entities are required to make corrections as appropriate during the verification process, they are still required to report accurately as of the initial reporting deadline. Therefore, ARB does not believe that the verification provisions, including those for material misstatement, should be automatically tied to potential enforcement actions. ARB also notes that section 95107 describes potential violations of the requirements of the GHG Reporting Regulation. It does not impose automatic penalties. Section 95107(a), as modified, indicates that ARB will look to the relevant circumstances of a potential violation, including the size and complexity of the facility, any pattern of violation, and the other criteria in Health and Safety Code section 42403(b) (extent of harm caused by the violation, nature and persistence of the violation, length of time over which the violation occurs, frequency of past violations, record of maintenance, unproven or innovative nature of control equipment, any mitigating actions taken, and the financial burden to the defendant). As such, in the event ARB chose to pursue an enforcement action, the nature of the violation (i.e. a minor reporting error), would necessarily factor into ARB's penalty analysis. ARB believes that any numerical materiality threshold would weaken the regulation by excusing incomplete reporting.

B-13. Violations for Data Corrected Using Regulation Requirements
Comment: The proposed enforcement language would impose violations for "Each failure to measure, collect, record or preserve information...", even though section 95129 of the ARB MRR allows the use of missing data procedures when equipment fails to measure or record data. [OP 38.02 – LADWP]

Response: See Response to B-8.

B-14. Proposed Language Could Impose Violations For Errors Prior to Verification
Comment: As currently drafted, section 95107(a) would impose daily penalties for incomplete or inaccurate reports starting the first day after the reporting deadline. However, imperfect reports are inevitable, particularly in the early years of reporting. ARB should make allowance for circumstances beyond the reporter's control that may result in a report that is not perfect, despite a reporter's best efforts to prepare and submit a complete and accurate report by the reporting deadline. For example,

a. If the reporter has trouble uploading the transactions data into the GHG Reporting Tool, they may not be able to submit and certify the submission by the reporting deadline.
b. If renewable energy purchases are not reconciled by the reporting deadline, the reporter may need to report "preliminary" data, then enter the final numbers as a correction during the verification process.
c. Data entry errors (i.e., forgetting to convert fuel usage into the correct units)

Given the fact that the reporting process includes an intermediate verification step to ensure the report is complete and accurate and to identify and correct any errors, it seems reasonable that errors found and corrected during the verification process should not be subject to enforcement and penalties. Any changes made to the report during the verification process are fully documented. Since compliance obligations will be assessed only after the emissions have been verified, it is reasonable that minor reporting errors or non-conformances that are not material misstatements and are corrected during the verification process according to section 95131(b)(10) should not be treated as violations. [OP 38.01c – LADWP]

Response: See Response to B-12.

B-15. Errors Corrected During Verification Should Not Be Subject to Penalties
Comment: With regards to enforcement, errors that are corrected during the verification process should not be subject to penalties, and there should be a materiality threshold so that minor errors are not subject to penalties. [C&T T 06 – LADWP]

Response: See Response to B-12.

B-16. Errors Corrected During Verification Should Not Be Violations
Comment: Minor errors in a report that are identified and corrected during verification should not be considered violations. Section 95107(a) would impose daily penalties for inaccurate or incomplete reports. It is inevitable, however, particularly in the early years of reporting, that an entity's reports will contain various errors that are identified and corrected during the verification process. Egregious or repeated errors and deliberate misstatements should be penalized, but minor errors that are identified during verification such as accidental

calculation mistakes, errors arising from the late settlement of electricity transactions, and errors relating to the interpretation of unclear provisions should not be subject to penalties. Such errors would not lead to an under-surrender of compliance instruments under the cap-and-trade regulation because compliance obligations are calculated based on verified emissions rather than reported emissions. Errors or nonconformances in a report that do not lead to material misstatements as defined in section 95102(a)(194) and that are corrected as provided for in section 95131(b)(10) should not be considered violations. Furthermore, there should be no penalties for reports that are submitted late due to technical issues with the reporting tool or for missing data where the missing data substitution procedures are followed. [OP 6.08 – SCPPA]

Response: See Response to B-12. In relation to missing data provisions, see Response to B-8. Regarding the commenter's concern over technical issues with the reporting tool, ARB believes it has addressed those concerns by modifying the regulatory language in section 95104(e) to include a provision stating that reporting entities are not responsible for reporting data required under the regulation that is not specified for reporting in the reporting tool. This means that there will not be a violation of the regulation if an entity is unable to report information that the regulation requires be reported because that information is not specified for reporting in the reporting tool.

B-17. Overlapping Enforcement Provisions Should be Eliminated
Comment: Overlapping enforcement provisions should be eliminated to avoid double or triple penalties for the same deficiency [T 6.02 – LADWP]

Response: See Response to B-6.

B-18. Daily Penalties Only After Inaccuracy is Identified
Comment: Daily penalties for inaccuracy should only be imposed after the inaccuracy is identified. If a report is found to be inaccurate, daily penalties under section 95107(a) should only be imposed for the days between the date when the inaccuracy is identified and the date when the corrected report is re-submitted. It would not be appropriate to impose daily penalties starting from the date the report was first submitted if the reporting entity submitted its report on time in good faith believing it to be correct and complete. [OP 6.09 – SCPPA]

Response: As mentioned in Response to B-12, the underlying obligation on reporting entities is to report accurately, pursuant to the requirements of the regulation. This obligation includes submittal of complete, timely, and accurate information by the applicable reporting deadline. ARB believes that it is important to maintain the enforcement provisions of section 95107 consistent with the reporting deadlines, to ensure sufficient incentive to report accurately by the reporting deadline. However, ARB also notes that as explained in Response to B-10, should ARB choose to seek penalties for any violation, it will consider all

relevant circumstances such as the existence or absence of any pattern of inaccurate reporting or other violations.

B-19. Current Language Could Lead to Massive Penalties

Comment: WSPA understands and agrees that ARB must issue appropriate enforcement provisions to ensure that operators comply with the reporting requirements and to address situations of non-compliance or other issues such as the under reporting of emissions. However, WSPA believes the proposed enforcement provisions in the regulation are not only unnecessarily duplicative but, as currently structured, could unfairly impose penalties ranging into the hundreds of millions of dollars for administrative errors. As written in sub-sections (a), (b), (c) and (d) the failure to measure, collect, record and preserve data, regardless of the reason or circumstance, could be subject to penalties under the different sections, which potentially could lead to penalties being multiplied 3 to 4 times over for the same error. This is particularly concerning because ARB changed the enforcement provisions from an "intent to deceive" to a "strict liability" standard. Given that the required reports contain literally tens of millions of data points and information, there is reason to expect errors that are wholly unintentional. However, the enforcement provisions as written could result in a massive number of penalties. At a minimum, ARB should revise sub-sections (a), (b), (c) and (d) as follows:

i. Eliminate the word "each" in Section (d), and then combine Sections (a) and (d).

ii. Clarify what is defined as inaccurate in Section (a) (see our recommendation for a "notice to comply" penalty scheme below).

iii. If Sections (a) and (d) are combined as suggested above, then Section (b) is no longer necessary as the combined (a) and (d) address the number of days as a separate violation.

iv. Section (c) should be eliminated because it does not reflect ARB's intent. As it is currently written, a facility could be subject to penalties despite having received a positive verification.

v. Eliminate Section (e) because Section (f) provides sufficient cover to the executive order concerns. [OP 31.01a – WSPA]

Response: See Responses to B-6, B-10, B-11, and B-12. In addition, ARB does not agree that the enforcement provisions as modified are duplicative. It is necessary to maintain a distinct enforcement provision for timely, accurate, and complete reporting (modified section 95107(b) (formerly subsection (a)), in addition to a separate provision for each failure to measure, collect, record or preserve information in the manner required by the regulation (section 95107(d). The measurement, collection, recording, and preservation of information are separate requirements from timely, complete, and accurate submittal. In addition, the commenter's suggestion of eliminating the word "each" in section 95107(d) would reduce the appropriate incentive to follow each requirement of the regulation by decreasing the deterrent effect of this provision. ARB has removed former subsection (b), as requested by the commenter. For the

reasons in Response to B-11, ARB has not removed section 95107(c). Finally, ARB believes it is necessary to maintain both sections 95107(e) and (f) to provide clarity in what constitutes a violation and a possible sanction for a violation. ARB notes that under the MRR, the only Executive Orders are those which relate solely to verifier and verification body accreditation. See Response to B-2.

B-20. Take Efforts To Comply Into Account

Comment: ARB should also revise Section 95107 so that the enforcement provisions take into account an operator's demonstrated efforts to comply with the reporting requirements. Improved clarity in enforcement would allow ARB to make a distinction between legitimate efforts to comply and those that may fall short. For example, submittal of reports on-time and demonstrated compliance with the required 5% accuracy requirement should be considered as evidence of intent NOT to deceive. Conversely, operators who are recalcitrant by failing to meet the reporting requirements or by failing to submit the required data and information on time might be appropriately penalized. [OP 31.01b – WSPA]

Response: ARB has added an explicit reference to Health and Safety Code section 42403(b), along with the following statement: "In seeking any penalty amount, ARB shall consider all relevant circumstances, including any pattern of violation, the size and complexity of the reporting entity's operations, and the other criteria in Health and Safety Code section 42403(b)." Those other criteria include: extent of harm caused by the violation, nature and persistence of the violation, length of time over which the violation occurs, frequency of past violations, record of maintenance, unproven or innovative nature of control equipment, any mitigating actions taken, and the financial burden to the defendant. ARB believes this additional modification addresses the commenter's concern, improves the clarity of the enforcement provisions of section 95107, and lays out the circumstances ARB must consider should it chose to seek any penalty for a violation of the requirements of the regulation.

B-21. Develop Guidance Document To Clarify Enforcement And Compliance

Comment: Develop a guidance document to clarify the enforcement and compliance process. Clarifying the issues in the manner described above will buttress earnest efforts by operators as they comply with the reporting and verification requirements. Such clarity will also ensure that facilities are treated fairly, and also facilitate ARB's options for enforcement against operators that fail to comply with the regulations. WSPA recommends that ARB undertake development of a notice to comply/minor violation penalty guidance along the lines developed by the air districts. A prime example is the BAAQMD's "notice to comply" guidelines – found at: http://www.baaqmd.gov/~/media/Files/Compliance%20and%20Enforcement/notice_to_comply_revised_6_19_07.ashx. Such guidance would allow ARB to define and address the typical recordkeeping errors that do not adversely impact the environment or result in excess emissions, nor violations in air quality standards.

Guidance would, at the same time, give regulated entities the ability to correct inadvertent errors so as not to result in enforcement action. [OP 31.01c – WSPA]

Response: Although it was not developed for purposes of implementing AB 32, ARB has published on its website a background and policy document that describes the enforcement process generally. (See http://www.arb.ca.gov/enf/sb1402/policy.pdf). ARB believes that the modifications made to section 95107 clarify what would constitute a violation of the MRR, as well as how ARB will proceed in seeking any penalty amount, should it choose to pursue an enforcement action. ARB must already assess the relevant circumstances of each individual case, including those criteria in Health and Safety Code section 42403(b), and does not agree that a notice to comply guidance as suggested by the commenter is appropriate for the MRR. "Notice-to-comply" programs do not promote full compliance with the law. These programs send the wrong signal – that no one need comply with the law until caught in violation. Such programs unfairly disadvantage businesses that comply with the regulatory requirements before an enforcement action begins. Finally, notice-to-comply programs also require much greater enforcement resources than ARB has at its disposal.

B-22. Dispute Resolution Process

Comment: Develop a "dispute resolution" process similar to the process available to the local air districts. WSPA reiterates our previous recommendation to develop a dispute resolution process that would provide ARB and facilities faced with compliance obligations with the ability to resolve potential enforcement issues in a fair manner. [OP 31.01d – WSPA]

Response: ARB does not believe the "dispute resolution" or "variance" process used by the local air districts is necessary for the MRR and believes it could disrupt the market features of the cap-and-trade regulation, which relies on the emissions data reports from the MRR. Moreover, unlike the future emissions addressed by local air district variance processes, the emissions at issue in the MRR have already occurred and been reported to ARB. As such, no "variance" is required, and as such the formal variance process used by the air districts would be inappropriate for the MRR. In addition, instead of a formal variance process, the MRR includes a process by which a facility may petition for an interim data collection method under certain circumstances that would result in loss of data for unforeseen reasons (see section 95129(h)). The MRR also contains a petition process for when a reporting entity and its verifier do not agree on the quality of the emissions data report (see section 95131(c)(4)).

B-23. Overlapping Penalty Provisions Are Excessive

Comment: Overlapping penalty provisions are excessive. Section 95107(c) (p. 50) would impose a separate violation for each metric ton of CO_2e emissions emitted but not reported on top of the separate daily violations for each day a report is late, incomplete, or inaccurate under section 95107(a). These provisions

should be reconsidered, particularly in light of the per-day, per-ton penalties that may be applied under the cap-and-trade regulation. Without modification, these overlapping penalty provisions would constitute an excessive potential liability burden. Investors look at total potential liabilities when determining whether to invest in a project or purchase bonds. Inordinately high and uncertain potential penalties may have an adverse effect on the ability of entities subject to the AB32 regulations to raise capital for emission reduction projects. It is inappropriate to impose per-ton penalties for unreported emissions at the same time as imposing per-day penalties for an inaccurate report under the Revised MRR and while imposing per-ton, per-day penalties for excess emissions under the cap-and-trade regulation. This would constitute multiple penalties for a single reporting error. It would be appropriate to impose per-day penalties under the Revised MRR to ensure that reports and verification statements are provided promptly and to impose per-ton penalties under the cap-and-trade regulation to ensure that sufficient compliance instruments are surrendered to cover emissions. The ARB recognized the issues with imposing per-day penalties in addition to penalties for each missing instrument for the Renewable Electricity Regulation and is revising the enforcement language to rectify the excessive penalties. The same should be done here. Section 95107(c) should be deleted. [OP 06.10 – SCPPA]

Response: See Responses to B-6 and B-11.

B-24. Enforcement Provisions Need Clarification

Comment: "Level of reproducibility of a test or measurement method" is unclear. Section 95107(a) (p. 50) on "enforcement" refers to information that is inaccurate "within the level of reproducibility of a test or measurement method." It is unclear what this phrase will mean in practice, and the ISOR provides no explanation. A reasonable margin of error must be allowed insofar as the reproduction of a test will never give exactly the same results as the first test. It would be preferable to use a defined term such as "material misstatement" as defined in section 95102(a)(194) rather than "within the level of reproducibility of a test or measurement method" for determining whether a submitted report is inaccurate. [OP 6.07 – SCPPA]

Response: ARB agrees with the commenter that "level of reproducibility of a test or measurement method" is unclear and has deleted this phrase from the regulation. However, ARB does not agree that the term "inaccurate" should be linked to the verification term, "material misstatement." ARB notes that it has utilized the phrase "incomplete or inaccurate" in other ARB regulations (see for example Methane Emissions from Municipal Solid Waste Landfills (title 17, California Code of Regulations (CCR), section 95460 et seq.), Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear (title 17, California Code of Regulations (CCR) section 95350 et seq.), Management of High Global Warming Potential Refrigerants for Stationary Sources (title 17, CCR, section 95380 et seq.).

B-25. Reports should be considered accurate if they do not contain a material misstatement

Comment: It appears the language added to revised section 95107(a) seeks to establish a standard for determining whether a report contains information that is inaccurate. However, the proposed terminology "…within the level of reproducibility of a test or measurement method…" is not defined in the MRR nor explained in the Initial Statement of Reasons, and the ARB reporting staff was unable to provide clarification of how this would be applied in practice. Rather than rely on uncertain language that is subject to interpretation, a better approach would be to determine the accuracy of a report based on a standard that is well defined and can be applied to all types of reports. A report should be considered accurate if it does not contain a "material misstatement" as defined in section 95102(a)(194). This would ensure the report is at least 95% accurate, which is the accuracy requirement that must be met in order to receive a positive verification statement. Minor errors or non-conformances in a report that do not constitute a material misstatement should not be considered violations. LADWP recommends that "material misstatement" should be the standard for determining whether or not a report is accurate. This section should be revised as follows:

> Each day or portion thereof that any report required by this article remains unsubmitted, is submitted late, ~~or~~ contains material misstatements, or fails to disclose material information ~~information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method~~ is a separate violation. For purposes of this section, "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article. [OP 38.01b – LADWP]

Response: See Response to B-12.

B-26. Enforcement Provisions Need Additional Specificity

Comment: Enforcement provisions should very specifically relate to regulatory requirements. In contrast, the language in Section 95107(d) connotes a more subjective determination on the part of the ARB. More specifically the word "needed" lacks specificity as related to the requirements of the regulation. Hence the language "failure to measure, collect, record or preserve information needed" should be amended to be succinct enough to relate to those requirements and replaced with language that more closely refers to the regulatory requirements. It is recommended the language be amended as follows to help the regulated community understand what data is required to ensure compliance with the regulation: *(d) Each failure to measure, collect, record or preserve information ~~needed~~* ***as required by this article*** *for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved constitutes a separate violation of this article.*

As well, given the volume of materials and emissions associated with this regulation, it is recommended that the above language contain an option to not, at the discretion of the enforcement agency, represent each failure as a separate violation. It is recommended that the word “may’ be inserted to preserve that discretion. The following additional language is recommend added to the above section: *((d) Each failure to measure, collect, record or preserve information ~~needed~~* ***as required by this article*** *for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved* ***may*** *constitute~~s~~ a separate violation of this article.* [OP 20.05 – SEU]

Response: ARB agrees with the commenter’s recommendation of removing the word “needed” to improve the clarity of the provision, and has deleted that word. However, ARB disagrees with the commenter’s further suggestion of adding the word “may” as to what constitutes (or, “may” constitute) a violation, because such an addition would render the provision unclear. ARB will retain the discretion whether to pursue an enforcement action for violations of the regulation, but believes that the actual violations must be clearly described.

B-27. Time Should be Provided to Resolve Errors Prior To Enforcement

Comment: The Utilities recommend that when a reporting entity becomes aware of or is notified by CARB that the entity's report is not considered to be complete or contains an error, a cure period should be provided to allow the reporting party to resolve these issues, through interaction with the appropriate staff or submittal or corrections. This would be equivalent to the 30 day resolution period allowed under section 95857(c)(4) in the proposed regulation to implement the California Cap and trade program- the Executive Officer has determined that a covered entity has excess emissions they are given 30 days to surrender the required allowances for these excess emissions. Utilities recommend that 95107(b) and (c) be stricken from the regulation as these provisions are duplicative.

(a) Each day or portion thereof that any report required by this article remains unsubmitted, or is submitted late~~, or contains information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method~~ is a separate violation. For purposes of this section, “report” means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article.

(b) Each day that information contained within any report required by this Article remains incomplete or inaccurate within the level of reproducibility of a test or measurement method more than 30 days after the reporting party becomes aware of such error is a separate violation. ~~Except as otherwise provided in this section, each day or portion thereof in which any other violation of this article occurs is a separate offense.~~

~~(c) Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation~~.

(~~d~~c) Each failure to measure, collect, record or preserve information needed for the calculation of emissions as required by this article or that this article

otherwise requires be measured, collected, recorded or preserved constitutes a separate violation of this article.
(~~e~~d) The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.
(f~~e~~) The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.
(~~f~~f) Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining whether to assess a penalty and any amount assessed, all relevant circumstances shall be considered.
(~~h~~g) Any violation of this article may be enjoined pursuant to Health and Safety Code section 41513. [OP 29.02 – RMTUD]

Response: The commenter has proposed modifications to former subsection 95107(a) (now subsection 95107(b)) such as deleting the phrase "or contains information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method." As mentioned in Response to B-24, ARB has removed the phrase "within the level of reproducibility of a test or measurement method." However, the regulation's reporting provisions create an obligation of complete and accurate reporting. As such, ARB disagrees with the commenter's suggested deletion of those terms from this provision. See also Response to B-12.

In response to commenter's suggested 30-day cure period, ARB notes that the timeline for the reported, and then verified, emissions data to be finalized and used for the cap-and-trade regulation is clearly set forth in the MRR. ARB believes that allowing a 30-day cure period would significantly disrupt this timeline, potentially affecting reporting entities' ability to successfully engage in their cap-and-trade obligations. Moreover, the modifications made to section 95857 of the cap-and-trade regulation were designed in part to alleviate potential overlapping penalties across the two regulations and relate solely to the untimely surrender of compliance instruments.

The commenter also proposes additional language for former subsection 95107(g) (now subsection 95107(a)). ARB has made the requested change, and included the phrase "In seeking any penalty amount, ARB shall consider all relevant circumstances, including any pattern of violation, the size and complexity of the reporting entity's operations, and the other criteria in Health and Safety Code section 42403(b)."

Finally, ARB has removed former subsection (b) which the commenter referred to as too vague. However, as mentioned in Response to B-11, ARB believes that the per-ton violation for under-reported emissions in subsection (c) is necessary because under-reporting of emissions confers per-ton economic benefits to companies by reducing the amount of allowances they would have to buy under a cap-and-trade system.

§95108 Severability

No comments were received on section 95108.

§95109 Standardized Methods

No comments were received on section 95109.

C. Subarticle 2. Cement Production – §95110

§95110 Cement Production

No comments were received on section 95110.

D. Subarticle 2. Electric Power Entities – §95111

§95111. Electric Power Entities

D-1. Statewide GHG Emissions, Energy Exchanges, and Qualified Exports Adjustment

Comment: Electricity imports and exports under exchange agreements should be reported as linked transactions. Section 95111(a) requires energy exchanges involving the swap of electricity with an out-of-state counterparty to be reported as a separate import and export with nothing to indicate the import and export are related. Reporting energy exchanges in this manner will result in a double compliance burden because the California electric power entity will bear the emissions liability (direct or indirect) for both the imported electricity as well as the power generated in-state and exported. To avoid this double liability, energy exchanges should instead be reported as linked transactions, and the liability of the California electric power entity should be limited to the emissions associated with the imported power that exceed the emissions associated with the exported power.

SCPPA members are involved in a variety of economic exchange arrangements with counterparties that are, in many instances, located outside of California. Under these exchange arrangements, the exchange counterparty delivers electricity to a SCPPA member when the counterparty's marginal cost of electricity generation is lower than the SCPPA member's marginal cost of generation. The SCPPA member returns electricity to the counterparty at another time when the SCPPA member's cost of generation is less than the counterparty's cost of generation.

An exchange arrangement permits each electric power entity to maximize the efficient use of generating resources by generating electricity non-coincidentally with demand in its service territory instead of generating coincidentally with demand. Even though the timing of generation is changed so that generation occurs at a time that is non-coincidental with demand, each electric power entity still produces only one kilowatt hour of electricity to meet one kilowatt hour of demand in a typical exchange situation.

The amount of electricity that is consumed by the SCPPA member's customers and the counterparty's customers and the associated emissions are no different compared to a situation where no energy exchange occurs. The benefit of the energy exchange is that it reduces the net cost of serving the customers. The result is a more efficient use of generation resources and a socially beneficial reduction in the overall cost of serving consumers' demand for electricity.

Section 95111(a) in the Revised MRR would tend to discourage energy exchanges with out-of-state counterparties, as they would result in a [direct or indirect] compliance obligation on the California electric power entity for both the imported and exported power. If an electric power entity meets a kilowatt hour of its local demand using its own local generation, then the compliance obligation would be imposed only on the emissions associated with generating one kilowatt hour of electricity. However, if an electric power entity enters into an exchange arrangement with an out-of-state counterparty, the electric power entity would have two compliance obligations: one when electricity is imported into California and another when electricity is generated in California to return the energy to the out-of-state party.

The double compliance obligation would diminish the economic benefits of exchanging energy with out-of-state counterparties and unfairly penalize the California electric power entities and their ratepayers for realizing the efficiencies that can be gained from entering into exchange agreements. Given the societal benefits of economic exchange arrangements, it would be good public policy for the ARB to facilitate rather than discourage such arrangements. To that end, the Revised MRR should be amended to provide that energy exchanges with an out-of-state counterparty may be reported as linked import and export transactions. The emissions from the imported power should carry a cap and trade compliance obligation only to the extent those emissions exceed the emissions from the power generated in-state and exported. This will avoid a double emissions liability under the cap-and-trade regulation. Section 95111(a)(8) should be revised as follows:

"Exchange Agreements. The electric power entity must report delivered electricity under power exchange agreements as linked transactions rather than as separate imports and exports. Emissions from the imported electricity and the exported electricity are to be calculated as provided in section 95111(b). The emissions from electricity imported under an exchange agreement will form part

of the reporting entity's compliance obligation under the cap-and-trade regulation only to the extent to which those emissions exceed the emissions from the electricity exported under the exchange agreement. [OP 06.13-SCPPA]

Response: Economic exchanges may be simultaneous, within the hour, or non-simultaneous, such as seasonal exchanges. Simultaneous exchanges are accommodated via the provision for qualified exports adjustment to covered emissions, subsection 95111(b)(5), as a limited means to prevent leakage. Non-simultaneous exchanges cannot be netted, since that would violate the requirements of AB 32. Pursuant to AB 32 (specifically, Health and Safety Code section 38505(m)), statewide GHG emissions include both emissions from electricity generation facilities located in California and emissions from electricity that is imported and consumed in California. The direction given in AB 32 to account for all electricity provides equal incentive to reduce the carbon intensity of electricity generated in California whether it is provided for export or for consumption in-state.

California retail providers must decide when it is more economical to operate in-state generation compared to importing electricity to serve their customers. In the case where a California electric power entity exchanges power seasonally with Bonneville Power Administration (BPA), the cost will be relatively low since the imported power from BPA's system is primarily hydroelectricity and has a low emission factor. See section 95111(b)(3). The extent to which a California entity can pass some of the carbon cost from in-state generation through to BPA or any other power purchaser will depend on the relative cost of the other sources available to that purchaser. No evidence has been provided to evaluate whether this would be a significant source of leakage. As such, ARB declines to make the requested modification.

D-2. Qualified Exports and Simultaneous Exchanges

Comment: Stakeholders commented that simultaneous and seasonal exports that are part of exchange agreements should not carry a compliance obligation and should not be reported as imported electricity.

"Electricity wheeled through California" should include simultaneous exchanges. Section 95102(a)(104) (p. 18)of the Revised MRR defines "electricity wheeled through California." This definition should be clarified to include transactions where electricity is imported into California and simultaneously exchanged with electricity that is exported from California. Such simultaneous exchanges are functionally equivalent to wheeling electricity through California, and they do not result in an increase in the amount of electricity consumed in California. Thus, they should not be subject to a compliance obligation under the cap-and-trade regulation. The similarity between simultaneous exchanges and wheeled power was recognized in the AB 32 Cost of Implementation Fee Regulation ("Fee Regulation"), which defines "imported electricity" to exclude both simultaneous exchanges and wheeled power. Fee Regulation, Section 95202(a)(56). To be consistent with the Fee Regulation, section 95102(a)(104) of the Revised MRR

should be amended as follows: “Electricity wheeled through California” means electricity that is generated outside the state of California and delivered into California with final point of delivery outside California. It includes power transactions in which imported power is simultaneously exchanged for exported power. [OP 06.02—SCPPA]

Section 95102 Definitions: The definitions of “Electricity Wheeled through California” and “Imported Electricity” should be revised to include simultaneous energy exchanges to be consistent with the AB32 Fee Regulation. Data reported under the California Air Resources Board (ARB) “Regulation for the Mandatory Reporting of Greenhouse Gas Emissions” (MRR) needs to be collected in a manner that is consistent with its intended use. For example, data reported under the MRR will be used to assess AB32 fees under the AB32 Cost of Implementation Fee Regulation (Fee Regulation), and used to determine each entity’s compliance obligation under the proposed “California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (cap-and-trade regulation).

When developing the Fee Regulation, ARB staff recognized that simultaneous energy exchanges (power transactions in which imported power is simultaneously exchanged for exported power) were functionally equivalent to wheeling electricity through California. In order to avoid charging AB32 fees on electricity that merely passes through California, the Fee Regulation excluded both wheeled power and simultaneous energy exchanges from its definition of “Imported Electricity”. To be consistent with the Fee Regulation and to facilitate the calculation of AB32 fees, the MRR should be revised such that simultaneous energy exchanges are reported in the wheeled power category rather than as a separate import and export. [OP 38.10—LADWP]

Response: See Response to D-1 regarding statewide GHG emissions, energy exchanges, and qualified exports. Regarding the commenters’ concerns with the AB 32 Cost of Implementation Fee Regulation (fee regulation), ARB notes that the fee regulation does not prescribe GHG emissions reporting protocols for the MRR or set policy for the cap-and-trade program. Comments regarding the fee regulation are beyond the scope of the modifications made to the MRR. However, the Board is separately considering amendments to the fee regulation and as that process proceeds, ARB may identify additional reporting needs for consideration in the reporting tool.

D-3. Direct Delivery of Electricity and Verification of Specified and Unspecified Imports
Comment: It is not clear from the Regulation or the MRR if there are any minimum requirements for what constitutes a written contract. It is common practice for electricity trades in the WECC to have a trade confirmation issued which stipulates, among other terms, the duration of the transaction, load profile, point of delivery, quality of product and the price. Going forward, it can be expected that the market will adapt to include the name of the specific generator

on the trade confirmation if it is to the benefit of the parties (ie: low emitting) to include this information.

Will a trade confirmation for a daily (or potentially hourly) transaction that includes the name of the specific facility or unit qualify as a written contract under the Regulation and MRR? MSCG believes that, absent express statements in the rules to the contrary, the correct legal interpretation is that such a transaction meets the requirements for a written contract. That technical point aside, we strongly urge that the MRR clearly establish what constitutes a "written contract" for purposes of Specified Imports, in order to avoid future disputes or misunderstandings. [OP 15.03—MSCG]

Response: The definition of "written power contract" was clarified by including the italicized text: "Power contract" or "written power contract," as used for the purposes of documenting *specified versus unspecified sources* of imported and exported electricity, means a written document, *including associated verbal or electronic records if included as part of the written power contract*, arranging for the procurement of electricity. Power contracts may be, but are not limited to, power purchase agreements, *enabling agreements*, and tariff provisions, *without regard to duration*."

Due to the potential for errors, trade confirmations alone are not considered by ARB to be sufficient evidence of a facility-specific claim and are not considered a written power contract.

D-4. Electricity Importer, Transactions at Trading Hubs Outside California, and Bids into the CAISO Markets

Comment: There is a potential ambiguity with regard to whether certain transactions occur within or outside California, and thus constitute "imports" or "first deliveries" of power under the electricity importing rules. Specifically, there are trading hubs along the California border where the exact physical location is undefined or ambiguous. The most potentially problematic are "COB" and "NOB". Others that may raise questions include Mead and Palo Verde. At some point, the ARB will need to decide if transactions at these various "hubs" are in fact taking place "in California" for purposes of reporting and compliance. When those decisions are made, they need to be made part of the Regulation Order so parties have a reference source. One simple way would be to create a listing of all such hubs and indicate their "in-state" status for reporting purposes. Alternatively, it may be decided to make this list part of the MRR instead. In either case, the existence of the list should be cross-referenced in the other document. [C&T 498 MRR 5—MSCG]

Response: ARB has concluded that there is no ambiguity with regard to transmission path segments that cross into the state of California. Palo Verde (PV) is the nuclear plant switchyard in southwestern Arizona. This hub is a key selling point for wholesale sales into the Desert Southwest and southern California. An example of a physical path segment from Palo Verde into

California is PaloVerde500 to SP15. The PSE on this segment is the electricity importer. COB (California Oregon Border) is the location for deliveries at the Captain Jack and Malin substations in southern Oregon, immediately north of the California border. An example of a physical path segment from COB into California is Malin500 to NP15. The PSE on this path is the electricity importer. Mead is the delivery point for a number of transmission lines outside of Las Vegas. An example of a physical path segment from Mead into California is Mead230 to SP15. The PSE on this path is the electricity importer. NOB is a trading hub on the Nevada-Oregon border. An example of a physical path segment from NOB into California is NOB to Sylmar. The PSE on this segment is the electricity importer.

See also Response to P-3 regarding Use of North American Electric Reliability Corporation (NERC) Electronic Tagging System (e-Tags) for Determination of Regulated Entity and Quantity of Imports, Exports, and Electricity Wheeled through California.

D-5. Calculation of Covered Emissions

Comment: Stakeholders commented that more clarity was needed to distinguish between which data are reported for inventory purposes and which data are reported pursuant to section 95111 of the MRR to calculate a reporting entity's compliance obligation pursuant to the cap-and-trade regulation. SCPPA suggested "a new section … listing each subsection of section 95111 that does not give rise to a compliance obligation under the cap-and-trade regulation." [OP 06.11—SCPPA1]

Response: To address stakeholder requests for clarity regarding which reported emissions carry a compliance obligation and which are needed for inventory purposes, ARB coordinated necessary modifications to the data categories in MRR section 95111(b)(5) with modifications to section 95852(b) of the cap-and-trade regulation. The calculation for covered emissions has been moved to section 95852(b)(1)(B) of the cap-and-trade regulation to facilitate policy implementation. This equation is now referenced in modified section 95111(b)(5) of the mandatory reporting regulation. These provisions clarify that emissions reported by retail providers under subsection 95111(c) are not included in the compliance obligation.

Moreover, ARB believes it has designed the cap-and-trade program to accommodate increased reductions in covered emissions, via the equation in section 95852(b)(1)(B) of the cap-and-trade regulation, while maintaining a rigorous reporting protocol for electricity imported into and consumed in California under the MRR. The reporting protocol is consistent with reporting by operators of in-state electricity generation facilities. A rigorous reporting protocol is necessary to support ARB's GHG inventory and to inform future considerations for linkage pursuant to subarticle 12 of the cap-and-trade regulation.

ARB also included in section 95852(b)(1)(B) two terms for subtraction from a reporting entity's covered emissions: (1) electricity procured during the data year from eligible renewable energy resources located out-of-state to meet the State's Renewable Portfolio Standard requirements and (2) qualified exports. Pursuant to AB 32, statewide GHG emissions include both emissions from electricity generation facilities located in California and emissions from electricity that is imported and consumed. These changes make clear that only qualified exports, a subset of exports limited to simultaneous imports, are included in the calculation of covered emissions and reduce the compliance obligation pursuant to the cap-and-trade regulation. The qualified export adjustment addresses leakage from in-state generation under limited conditions.

D-6. Reporting Exported Electricity and Clarification of Covered Emissions Calculation Comment: Subsection 95111(a) discusses reporting of emissions factors for exports to non-linked jurisdictions. If an Electric Power Entity is exporting power from California to a jurisdiction that is not linked, section (E) stipulates that the emission factor for unspecified imported electricity is to be reported for that export. Our assumption is that this reporting requirement is for purposes of "tracking" so that California can calculate a statewide "emission balance." We further assume that the intent is not to use this calculation for purposes of calculating a compliance surrender requirement on the exporter. However, from the draft, this is not 100% clear. [OP 15.01—MSCG]

Response: The commenter is correct that emissions associated with exports are for inventory purposes and are not included in the calculation of covered emissions. See Response to D-5 regarding calculation of covered emissions which addresses qualified exports.

D-7. Reporting Specified Imports and RPS Adjustment to Covered Emissions Comment: Proposed amendments to the MRR do not recognize the GHG reduction benefits of certain contracts entered into to meet the State's Renewable Portfolio Standard (RPS) requirements. There is concern that no mechanism is included "to account for zero GHG attributes of many out-of-state renewables contracts and, as a result, would result in regulated parties having to retire allowances for these renewable resources" pursuant to the cap-and-trade regulation. Cost is a major concern; the State's renewables programs are already identified by ARB as the highest cost GHG reduction measure and these costs should not be unnecessarily increased. The GHG attributes of renewable energy generated out-of-state are owned by California utility customers who should receive credit for the GHG attributes that they have already purchased through their renewable contracts and should not be required to pay twice for their GHG benefits. [B 05.01—SSPSN], [OP 14.01-SCE1], [T 05.01-SCE2], [OP 20.01-SEU], [T 15.01-SEU], [T 09.01 – PGE2]

Response: Commenters make a case that all renewable energy procurement that qualifies for Renewable Portfolio Standard (RPS) compliance should be included in GHG emissions accounting pursuant to the MRR and reduce the

compliance obligation pursuant to the cap-and-trade regulation. Some commenters provide additional rationale for including tradable or unbundled Renewable Energy Credits (RECs), also referred to as WREGIS Certificates, to the extent tradable RECs qualify under the Renewable Portfolio Standard (RPS). ARB believes that rigorous GHG emissions reporting must be technology neutral, in that the focus is direct, source-based emissions associated with electricity that is directly delivered. Recognizing firming-and-shaping arrangements would amount to special treatment of renewable energy resources. Recognizing firming-and-shaping for all resources would be impractical. As indicated in the Staff Report, the MRR recognizes, consistent with WCI partner understanding, that for the emissions profile of electricity generated and procured, RECs play no role in GHG accounting. ARB does agree with commenters that RPS electricity should reduce the compliance obligation of a first deliverer, and included modifications in the final text of the cap-and-trade regulation to address the commenters' concerns (section 95852(b)(3) for direct delivery and section 95852(b)(4) for an RPS adjustment to the compliance obligation).

When electricity generated by a zero GHG-emitting resource is directly delivered to California, and the electricity importer (1) is a Generation Providing Entity (GPE) defined pursuant to MRR section 95102(a) or (2) has a written power contract for electricity generated by the facility, the electricity importer must report the delivery as a specified import and may claim zero GHG emissions for the imported electricity (see MRR sections 95111(a)(4) and 95111(g)(3)). This imported electricity does not result in covered emissions as defined pursuant to subsection 95102(a), or in a compliance obligation. ARB notes that the cap-and-trade regulation further stipulates that if RECs were created for the electricity generated and reported pursuant to the MRR, then the RECs must be retired and verified pursuant to the MRR (section 95852(b)(3)(D) of the cap-and-trade regulation). If the electricity importer's verifier cannot confirm that the RECs are retired, the reporting entity will be in non-conformance with this provision, but the claim to the zero GHG emission factor (0 MT of CO_2e/MWh) remains valid. While ARB recognizes the emissions profile of the imported electricity, REC retirement is needed to assure other GHG accounting programs that may assign emission attributes to RECs do not double count any avoided emissions.

Moreover, ARB added an RPS adjustment and included an equation for the calculation of the RPS adjustment in section 95111(b)(5) of the MRR.
The RPS adjustment applies to electricity that is not directly delivered to California, and therefore is not included in statewide GHG emissions accounting. The RPS adjustment is not a recognition of avoided emissions, but an adjustment to the compliance obligation to recognize the cost to comply with the RPS program. ARB included the RPS adjustment for the specific purpose of reducing the cost of RPS compliance that would be born directly or indirectly by entities that must comply with California's RPS program. The adjustment is impartially applied to any electricity importer that meets the requirements in

section 95852(b)(4) of the cap-and-trade regulation to deliver RPS electricity used for RPS compliance.

Pursuant to cap-and-trade regulation section 95852(b)(4)(B), RECs associated with the RPS adjustment must be retired in order to claim the adjustment. Electricity importers must make final corrections within 45 days following the June 1 reporting deadline and be able to provide documentation for verification that the RECs have been retired. Section 95852(b)(4) of the cap-and-trade regulation makes clear that an RPS adjustment may not be claimed when the eligible renewable resource is located in a jurisdiction where a GHG emissions trading system has been approved for linkage by the Board pursuant to subarticle 12, consistent with treatment of electricity from eligible renewable facilities under California's cap.

Before making this final decision, ARB reviewed RPS compliance mechanisms with respect to the direction provided in Health and Safety Code section 38562(d)(1) requiring ARB to ensure that the greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board. ARB considered whether "avoided emissions" attributed to procurement of renewable energy (with bundled RECs) or attributed to tradable RECs (purchased without the underlying electricity) are quantifiable and enforceable. In addition, Health and Safety Code section 38562(d)(2) requires that any reduction of greenhouse gas emissions used for compliance purposes, such as compliance offsets, must also be in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.

Delivery arrangements reviewed by ARB included tradable RECs paired with imported electricity, various firming and shaping arrangements that include procurement of the renewable electricity (and bundled RECs), and direct delivery as defined pursuant to MRR section 95102(a). ARB also considered relaxing the focus on direct delivery to allow any electricity from the same balancing authority area or jurisdiction to be recognized as from a specified source located in that balancing authority area. As suggested by stakeholders, ARB considered whether siting and transmission constraints should be factored into justification of an avoided emissions approach or a relaxed delivery definition for a spectrum of facility types. Facility types included variable renewable resources (wind, solar, and run-of-river hydroelectricity) that generate electricity on an intermittent basis, all eligible renewable resources recognized by California's RPS program, all facilities that generate electricity from renewable energy, all resources with no direct GHG emissions or resources with emissions exempt from a compliance obligation.

Finally, ARB considered how various alternatives may be implemented to assure impartiality across all electricity importers, whether they are strictly marketers or are retail providers that also purchase and sell wholesale power.

ARB concluded that the RPS was not designed to adequately quantify avoided GHG emissions incorporated in RECs or reduced emissions as required by AB 32. Factors that can complicate quantification of GHG reductions associated with renewable energy include the following:

(1) Whether a particular facility is located in a region that has an oversupply of electricity. Oversupply can dampen price signals, relative to California energy prices, that would otherwise produce GHG reductions through efficiency and conservation.

(2) Uncertainty regarding the emissions profile of the actual electricity generating facilities that stop operating, operate less often, or are not built as a result of a particular renewable energy resource. These may be hydroelectricity resources with no covered emissions or newer versus older natural gas plants with different efficiencies.

(3) The extent of emissions leakage which may occur when less efficient out-of-state natural gas facilities provide firming and shaping to replace the out-of-state renewable energy that cannot be directly delivered, causing less demand for electricity from more efficient in-state natural gas facilities.

(4) Under the cap-and-trade program, the GHG emissions cap is set at a historic baseline and declines from there to meet the 2020 target. The declining cap and number of allowances determine total GHG emissions, so that additional individual renewable energy facilities do not reduce total GHG emissions. Individual projects in capped sectors that do not emit GHGs serve to make more allowances available for trade among other market participants at lower cost.

To align incentives between the cap-and-trade program and the renewable portfolio standard, ARB decided that an RPS adjustment factor could be incorporated to reduce the compliance obligation. This approach maintains the rigor and consistency necessary for GHG emissions reporting and addresses stakeholders' concerns about additional cost of the RPS program. The intent of the Legislature, pursuant to SB 1x-2, is to increase the amount of electricity generated from eligible renewable energy resources per year, so that amount equals at least 33% of total retail sales of electricity in California per year by December 31, 2020. The RPS is designed to advance this important State policy, and ARB recognizes that significant GHG emission reductions will occur as a result.

ARB does not believe that the purchase of RECS entitles the purchaser to any right to use those avoided emissions to comply with any GHG regulatory program, and that such a right is beyond the scope of the 45-day modifications.

RPS compliance mechanisms cannot guarantee that null power (electricity generated by a renewable energy resource and sold without the RECs) generated outside California would be assigned a GHG emission factor. Determining whether the owner of the right "to use those avoided emissions" is the operator of a renewable energy resource located out-of-state, the purchaser of the renewable electricity, or the REC holder is not necessary for GHG reporting or cap-and-trade pursuant to the MRR protocol based on direct delivery of electricity.

ARB also considered whether tradable RECs may be a workable mechanism to assign and track avoided emissions, but determined that they would act as *de facto* offsets only available to the electricity sector. Tradable RECs do not meet the rigorous requirements for compliance offsets, intended to be available to all sectors, consistent with the cap-and-trade regulation, particularly additionality. Additionality requires that compliance offsets must be in "addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur." The GHG emission reductions outside California that occur as a result of RPS compliance are not additional, since they are required by California's RPS program.

Few commenters agreed with the proposed amendment published for the first fifteen-day comment period that restricted a covered-emissions adjustment to variable renewable resources, resources that cannot meet the criteria for direct delivery of electricity. The more restrictive adjustment allowed for replacement energy to be sourced from the same balancing authority area in which the eligible renewable energy resource is located. This adjustment was provided to approximate rigorous and consistent GHG emissions accounting which requires tracking all sources of electricity that are directly delivered, as defined pursuant to section 95102(a).

To address continued stakeholder concern, the adjustment was broadened in the final regulation to include all procurements of electricity during the same data year from eligible renewable energy resources located outside the state of California used to meet the requirements of California's Renewable Portfolio Standard (RPS) program that are not directly delivered. The definitions of replacement electricity and variable renewable resources (VRR) were deleted from subsection 95102(a), since the final RPS adjustment is broader than the VRR adjustment proposed for the first 15-day comment period. The definition of eligible renewable energy resource was added to section 95102(a).

D-8. Renewable Energy Credits (RECs) Western Renewable Energy Generation Information System (WREGIS)
Comment: To summarize, SMUD's main concerns have to do with excessive burdens that some of the reporting requirements will place on reporters subject to the Mandatory Reporting rule and the Cap and Trade program. Paramount among these is the shift away from the WREGIS tracking system for tracking

renewable energy, potentially significantly increasing reporting and verification costs, along with a number of unintended consequences that have not been fully vetted with stakeholders. [OP 35.01a-SMUD1]

The regulation should be altered to treat RECs and out-of-state renewable resources as having zero GHG emissions commensurate with the underlying renewable resources that they represent, in order to harmonize with the renewable energy standard, eliminate potential duplication and tracking systems, and provide support for the voluntary market. The current treatment of RECs in the reporting regulation could lead to hundreds of millions of dollars in additional costs to deliver GHG reductions as expected. Do not believe this issue has been fully vetted with stakeholders and urge figure consideration as requested in the joint utility letter submitted. Add this issue to list of issues for staff workshops in 2011, or provide explicit direction to staff for future resolution. [T 14.02 –SMUD]

Response: See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions. See Response to D-9 regarding tracking electricity generation based on existing approach to track renewable energy generation. Moreover, and in addition to the public notice and comment periods, ARB held a technical meeting on August 26, 2011 to discuss staff thinking and stakeholder suggestions for improvement, many of which are incorporated in the final amendment. ARB will continue to work with stakeholders to assure successful implementation.

D-9. Tracking Electricity Generation from Specified Sources based on Existing Approach to Track Renewable Energy Generation

Comment: Policy objectives can only be achieved by application of a high default emission rate for unspecified imports, and establishment of a reliable mechanism to allow any import with an emission rate lower than the default to claim a facility-specific rate. WPTF proposes an alternative mechanism for assigning emissions to electricity imports, based on the approach used to track renewable energy generation that would avoid these problems. We therefore request the Board to direct ARB staff to develop this tracking mechanism and make the technical modifications to the regulation necessary to accommodate this mechanism through a 15-day process during the next year. [OP 05.02—WPTF]

Response: The existing Western Renewable Energy Generation Information System (WREGIS) has been suggested informally and formally by stakeholders as a promising platform upon which to add capability to track electricity generated by specified sources and delivered to serve load in California and future participants in the Western Climate Initiative cap-and-trade program. The WREGIS tracking method allows operators of renewable energy resources to voluntarily register and assure the renewable energy is only claimed once. ARB determined that while this concept has merit and may be considered in the future, it would likely require significant investment of staff time and funds to assure the system would be verifiable and enforceable for tracking GHG

emissions. In addition, operators of out-of-state electricity generation facilities that are not also electricity importers have not been included in the scope of this regulation. ARB believes it has designed the MRR to ensure rigorous reporting sufficient to support the cap-and-trade program.

D-10. ARB Recognition of Asset-Controlling Suppliers

Comment: As the Bonneville Power Administration (BPA) has previously discussed with ARB staff, it is BPA's intent to voluntarily report on GHG emissions as an out-of-state Asset-Controlling Supplier. BPA will do so as a service to our California customers who would like to claim a BPA-specific emission rate for their purchases from BPA (note that BPA is statutorily prohibited from making specified sales from a particular generating unit – it may only sell system power). BPA appreciates that ARB has afforded BPA Asset - Controlling Supplier status through the greenhouse gas reporting regulations §§ 95102(a), 95111(b)(3), 95111(f), and in ARB's cap & trade regulations at §95802(a). [OP 26.01—BPA]

The latest draft of the MRR, section 95111(f), appears to have removed the generic language relating to the process for qualifying as an "Asset-Controlling Supplier" and replaced it with Bonneville Power Authority-specific language. It is not clear to MSCG why this would be done. We would recommend that objective qualifying criteria be retained, so that any entity that meets the qualifications can attain the designation, and be eligible for having a supplier-specific emission factor calculated for it. [OP 15.02--MSCG]

Section 95111(b)(3) Calculating GHG Emissions of Imported Electricity from Specified Asset-controlling suppliers- why BPA would be assigned any emission factor other than zero, as BPA controls no assets other than hydro, nuclear, or wind generation. Any power delivered into California generated from BPA system should have an emissions factor of zero and not carry a compliance obligation. [OP 29.03—RMTUD]

Response: ARB believes that the modifications to the MRR do not limit the asset-controlling supplier provisions exclusively to the Bonneville Power Administration (BPA). ARB has provided an asset-controlling supplier system emission factor for BPA in the revised MRR, based on data provided by BPA pursuant to the 2007 MRR, because BPA was the only entity to apply for consideration during the 2008-2010 data years. However, although no other entities have applied for similar consideration, the asset-controlling supplier provisions have been maintained in the modified MRR so other entities that meet the definition of asset-controlling supplier pursuant to section 95102(a) have the option to report to ARB the additional information required in section 95111(f) to receive a system emission factor, as calculated pursuant to section 95111(b)(3). ARB will work carefully with any applicant for asset-controlling supplier status to ensure successful program implementation, and to avoid the reporting of GHG emissions in a manner that conflicts with the resource shuffling provisions of the cap-and-trade regulation. ARB will provide the emission factors calculated for

every asset-controlling supplier on its mandatory reporting website, along with the emission factors for other specified sources. ARB notes that the system factor for an asset-controlling supplier is calculated based on the information provided about the entity's fleet, and the resulting factor could be above or below the default emission factor for unspecified sources. ARB also notes that it has included a provision in the amended MRR to allow BPA to update its system emission factor whenever BPA voluntarily reports additional data required for asset-controlling suppliers.

Regarding the comment [OP 29.03 – RMTUD], ARB notes that pursuant to section 95111(a)(5), electricity importers who are importing electricity from BPA's system must claim BPA's system emission factor calculated by ARB when BPA is the supplier and is documented on a NERC e-Tag as the PSE at the first point of receipt. The purpose of this provision is to assign the appropriate emission factor to surplus electricity supplied by the BPA system and imported into California. ARB concluded that assigning this electricity the default emission factor for unspecified sources was inaccurate and inappropriate, given that the factor is based on an estimate of emissions from facilities available to provide electricity on the margin, which are typically natural gas-fired. While BPA markets wholesale electrical power from thirty-one federal hydro projects in the Columbia River Basin, one nonfederal nuclear plant and several other small nonfederal power plants, it does purchase a small fraction of its electricity, relative to its generation, to balance its system. This is the reason BPA's system-wide emission factor is not zero, but instead is a weighted average of all system power that is marketed. While electricity importers may or may not specify BPA-sourced electricity at the time of the transaction, the NERC e-Tag provides sufficient documentation to characterize the emissions profile of BPA electricity when the emissions data report is compiled.

D-11. Use of System Emission Factor for Multi-jurisdictional Retail Providers
Comment: PG&E recommends assigning the default emissions rate for marginal electricity supplies to wholesale imports from any entity (market power). PG&E believes that the ARB's approach makes sense for deliveries to the long-standing customers of each multi-jurisdictional entity. Each entity has assembled a portfolio of electricity supplies to meet the demands of its customers. The portfolio-average emission rate is appropriate for application to deliveries to those customers.

PG&E does not support applying portfolio-average emission rates to wholesale imports into California. Because marginal supplies of electricity are freely traded, an import into California's wholesale market, whether from BPA or PacifiCorp or some other entity, may reasonably be regarded as drawing from the same pool of marginal electricity supplies. Consequently, PG&E supports assigning the default emission rate of those marginal electricity supplies to wholesale imports from any entity. ARB has proposed to adopt 0.435 metric tonnes/MWh (including

losses) as the default emission rate for imports from unspecified sources, based upon an analysis of marginal electricity supplies in the WECC. [OP 07.04—PGE]

Response: ARB agrees that emissions from electricity supplied by PacifiCorp in the wholesale market should be accounted for in the same manner as electricity from unspecified sources, consistent with WCI recommendations. ARB made the suggested change.

Moreover, given that the MRR has provisions specifically designed for multi-jurisdictional retail providers (see sections 95102(a)(246), 95111(d) and 95111(b)(4)), ARB decided to remove the text regarding multi-jurisdictional retail providers from the definition of "asset-controlling supplier." ARB notes that it decided against applying a system emission factor to wholesale sales because, while ARB has the data required to calculate system emission factors for multi-jurisdictional retail providers, wholesale power imported into California from these suppliers is likely coming from marginal plants and emissions should be accounted for in the same manner as electricity from unspecified sources. In addition, calculating a higher emission factor for electricity from these suppliers would be unlikely to provide real GHG emission reductions in California or the western region bulk power system. However, as explained in Response to D-10, the option to become recognized by ARB as an asset-controlling supplier remains open to entities, including multi-jurisdictional retail providers, that meet the definition of asset-controlling suppliers.

At the present time, PacifiCorp is the only multi-jurisdictional retail provider in California. PacifiCorp's system emission factor is calculated pursuant to the same methodology as an asset-controlling supplier provided in section 95111(b)(3) and is used to determine the emissions associated with retail sales to its California customers. ARB corrected the compliance obligation equation for multi-jurisdictional retail providers (§95111(b) and (d)).

ARB disagrees that electricity sold by BPA that originates from its system should also be accounted for in the same manner as electricity from unspecified sources. See Responses to D-10 and P-18 regarding ARB recognition of asset-controlling suppliers.

D-12. Appropriate Default Emission Factor for Unspecified Sources

Comment: Policy objectives can only be achieved by application of a high default emission rate for unspecified imports, and establishment of a reliable mechanism to allow any import with an emission rate lower than the default to claim a facility-specific rate. To address this problem, WPTF recommends that the default emission rate be set at 1100 lbs. CO_2 equivalent per MWh, because this represents the emission rate of the higher heat-rate gas facilities that are likely to determine market-clearing prices in California. This level of default is supported by analysis conducted by E3 for the Western Climate Initiative*, which showed that there would be substantial opportunities and incentives for emission leakage from gas units if a default emission rate less than this level is adopted.

http://www.westernclimateinitiative.org/component/remository/Electricity-Team-Documents/Oct-16-2008-Technical-Advisory-Group-Meeting-Materials/E3-Leakage-Presentation/. [OP 05.01—WPTF]

The proposed amendments to the MRR would set forth a procedure for calculating the default emission rate for unspecified power based on the average emissions rate derived using calculation tools developed by the Western Climate Initiative and announced by CARB along with the proposed MRR amendments. This default emissions rate will then be used to calculate the allowance compliance obligation for unspecified power under the proposed regulation's cap and trade program. Calpine is concerned that, by relying upon a low default emissions rate for unspecified power, the proposed regulation will have the effect of allowing first delivers to classify their higher emitting imports as unspecified power so that they will be treated more favorably, in comparison to lower-emitting specified sources of imported power and in-state generating sources. This would have a perverse consequence of encouraging increased dispatch of higher-emitting sources, to the detriment of both lower-emitting specified imports and in-state generating sources. To address this problem, Calpine recommends that the default emission rate for purposes of both the proposed amendments to the MRR and the proposed regulation should be set at 1,100 lbs (0.55 tons) CO_2e per MWh, which is equivalent to the State's Emissions Performance Standard and therefore represents the emission rate of the higher heat-rate existing combined-cycle gas- fired power plants likely to determine market-clearing prices in California. [OP C&T 224-Calpine]

Response: As explained in the Staff Report, ARB based the default emission factor for unspecified electricity on the method adopted by the Western Climate Initiative. ARB believes the factor proposed is an accurate and appropriate calculation of GHG emissions from unspecified sources. The emissions must be calculated using an objective and transparent method, which ARB believes it has done.

ARB agrees that the default emissions rate for unspecified imported electricity is, by necessity, a calculated average. The emission factor is calculated as the average emission factor for power plants outside of California located in the Western Electricity Coordinating Council (WECC) that are available on the margin, i.e., they are not dedicated to serving baseload. Baseload plants are considered to have a capacity factor greater than 60 percent. The factor is lower than some high-emitting sources available in the western region bulk power market. Absent other measures, there could, in some cases, be an incentive to dispatch higher-emitting resources. However, this incentive is mitigated by the higher costs of operating higher-emitting less efficient plants relative to lower-emitting efficient plants. See also Response to P-19 regarding appropriate default emission factor for unspecified sources.

D-13. Transmission Losses and Default Emission Factor for Unspecified Sources
Comment: ARB should revise the calculation in 95111(b)(1) for unspecified imports because the emission factor includes line losses already. The calculation in 95111(b)(2) for specified imports line losses should also be revised. [OP 07.03—PGE]

Comment: Several clarifications, as discussed below, are necessary to ensure accurate reporting. Section 95111(b) references the inclusion of an adder for transmission losses. Two clarifications to this section are needed. First, the ISOR at page 167 states: "Marginal facility capacity factors are less than 60 percent and 2 percent transmission line losses are included. The resulting default emission factor is 0.435 MT of CO_2e/MWh." It would therefore appear that the emissions profile for an unspecified resource already accounts for losses. However, Section 95111(b)(1) would attribute a further 2 percent loss factor for deliveries in which the losses are not made up in other electricity deliveries reported or from California sources. This seems to result in the potential for overstating the emissions associated with unspecified imports by double-counting the transmission loss attribute.

Second, the language used to describe which loss factor to use is not sufficiently clear. Section 95111(b) states that the Transmission Loss ("TL") is as follows:

TL = 1.02 when transmission losses are not made up in other electricity deliveries reported or from California sources.
TL = 1.0 when transmission losses are made up in other electricity deliveries reported or from California sources.

It is not clear what the language considers to be "made up from California sources." SCE transacts within the California Independent System Operator's ("CAISO") Balancing Authority. As such, any import at the border will have losses between the border and the load which is served. These losses are accounted for by the CAISO, which dispatches additional resources to balance supply and demand. Accordingly, SCE believes that the losses associated with such imports have been "made up from California sources." SCE seeks clarification that this is the case. [OP 14.06b—SCE1]

Response: ARB has modified the default emission factor. Specifically, ARB notes that the transmission factor of two percent was included in the WCI calculation of the default emission factor. ARB recalculated the emission factor, using the final calculator adopted by WCI (referenced in the Staff Report) but with no losses, and published this in modified section 95111(b)(1) as 0.428 MT of CO_2e/MWh. Transmission losses are applied to reported MWh imported, pursuant to the calculation provided in section 95111(b)(1), not within the emission factor calculator. The transmission loss factor description was simplified to address the comments regarding clarity.

D-14. Relationship between the Cap-and-Trade Regulation Definition of Resource Shuffling and MRR Section 95111(g)(4)

Comment: Section 95111(g)(6) on low-emitting resources should be revised. Section 95111(g)(6) requires entities to report emissions for zero-emitting hydro and nuclear resources unless they meet certain conditions. A compliance obligation may result under the cap-and-trade regulation. The section 95111(g)(6) reporting requirement is inappropriate. Section 95111(g)(6) requires a deliberate falsification of emission reports by reporting entities and an artificial increase in emissions liability that is disconnected from reality. Section 95111(g)(6) should be revised so that it does not require reports of non-existent emissions.

Additionally, section 95111(g)(6)(A) should be revised to include renegotiated contracts for smaller shares or quantities of generation, and section 95111(g)(6)(D) should be revised to clarify that it covers the redistribution of power from Hoover Dam under the Hoover Power Allocation Act that is currently being considered by Congress or any similar act. Suggest deleting: "If none of the conditions in (A) through (D) above are met, apply the default emission factor for unspecified electricity pursuant to section 95111(b)." [OP 06.15—SCPPA1]

The default emission factor should be attributed appropriately. Smaller shares should be allowed and time limits should be removed for contract renegotiation related to existing hydroelectric or nuclear facilities. Section 95111(g)(6)(A): Electricity purchased with a written contract in effect prior to January 1, 2010 that remains in effect or has been renegotiated for the same facility for the **same share or quantity of net generation within one year of contract expiration** (emphasis added). SCE understands these requirements are intended to avoid "contract shuffling." However, this provision requires an entity to re-contract for exactly the same quantity or share that it previously had. SCE understands that larger shares or quantities could be an indication of "contract shuffling," but does not believe that smaller shares or quantities would present the same concern. SCE therefore recommends that this language be modified to allow for "…the same facility for up to the same share or quantity…." In addition, SCE is concerned about the time limits placed around the renegotiation. Under this requirement, no entity other than the original purchaser can claim these resources as non-emitting. SCE does not believe that a renegotiation that takes 366 days or even several years would represent "contract shuffling." SCE therefore recommends the removal of a time limit for completion of the renegotiation process. [OP 14.05—SCE]

95111 (g) (6) Low GHG – Emitting Existing, Fully Committed Resources: Nuclear or Large Hydroelectric Resources: Is it the intent of this section that only the original contractual rights holder can claim the zero emissions resource for imports into California? Stated another way, can the contractual rights to the zero emissions resource be sold or assigned to another market participant for

import into California after January 1, 2010? We strongly urge that the rule explicitly state how assignments and sales of existing contracts are to be treated.

Are there any requirements with respect to operational dates for the capacity addition to qualify? Whether the answer is yes or no, we believe it would be useful for the MRR to clearly so state.

The responsibility for adding this factor to industry documentation, via some action such as adding a field to the Confirmation, probably falls to market participants. We urge ARB to include some description of what will constitute acceptable documentation of “spill or sell” in the MRR. [OP 15.04—MSCG]

Sempra Generation is an independent power producer which operates a fleet of clean, efficient gas-fired combined cycle generators directly serving the California energy market. These resources include plants located in southern Nevada, Arizona and northern Baja Mexico, which have historically sold all but a small percentage of their output to California, and are therefore not the subject of regional emissions leakage or shuffling concerns associated with AB32 implementation.

A portion of the power from Sempra Generation's combined cycle plants in southern Nevada and Arizona is dynamically scheduled directly to the California Independent System Operator (CAISO), with the majority transmitted via static interchange schedules from their host balancing authority areas to the CAISO. NERC e-Tags are generated for these sales as required for transactions between balancing authority areas.

Sempra Generation's combined cycle plant in northern Baja, Mexico, Thermoelectrica de Mexicali (TDM) is directly connected to the California electric grid, and its power is directly scheduled into the CAISO system. As with plants located inside the CAISO control area, e-Tags are not generated for sales from TDM. Power from these facilities may be imported directly by Sempra Generation or by purchasing retail providers, with each respectively being the first deliverer under AB32.

Sempra Generation's asset portfolio also includes renewable generation. Output from Sempra Generation's two existing PV solar projects in Southern Nevada (totaling 58 MWs) is sold under long term contract to a California retail provider. Output from Sempra Generation's Energia Sierra Juarez (ESJ) wind project, in development in northern Baja Mexico, would be delivered to a new point of interconnection inside the U. S. (the ECO Substation is currently under review for approval by the California Public Utilities Commission). Power from ESJ would be scheduled directly into the CAISO system, without e-Tags. Output from all the renewable projects may be sold directly to California pursuant to bilateral contracts with California retail providers without requiring firming or shaping.

Sempra maintains separate project companies for each of its wholly owned projects. All power from the gas-fired power plant companies is contracted to Sempra Generation. Sempra Generation in turn contracts with California retail providers or sells power into the CAISO spot markets. GHG emissions data from Sempra Generation's combined cycle plants in Nevada, Mexico and Arizona have been voluntarily reported through the California Climate Action Registry and independently verified. GHG emissions data from the combined cycle plants in Nevada and Arizona are provided under the EPA Mandatory Reporting Rule, while emissions from TDM will continue to be reported through the California Climate Action Registry.

Sempra Generation would like to ensure that output from its facilities will be treated as specified power applying plant specific emission rates and, in the case of the renewables projects, with zero GHG emissions. 3 We believe the existing regulation provides, or is intended to provide, for this result. (See e.g., Sec. 9511 l(g)(3) and (4)). However, to avoid future confusion, Sempra Generation requests that clarifying amendments be included in the foreseen follow-up amendments to the regulations that could be adopted after an additional 15-day notice. We believe that the purposes of AB32 are best served by encouraging and providing recognition for all lower GHG emitting sources selling power to California loads. The proposed reporting rule allows retail providers to specify plant-specific emission rates for their contracts with out-of-state generators. However, the Rule should also clearly provide independent power producers and marketers such as Sempra Generation, the option to specify their plant-specific emission rates for sales into the California market. These emission rates should be used to define the First Deliverer (FD) compliance obligation under the ARB Cap and Trade system. As contract commitments change over time, it is appropriate that these plant-specific emission rates continue to define the FD obligation for associated power sales to the California market, whether to specific retail providers, or on a spot basis through the California Independent System Operator. In order to facilitate the use of the plant-specific emission rates in the Cap and Trade system, CARB should also clarify that GHG emission data from facilities outside the U.S. reporting and independently verified through the California Climate Action Registry may be used to defining Cap and Trade obligations for plants importing power into California that are not subject to EPA Mandatory Reporting Requirements. [OP 30.01—SG]

Response: ARB agrees that the basis for a valid claim to specified resources must be impartial as to whether an electricity importer is a retail provider or a marketer, as defined pursuant to section 95102(a), and is applicable to bilateral contracts as well as electricity sold into the CAISO markets.

Section 95111(g)(6) was eliminated and section 95111(g)(4) was modified to include all types of resources, beyond nuclear power and hydroelectricity. ARB made the suggested modification to clarify that smaller amounts of electricity should be included. The re-contracting time limit was retained to track continuity

of specified sources serving California load. Additional information categories were added, including a category for electricity imported from facilities that operated primarily to serve California load during 2009 and 2010, baseline reporting years in which verification was required. No restriction has been placed on the operational dates for additional capacity to be reported.
ARB included a provision to address calculation of emission factors for new facilities and facilities located outside the U.S. in section 95111(b)(2)(D). For these facilities where ARB, U.S. EPA, or EIA data are not available, ARB will assign an emission factor based on the type of fuel combusted or the technology used and may consider data reported and independently verified through the California Climate Action Registry.

See Response to P-17 regarding the relationship between the cap-and-trade regulation definition of resource shuffling and MRR section 95111(g)(4).

D-15. Recordkeeping Requirements Pursuant to Section 95111(a)
Comment: Section 95111(a) requires the electric power entity to retain for purposes of verification all information "needed" to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105. As previously mentioned the word "needed" lacks specificity as related to the requirements of the regulation. In this case Section 95131(b)(1)(C) of the Article is specific in defining the verification information needed including; "a description of the specific methodologies used to quantify and report greenhouse gas emissions, electricity and fuel transactions, and associated data as needed to develop the verification plan." Section 95111(a)(10) is for the purposes of verification the language should specifically be amended as follows: (10)Verification Documentation. The electric power entity must retain for purposes of verification NERC e-Tags, written contracts, settlements data, and all other information needed as required under Section 95131(b)(1)(C) to confirm reported electricity procurements and deliveries pursuant to the recordkeeping requirements of section 95105. [OP 20.055--SEU]

Response: Section 95111(a)(10) was renumbered to section 95111(a)(9) and the word "needed" changed to "required." Section 95105(d) (GHG Inventory Program for importers and exporters of electricity) was modified to clarify the required documentation to support reporting and verification of electricity procurements and deliveries. Section 95131(b)(1)(C), renumbered to section 95131(b)(1)(A)(3), applies to the development of a verification plan by a verifier, not to reporting entities. As such, ARB has declined to include a reference to section 95131(b)(1)(A)(3) in modified section 95111(a)(9).

D-16. Total Generation Data Not Available and Reporting by Point of Receipt
Comment: Further complications introduced for reporting include the requirement to report total generation from specified facilities for which we have no ownership control over and therefore do not have this information readily at hand, and requirements to report unspecified power transactions by point of receipt, a

requirement that adds no apparent value, yet significantly complicates the reporting and verification process. [OP 35.01b—SMUD1]

The Proposed Amendments require purchasers of specified import sources to report the "total facility or unit gross and net generation." SCE is concerned that this information may not be readily available to the purchaser of imported electricity from resources that the purchaser does not fully or partially own. These purchasers would have to add such a requirement to their power purchase agreements ("PPAs"). However, making this a contractual obligation will require significant work and tracking on the part of the purchasing entity, and might be possible only for new PPAs, as opposed to existing PPAs. Reliance on public sources for this information is also problematic because they may not be accurate, given that those public reports may rely on different assumptions, such as the time period for which such data is recorded. Furthermore, SCE does not believe that this information is necessary to implement the cap-and-trade program. [OP 14.02a—SCE]

Similarly, Section 95111(g)(1)(G) requires the purchaser of specified imports to report whether the source emitted more than 25,000 tons in the prior year. This too is information which the reporting entity is not likely to have readily available. In addition, the collection of such data would be burdensome for purchasers who import electricity from a large number of specified import sources. SCE does not believe that this information is necessary to implement the cap-and-trade program. Therefore, SCE recommends the removal of the requirements in Sections 95111(a)(4)(B)(1) and 95111(g)(1)(G). [OP 14.02b—SCE]

Response: ARB removed the requirement for electricity importers to report total generation from specified facilities in which they have no ownership control. Only "generation providing entities" defined pursuant to section 95102(a) are required to report this information pursuant to section 95111(g)(1). ARB added clarifying language to section 95111(a), including a specification that delivered electricity must be disaggregated by first point of receipt. ARB clarified in section 95105(d) that NERC e-Tag data is the basis for determining megawatt-hours of imports, exports, and electricity wheeled through California. The first point of receipt for imports and wheels is provided in the same query. ARB also deleted the requirement to report whether a specified source emitted more than 25,000 tons in the prior year, since ARB will review U.S. EPA GHG data and EIA data to determine this.

D-17. "Imported Electricity" and "Electricity Wheeled Through California" Definitions Comment: The definition of "imported electricity" should be revised. Although "electricity wheeled through California" is defined separately in section 95102(a), the term is defined again within the definition of "imported electricity" in section 95102(a). Instead of re-defining a term that is already defined, the definition of "imported electricity" should refer to the definition of "electricity wheeled through California." This would avoid the confusion that might arise if there are two

slightly different definitions in different places in the regulation. [OP 06.03—SCPPA1]

Response: ARB agrees with the comment and has made the change.

D-18. Additional Requirements for Retail Providers, Excluding Multi-jurisdictional Retail Providers

Comment: The ISOR states (p. 170) that the retail sales information required under section 95111(c), presumably subsections (1) and (2), does not need to be verified. This should be indicated in the Revised MRR itself, which currently requires all reported information to be verified.

It is unclear why subsections (3) and (4) are included in section 95111(c). The requirements in those sections duplicate information that is covered elsewhere in section 95111.

Section 95111(c)(5) requires retail providers to report electricity imported by other electric power entities to serve their load. A retail provider may not know the source of electricity provided by other electric power entities and may not even know whether that electricity was imported. Retail providers should not be required to report this information. The information should be reported by other entities (the importers). If retail providers are required to provide this information, it should not be subject to verification and should not give rise to a compliance obligation for the Retail Provider. [OP 06.14—SCPPA1]

Response: ARB agrees and made the clarification in section 95111(c)(1) so it now reads:
"A retail provider who is required only to report retail sales may choose not to apply the verification requirements specified in section 95103, if the retail provider deems the emissions data report non-confidential."

In addition, ARB deleted the duplication in sections 95111(c)(3) and (4).

ARB also concluded that the information reported pursuant to section 95111(c) is clearly supplementary. The basis for calculating covered emissions that represent a compliance obligation was included as an equation in section 95852(b) of the cap-and-trade regulation. See Response to Z-22 additional requirements for retail providers, excluding multi-jurisdictional retail providers (section 95111(c)(4)).

D-19. Additional Requirements for Retail Providers not Multi-jurisdictional

Comment: Section 95111(c)(4)(B) requires the retail provider to report sales made outside California from fully or partially owned resources which have an emission factor higher than the default emissions factor. In addition, Section 95111(g)(5) requires that the reporting of GHG emissions by retail providers account for their full ownership share of these same resources. It is not clear why the reporting of sales from fully or partially owned resources outside California is

necessary. Since the total amount of emissions will ultimately be accounted for on an ownership-share basis, the reporting of sales is unnecessary. Although the Initial Statement of Reasons for Rulemaking ("ISOR") appears to indicate that these sections are necessary to avoid "contract shuffling," it is not clear to SCE what "contract shuffling" would be prevented by Section 95111(c)(4)(B) that is not already prevented by Section 95111(g)(5). Given this, SCE asks that Sections 95111(c)(4)(B) and 95111(g)(5) be considered in tandem, such that if an entity is required to meet the requirements of Section 95111(c)(4)(B), it is then relieved of the obligation to report under Section 95111(g)(5). Such treatment would reduce the potential for duplicative reporting. [OP 14.03b—SCE1]

Response: In cases where electricity generated according to the ownership share is not imported into California, and thereby carries no compliance obligation, ARB requires this data to monitor whether GHG emission reductions observed are real. ARB recognizes that importing less electricity than the ownership share may or may not be evidence of resource shuffling, since other factors, such as transmission congestion, can be responsible. See Responses to P-30 and Z-22 additional requirements for retail providers, excluding multi-jurisdictional retail providers (section 95111(c)(4)).

D-20. Reporting When a Specified Emission Factor Exceeds 1,100 lbs CO_2e/MWh
Comment: The Proposed Amendments require the reporting of information that is duplicative or unnecessary. Section 95111(a)(4)(B)(2) requires the purchasers of specified import resources to indicate whether the emissions of the specified imported resource exceeds 1,100 lbs CO_2e/MWh. However, a later section, 95111(b)(2), states that the emission factor (i.e. lbs CO_2e/MWh) for unit-specified facilities is what is published on the CARB Mandatory Reporting website. Thus, the information required in 95111(a)(4)(B)(2) is already known by CARB, and therefore should not be included in the reporting requirement. Although reporting entities will have access to this data, requiring them to report it is unnecessary because CARB will already have the information necessary to determine which resources in excess of 1,100 lbs CO_2e/MWh have been procured as a unit-specified import. Accordingly, SCE believes that this reporting requirement introduces inefficiencies. [FF 14.03a—SCE1]

Response: ARB agrees with the comment and removed the requirement.

D-21. Additional Requirements for Retail Providers not Multi-jurisdictional, Subsection 95111(c)(3)
Comment: Section 95111(g)(5) should be clarified or deleted. The language does not specify whether a compliance obligation ("emissions penalty") will be imposed upon the owner of a high-emitting out-of-state generating resource if the owner imports < 90% of the owner's share of the electricity from the generating resource into California, and the remainder is sold to another party out of state. This section should be deleted because electricity generated outside of California that is not imported into California is not a California greenhouse gas emission

and is not subject to reporting under AB32 section 38530 (Mandatory Greenhouse Gas Emissions Reporting).

AB32 section 38530 (2): Account for greenhouse gas emissions from all electricity consumed in the state, including transmission and distribution line losses from electricity generated within the state or imported from outside the state… [OP 38.11—LADWP]

Response: The calculation for reporting emissions associated with electricity not delivered to California, applicable to retail providers who own or operate higher-emitting GHG facilities, was moved to section 95111(c) from section 95111(g)(5) to consolidate additional reporting requirements that apply to retail providers and not marketers. These modifications are necessary to provide clarity to reporting entities.

Retail providers that are not multi-jurisdictional must report this supplementary information to ARB pursuant to subsection 95111(c)(3). ARB has clarified that this information is supplemental by including a subscript to the emissions equation to indicate the emissions are “not imported” and providing an equation to calculate covered emissions. The basis for calculating covered emissions that represent a compliance obligation is included as an equation in section 95852(b) of the cap-and-trade regulation.

D-22. Additional Requirements for Retail Providers not Multi-jurisdictional, Subsection 95111(c)(4)
Comment: CARB should remove the requirement for retail providers to report electricity imported from specified and unspecified sources by other entities. Section 95111(c)(5) states: "Retail providers that report as electricity importers also must separately report electricity imported from specified and unspecified sources by other electric power entities to serve their load, designating the electricity importer."

It is not clear to SCE what the intent of this section is, but in any event, its implementation will likely be impossible. As a retail provider, SCE frequently purchases power from counterparties (such as marketers) with the specification that SCE will take delivery within its service territory in California. In such cases, SCE does not know from where the counterparty has sourced this power, and whether any of the delivered electricity was imported into California. In fact, since the counterparty is likely selling from a portfolio of resources, the counterparty may not be able to pinpoint the source, or whether the electricity it is selling to SCE was imported. Given the complex nature of wholesale electricity markets, it is very possible that the counterparty will be reseller of power that was sold by a third party (or many third parties), without a clear knowledge of who was the electricity importer (i.e., the first jurisdictional deliverer) if the electricity was indeed imported into California. Therefore, it will be extremely difficult, if not impossible, to require the counterparties to disclose whether they are selling imported electricity, and if so, whether the electricity was imported from specified

or unspecified sources, and who imported it. SCE recommends that CARB remove this reporting requirement because retail providers, in most cases, will not have access to such information, even if such information exists, for example, in form of NERC e-Tags. [OP 14.07—SCE1]

Response: Retail providers that are not multi-jurisdictional must report supplementary information to ARB. ARB believes the information required pursuant to subsection 95111(c)(4) is needed to assist ARB in assuring all imported electricity is being reported. ARB will use a variety of data sources to assure complete reporting and understands that this particular data set will provide an incomplete picture of all imports. However, this data set has particular value to ARB since it will identify all importers that deliver electricity into California for which a retail provider is the final PSE, or load-serving entity (LSE), as documented on NERC e-Tags. This requires a simple query of the NERC e-Tag database, similar to that required pursuant to section 95105(d) for electricity they import themselves.

D-23. Reporting Federal Hydroelectricity

Comment: Section 95111(g)(6) should be deleted. The language does not specify whether a compliance obligation will be imposed upon electricity imported from a zero GHG emission generating resource that does not meet one of these conditions. In 2017, the shares of Hoover Dam will be redistributed, changing the share of all the existing participants and adding new participants. As a result, all of the participants in Hoover would no longer be able to claim condition (A).

Applying a default emission factor to electricity from zero GHG emitting resources is false and inaccurate. In addition, applying default emissions to some zero GHG emitting generating resources while attributing zero emissions to other zero GHG emitting generating resources is inconsistent, which violates section 38530(b)(4) of AB32 which states the reporting regulation shall “Ensure rigorous and consistent accounting of emissions…”

Furthermore, this provision contradicts several of the stated Objectives of the Proposed Regulation and Revisions on page iii of the ISOR: collect data that are sufficiently rigorous and consistent to support GHG cap-and-trade and other ARB programs; harmonize California reporting requirements with U.S. EPA reporting requirements to simplify and streamline GHG reporting.

The U.S. EPA reporting rule does not apply default emissions to zero GHG emissions generating resources. [OP 38.12—LADWP]

Response: ARB has deleted section 95111(g)(6). ARB added information requirements in section 95111(g)(4) for claims to specified source deliveries. Whether electricity imports can be described by one of these categories is not required for a valid claim to a specified source. ARB does not intend the information required in section 95111(g)(4) to be used to exclude the activities that would be considered resource shuffling by an individual reporting entity,

pursuant to the cap-and-trade regulation. This information will not be used, as was envisioned originally, to assist entities trying to report within the bounds of resource shuffling limitations in the cap-and-trade regulation and to inform the verification process. Instead, the information required pursuant to section 95111(g)(4) will be used by ARB, in addition to data from section 95111(c) and other available data, to monitor whether GHG emission reductions from electricity imported into California are real or are negated by actions outside the control of individual reporting entities and ARB's jurisdiction.

ARB has clarified that for purposes of reporting imported electricity from existing federally owned hydroelectricity facilities allocated by contract, pursuant to section 95111(g)(4)(C), the continuity conditions are reset "after changes in rights due to federal power allocation or redistribution policies, including acts of Congress, and not related to price bidding." The phrase "including acts of Congress" was added to address LADWP's question about federal redistribution.

In some situations, reporting entities may choose to use a higher emission factor, including the default emission factor for unspecified sources, to avoid intentionally underreporting. If claiming a lower facility-specific emission factor would cause the reporting entity to "receive credit based on emissions reductions that have not occurred," pursuant to the definition of resource shuffling in section 95802(a) of the cap-and-trade regulation, the reporting entity must specify the source, but may use a higher emission factor. Specifying the source will provide necessary information for ARB program monitoring while providing flexibility to conform to the resource shuffling prohibition pursuant to section 95852(b) of the cap-and-trade regulation as well as conform to requirements in the MRR to certify the GHG emissions data report is "true, accurate, and complete."

ARB does not agree with the commenter that applying a different emission factor to a particular source of electricity is false, inaccurate, or inconsistent. A finding of fact articulated in the *Interim (CPUC/CEC) Opinion on Reporting and Verification of GHG Emissions in the Electricity Sector,* included as appendix D in the 2007 *ARB (MRR) ISOR*, states, "to ensure that only real GHG reductions are calculated for power transactions reported by California retail providers, ARB may need to attribute emissions to purchases or sales of power by California retail providers that are different than the GHG emissions that occur from the source specified in the contract." In addition, it was well understood that "the issue of contract shuffling is not entirely distinct from the reporting and verification policies." They concluded that "the reporting and verification protocol should therefore not recognize apparent emissions reductions resulting from such transactions."

Finally, ARB notes that the U.S. EPA mandatory reporting rule is not intended to support accounting of statewide GHG emissions that include imported electricity, as required by AB 32.

D-24. Registration Deadline for Specified Sources

Comment: PG&E would like a Jan 31 of the year following the emission year as the registration date for specified sources. [OP 07.05—PGE]

The reporting timelines allow insufficient room for the reporting entity to validate the data prior to submittal. Section 95111(g)(1) requires that electricity importers register their specified sources and suppliers by January 1 of each reporting year. SCE understands this to mean that, for example, a transaction executed in 2012 would require the importer to register the source and supplier by January 1, 2013. SCE is concerned that in a dynamic market, it is possible for new specified transactions with sources and suppliers to occur at any time of the year. This could prove problematic if such a transaction were to occur late in the year. For example, a transaction executed on December 31, 2012 would require SCE to report its source and supplier on January 1, 2013. This is clearly unrealistic, in part because this limited window provides inadequate time for the accumulation and validation of the data prior to submittal. SCE recommends that the reporting deadline be extended beyond January 1 of each reporting year to allow sufficient time to gather and submit complete and accurate data. Instead of January 1, SCE recommends that CARB adopt March 31 of each reporting year as the deadline for electricity importers to register their specified sources and suppliers during the previous calendar year. [OP 14.04—SCE1]

It is not possible to complete by 1/1/11. All specified sources are not known at the beginning of the year. There is no rational for this level of detail. [OP 20.04—SEU]

Section 95111(g) would require any electricity importer claiming specified sources and suppliers to register the source by January 1 of each reporting year. This deadline is impractical because many contracts are signed late in the year prior to a reporting year, and in some cases, an importer may not have the information until after the January 1 deadline. Section 95111(g) should be amended to either impose a later date such as June 1 and/or include some flexibility to allow importers to update the registration information. [OP 23.01g—PC]

Response: ARB has modified the registration date from January 1 to February 1. ARB views annual registration, by February 1 of the year each emissions data report is due, as necessary to support the calculation of facility-specific emission factors prior to the reporting deadline. The date was extended from January 1 to February 1 to allow more time as requested by stakeholders. ARB uses the term “anticipated” sources to recognize that some may not be claimed in the final report.

D-25. Retail Sales

Comment: Section 95111(c)(1) requires retail providers serving California load to report California retail sales. SCE would prefer the following formulation, which would clarify the requirement: “Retail providers that serve California load must

report the MWhs delivered to their California retail customers." Given that the current CARB reporting regulation has an extensive section on retail sales reporting with a large number of requirements, SCE would like this section to specify that, with this requirement, CARB is simply asking for the total MWhs used to serve end-use customers. [OP 14.06a—SCE]

Response: ARB did not make the change. ARB believes the requirement is sufficiently clear that what is required is simply the total megawatt-hours of "electricity sold to retail end users," pursuant to the definition of "retail sales" in section 95102(a).

D-26. Multi-jurisdictional Retail Provider System Emission Factor
Comment: PacifiCorp recommends (1) greater flexibility in reporting when certain information is not available to a reporting entity, (2) clarity regarding certain reporting requirements that apply to MJRPs, and (3) sufficient opportunity for an MJRP to comment on the calculation of its SEF.

PacifiCorp's owned-generation portfolio is a mix of assets located within nine western states (Arizona, California, Colorado, Idaho, Montana, Oregon, Utah, Washington, and Wyoming). Consistent with a long-standing regulatory practice agreed to among the various state regulatory entities overseeing its operations, nearly all energy produced by PacifiCorp-owned resources, as well as most purchased energy delivered pursuant to power purchase agreements, is referred to as "system" power. System power is electricity that is not specifically assigned by PacifiCorp for use within a particular state or balancing authority area and is operated to meet system wide needs. Unlike IOUs located entirely within California, PacifiCorp aggregates all of the costs for generating and maintaining the appropriate level of the power within its system, and then allocates to each jurisdiction a proportionate share of system resources and related costs based upon the retail load served in that jurisdiction. PacifiCorp's California retail customers consume slightly less than a two percent (2%) share of PacifiCorp's system resources.

ARB's Calculation of the System Emissions Factor ("SEF") under the Amended Regulation Should Provide a Timeframe for ARB's SEF Determination to Avoid the Risk of Compliance Penalties. The Amended Regulation would require the ARB to calculate and publish on the ARB Mandatory Reporting website a SEF for each MJRP. However, the Amended Regulation does not specify when the ARB will make and publish this calculation. PacifiCorp is concerned that the timeframe for the ARB's publication of the SEF could conflict with the Company's compliance deadlines under the cap-and-trade program, exposing the Company to compliance risk outside of its control.

The Amended Regulation should require ARB to provide sufficient opportunity for MJRPs to comment on the calculation of the SEF in advance of the compliance deadline. If there is an outstanding dispute between the ARB and the MJRP

regarding the calculation of the SEF, any compliance obligation that becomes due during the dispute should be tolled until the resolution of the dispute. [OP 23.01a--PC]

Response: PacifiCorp is currently the only multi-jurisdictional retail provider subject to Mandatory Reporting. PacifiCorp is required pursuant to sections 95111(a)-(d) to report the required information for ARB to calculate their system emission factor. ARB's calculation of PacifiCorp's system emission factor will be based on the equation in section 95111(b)(3) and Pacificorp's previous year's verified emissions data reported. ARB will provide the system emission factor, in advance of the next reporting deadline, for use by PacifiCorp in calculating GHG emissions attributed to their retail sales in California as well as their covered emissions for cap-and-trade purposes.

Given the tight compliance deadlines referenced by the commenter, and the fact that the calculation is based on data that is classified clearly by Pacificorp as required in the reporting template, ARB did not include a separate comment process regarding the calculation of the system emission factor.

D-27. Duplicative Requirements for Multi-jurisdictional Retail Providers (MJRPs)
Comment: Section 95111(a)(5) provides reporting requirements for imported electricity from asset-controlling suppliers. If this section were to be applied to MJRPs, it would impose duplicative reporting requirements with Section 95111(a)(6). ARB should specifically state in Section 95111(a)(5), that Section 95111(a)(5) does not apply to MJRPs.

Similarly, Section 95111(b)(3) would impose duplicative reporting requirements for MJRPs that are already required to report under Section 95111(b)(4). Therefore, Section 95111(b)(3) should state that Section 95111(b)(3) does not apply to MJRPs, except as provided in Section 95111(b)(4). [OP 23.01b--PC]

Response: Section 95111(a)(5) is not duplicative for MJRPs. MJRPs are permitted to claim BPA system power when they import it directly into California on a wholesale basis. ARB clarified that section 95111(b)(3) does not apply directly to MJRPs, except as referenced from section 95111(b)(4) for the necessary data and methodology for ARB's calculation of a system emission factor.

D-28. MJRP and Definition of CO_2e_{linked}
Comment: Section 95111(b)(4) does not provide a definition for CO_2e_{linked}. The following definition should be included in Section 95111(b)(4): "CO_2e_{linked} = Annual CO_2 equivalent mass emissions of imported electricity with compliance accountability in a reciprocal or linked jurisdiction, and therefore excluded from California compliance obligation (metric tonnes)." This definition is consistent with the language PacifiCorp previously proposed to ARB staff. [OP 23.01c--PC]

Response: ARB adopted a similar definition in section 95111(b)(4).

D-29. First Point of Receipt

Comment: The previous version of the MRR allowed importers to report unspecified imports by counterparty. Section 95111(a)(3) now requires importers of electricity from unspecified sources to separate power purchase transactions from unspecified sources by the first point of receipt and jurisdiction. In many cases, the new level of information is not available by power purchase transaction. In addition the new reporting requirements will be very burdensome and labor intensive to produce. PacifiCorp recommends deleting this requirement and allowing importers to aggregate unspecified imports by counterparty, as the previous version of the MRR allowed. The default emissions factor documented by ARB could then be assigned to the unspecified sources for the purpose of calculating the overall SEF. If ARB does not wish to delete the requirement, Section 95111(a)(3) should be amended to provide that the new informational requirements will be reported "when available."

In addition, Section 95111(a)(3)(C) would impose new requirements to report transmission losses. However, transmission loss information is often not available to importers. Therefore, Section 95111(a)(3)(C) should provide that reporters will report transmission loss information "when available." [OP 23.01d--PC]

Response: ARB modified section 95105(d) to clarify that NERC e-Tag data is the basis for determining megawatt-hours of imports, exports, and electricity wheeled through California. The first point of receipt for imports and wheels is provided in the same query, which is a simple task. Several reporting entities contended that reporting by counterparty under the current MRR was onerous. In sections 95111(b)(1) and (2), the calculations for GHG emissions that include transmission losses were simplified to require a two percent transmission loss factor when MWh are not reported as measured at the busbar. ARB believes that although these modifications do not incorporate the requested language changes, they do address the commenter's concerns.

D-30. Multi-jurisdictional Retail Providers (MJRPs)

Comment: Section 95111(a)(4) refers to partially-owned and fully-owned generation facilities. These terms are open to multiple interpretations, in particular whether "ownership" includes contractual arrangements with Qualified Facilities ("QFs"). PacifiCorp recommends that these terms be defined to specifically exclude contractual arrangements with QFs where the entity has no equity interest in the QF and are required under federal law to take the QF's output. [OP 23.01e—PC]

Response: ARB has reduced the information requirements for MJRPs who must register specified sources that participate in the Federal Energy Regulatory

Commission's PURPA Qualifying Facility program, pursuant to subsection 95111(d)(7).

D-31. Multi-jurisdictional Retail Providers (MJRPs)
Comment: Section 95111(d) would create additional reporting requirements for MJRPs. Specifically, Section 95111(d)(1) would require an MJRP to report associated GHG emissions with electricity transactions. However, this information is not always available, and Section 95111(d)(1) should provide that an MJRP will report the associated GHG emissions information "when available."

Furthermore, Section 95111(d)(6) requires MJRPs to claim as specified power all power purchased or taken from facilities or units in which they have operational control or an ownership share or written contract. Some of the power purchase contracts that an MJRP enters into are not from a specified facility, but instead originate from block energy purchases without attribution to any generation source. An MJRP should be able to claim these transactions as "unspecified" when the contract does not specify a unit or facility. Under North American Electric Reliability Corporation (NERC) rules, contracts are required for any transaction that is at least seven days in advance. Further, the use of contracts from unspecified sources is an industry standard practice and is used in control areas like PacifiCorp's, to ensure system reliability and load balance. To address this issue, PacifiCorp recommends adding the following language to Section 95111(d)(6): …operational control or an ownership share or written contract that designates output from a specific unit or facility.

Finally, Section 95111(d)(7) provides that an MJRP will provide supplier-specific ARB identification numbers to electric power entities that purchase electricity from the MJRP. Section 95111(d)(7) should be amended to only require an MJRP to provide the identification number "when the identification number is provided by the ARB." [OP 23.01f—PC]

Response: GHG emissions information will be available, since ARB will provide the emission factors for specified transactions, pursuant to section 95111(b)(2), and publish the default emission factor for unspecified sources in section 95111(b)(1). An MJRP is able to claim unspecified sources under the conditions stated in the comment. ARB has deleted the requirement for MJRPs to provide a supplier-specific ARB identification number.

D-32. MJRP: MRR and Cost of Implementation Fee Regulation Consistency
Comment: PacifiCorp respectfully requests that the ARB ensure that the Amended Regulation is consistent with the Assembly Bill 32 Administrative Fee Regulation ("Fee Regulation"). As ARB is aware, the Fee Regulation relies on the current MRR to inform the applicability and amount of any fees to be incurred by regulated entities. PacifiCorp representatives and ARB staff have worked cooperatively to understand the unique circumstances applicable to PacifiCorp as an MJRP and the potential impact of the Fee Regulation on PacifiCorp's retail customers. In particular, PacifiCorp and ARB staff discussed the potential

disconnect between the manner in which PacifiCorp reports the California share of system power-related emissions and the proposed operation of the Fee Regulation as applicable to retail and wholesale imports of electricity.
Under the current MRR, the Fee Regulation provides a reasonable solution for ensuring that PacifiCorp's retail customers continue to be served in a cost-effective manner and are not unduly burdened by the proposed Fee Regulation. As described in PacifiCorp's comments in the Fee Regulation proceeding, based on the current GHG MRR developed by ARB, PacifiCorp reports GHG emissions consistent with California's two percent (2%) share of system emissions, although the actual power flows physically serving the California electric demand primarily come proportionate share approach to emissions reporting is an administratively-efficient mechanism based upon PacifiCorp's long-standing cost allocation mechanism that has been agreed to by the various states' regulatory bodies and which is routinely reflected in California regulatory filings and cost structures. The Fee Regulation relies on the types and quantities of GHG emissions reported pursuant to the ARB's current GHG MRR as the basis for imposing a fee on individual entities, including electricity importers. See §§ 95204(g) and 95205(a).

Pursuant to § 95201(a)(4), the Fee Regulation is applicable to an MJRP on a limited basis, specifically stating that "[f]ees shall also be paid for each megawatt-hour of imported electricity reported pursuant to Sections 95111(b)(2)(B), 95111(b)(2)(C), and 95111(b)(3)(N) of the MRR if the electricity is from either unspecified sources or specified sources that combust natural gas, coal, petroleum coke, catalyst coke, refinery gas or other fossil fuels (except California diesel)." See § 95201(a)(4). In other words, the Fee Regulation applies only to each megawatt-hour of imported electricity from the MJRP's wholesale power sales.

PacifiCorp asks that ARB take necessary steps in this rulemaking to ensure that the Amended Regulations are applied in a manner that ensures consistency with the Fee Regulation and other applicable regulations. [OP 23.01h—PC]

Response: The AB 32 Cost of Implementation Fee Regulation (fee regulation) does not prescribe GHG emissions reporting protocols for mandatory reporting or set policy for the cap-and-trade program. Comments regarding the fee regulation are beyond the scope of the modifications made to the MRR. However, the Board is separately considering amendments to the fee regulation. As that process proceeds, ARB may identify additional reporting needs for consideration in the reporting tool.

E. Subarticle 2. Electricity Generation and Cogeneration – §95112

§95112. Electric Generation and Cogeneration

E-1. Change in Reporting Threshold for Cogeneration
Comment: Support the deletion of the cogeneration reporting category. This reporting requirement placed a significant administrative and cost burden on these public agencies, whose emissions were barely over the 2500 ton mark. [OP 19.03 - EMWD, OP 24.03 - BACWA, OP 27.03 - CWCCG, OP 32.03 – ACWA, C&T 562.03 – EMWD]

Response: ARB appreciates the commenters' support. However, to clarify, the cogeneration reporting category was not deleted in whole from the MRR. Instead, because of the changes in applicability, electricity generating and cogeneration units with emissions below 10,000 $MTCO_2e$ will no longer need to report under the MRR.

E-2. Fuel Cell EGU Emissions Reporting
Comment: Concur with the rule's exclusion of fuel cell emissions from mandatory reporting requirements. Several wastewater agencies currently operate fuel cells fueled by digester gas, and others are contemplating their installation as a way of generating clean renewable energy. [OP 19.04 - EMWD, OP 24.04 - BACWA, OP 27.04 - CWCCG, OP 32.04 – ACWA, C&T 562.04 – EMWD]

Response: ARB appreciates the commenters' support. Although fuel cell operators are not required to calculate emissions, other data including feedstock usage is required to be reported.

E-3. Bottoming Cycle Cogeneration Fuel Reporting
Comment: Additional language should specify that only fuel associated with bottoming cycle cogen supplemental firing and those subsequent emissions should be reported. The fuel input to and subsequent emissions from the manufacturing process have no bearing on the electricity production and should not be reported in the context of electricity production from a bottoming cycle facility that uses the waste heat from the manufacturing process as in input. [OP 08.01 – CSCME]

Response: Clarifications have been added to 95112(b) and (b)(8) to address the commenter's concerns. ARB will also specify this in reporting tool guidance. .

E-4. Identification Numbers
Comment: CEC and EIA numbers should be required for all facilities. [OP 07.07– PGE]

Response: CEC and EIA ID numbers will help facilitate data sharing and analyses among different agencies and for implementation of different programs. The suggested change has been incorporated.

E-5. Disposition of Steam

Comment: Onsite steam usage and offsite recipients should be reported. Btu meter standards are needed. [OP 07.08 – PGE]

Response: In the revised regulation, steam provided to a thermal host is always reported, but it may be reported differently depending on the way the facility boundary is drawn according to the "facility" definition. If the thermal host and the cogeneration unit are owned or operated by the same operator, the steam usage is reported as "thermal energy that is used by those on-site industrial processes or operations and heating or cooling applications" under section 95112(a)(5)(C). If the thermal host and the cogeneration unit are not a part of the same facility, as determined by the “facility” definition, the steam is reported as "thermal energy provided or sold to particular end-users" under section 95112(a)(5)(A). Meter accuracy requirements for any meters that are used for calculating emissions have been added to 95103(k).

E-6. Average Carbon Content and HHV

Comment: Section 95112(a)(5) Basic Information for EGUs – Under Section 95112, Electricity Generating Units (EGUs) are required to provide specified information in emission data reports. In Paragraph (a)(5), ARB is requiring that emission data reports include weighted average carbon content and high heat value by fuel type if that information is used to calculate CO_2 emissions and refers to 40 CFR §98.32(a)(2)(ii) for high heat value procedures. SMUD’s review of 40 CFR §98.32 finds no such subparagraphs or procedures for determining high heat value of fuels, so this appears to be an incorrect citation. [OP 35.04 – SMUD1]

Response: This citation has been corrected.

E-7. Bottoming Cycle Cogeneration Fuel Reporting

Comment: The Coalition for Sustainable Cement Manufacturing and Environment (CSCME) have emphasized the importance of distinguishing the fuel input to a manufacturing process that would occur regardless of whether there was any subsequent electricity production, from the fuel input that might occur to enhance the electrical production possible from the waste heat from the manufacturing process. The fuel input to the manufacturing process has no bearing on the electricity production and should not be reported in the context of electricity production from a bottoming cycle facility that uses the waste heat from the manufacturing process as in input. As we show below, both the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) have recognized this difference and reflected it in their decisions and regulation. For this reason we recommend that the proposed reporting requirements be

amended. In Section 95112, additional language should be added to specify that only the fuel associated with supplemental firing and related emissions should be reported for bottoming cycle cogeneration. We recommend the following changes. Modify section 95112(a)(3) as follows: (3) Fuel consumption by fuel type, reporting in units of mission standard cubic feet for gases, gallons for liquids, short tons for non-biomass solids, and bone dry short tons for biomass-derived solids. For a bottoming cycle cogeneration unit that uses waste heat from an industrial process, only fuel consumption by fuel type that is used for supplemental firing for electricity production should be included in this reporting, since fuel consumption for the industrial process that produces the waste heat is directly related to the industrial process and not to electricity production. [C&T 171.01 – CSCME]

Response: ARB has modified section 95112(b) and (b)(8) to address the commenter's concerns. ARB will also specify this in reporting tool guidance.

E-8. Bottoming Cycle Cogeneration Fuel Reporting
Comment: Modify section 95112(c) as follows: (c) CO_2 from Fossil Fuel Combustion. When calculating CO_2 emissions from fuel combustion, the operator who is subject to Subpart C or D of 40 CFR Part 98 must use a method in 40 CFR §98.33(a)(1) to §98.33(a)(4) as specified by fuel type in Section 95115 of this article. A bottoming cycle cogeneration unit shall not include the emissions associated with the industrial or commercial process, but rather, shall only include emissions associated with any supplemental firing that might occur. These changes are clearly supported by decisions of the CPUC and CEC. The California Public Utilities, Commission, in its Decision No. 09-06-051, p. 9 clearly drew the distinction between fuel input to the industrial process producing the waste heat used in the bottoming cycle process and fuel input for supplemental firing, finding that the only GHG emissions associated with electricity production from bottoming-cycle cogeneration result from any possible supplemental firing. The CEC, in developing standards for CHP that qualifies for sales to a utility under AB 1613 also recognized this distinction in its report "Guidelines for Certification of Combined Heat and Power Systems Pursuant to the Waste Heat and Carbon Emissions Reductions Act, Public Utilities Code, Section 2840 ET SEQ." For the above reasons, CSCME requests that the California Air Resources Board add clarifying language to its reporting requirements to make it clear that the only reportable fuel use and emissions for bottoming cycle cogeneration are those associated with such supplemental firing as may be used in the bottoming cycle application. [C&T 171.03 – CSCME]

Response: ARB has modified section 95112(b) and (b)(8) to address the commenter's concerns. ARB will also specify this in reporting tool guidance.

E-9. Bottoming Cycle Cogeneration Fuel Reporting
Comment: BOTTOM CYCLE CHP Comment : Reporting regulations for bottoming cycle CHP should reflect emissions associated only with supplemental

firing. The revised reporting regulations appropriately rely on total fuel consumption to calculate emissions for CHP facilities. However, in the prior set of reporting regulations, CARB inaccurately required bottoming cycle CHP facilities to count the emissions generated in the manufacturing process. The CPUC has since clarified that it is appropriate only to count emissions generated in supplemental firing when calculating emissions associated with a BC CHP facility (CPUC): We therefore modify D.07-08-009 to state that when calculating the EPS for bottoming-cycle cogeneration, the Conversion Method [which calculates the effective GHG emissions rate] shall not include the emissions associated with the industrial or commercial process, but rather, shall only include emissions associated with any supplemental firing that might occur. The revised regulations would benefit from a similar clarification: (b) Basic Information for Cogeneration Units. In addition to the information required by paragraph (a) of this section, the operator of a cogeneration unit must: (1) Indicate whether the unit is topping or bottoming cycle, and the prime mover technology; (2) Provide useful thermal output (mmBtu); (3) Where steam or heat is acquired from another facility for the generation of electricity, report the provider, the provider's ARB ID, and the amount of acquired steam or heat (mmBtu); (4) Where supplemental firing has been applied to support electricity generation or industrial output, report fuel consumption by fuel type using the units in paragraph (a)(3) of this section and indicate the purpose of the supplemental firing. For a bottoming cycle facility, report only emissions associated with supplemental firing. [C&T 18.01 – EPUC]

Response: ARB has modified section 95112(b) and (b)(8) to address the commenter's concerns. ARB will also specify this in reporting tool guidance.

E-10. Bottoming Cycle Cogeneration Fuel Reporting

Comment: CO_2 from Fossil Fuel Combustion. When calculating CO_2 emissions from fuel combustion, the operator who is subject to Subpart C or D of 40 CFR Part 98 must use a method in 40 CFR §98.33(a)(1) to §98.33(a)(4) as specified by fuel type in Section 95115 of this article. A bottoming cycle cogeneration unit shall not include the emissions associated with the industrial or commercial process, but rather, shall only include emissions associated with any supplemental firing that might occur. [C&T 18.02– EPUC]

Response: ARB has modified section 95112(b) and (b)(8) to address the commenter's concerns. ARB will also specify this in reporting tool guidance.

F. Subarticle 2. Petroleum Refineries and Hydrogen Production §95113 – §95114

§95113. Petroleum Refineries

F-1. Coke Drum Venting – Safety Concerns
Comment: Section 95113 – Petroleum Refineries, Coking Units/Coke Vent Drums. WSPA believes the source testing requirement for coking units and coke drum vents should not be required and instead recommend using the EPA default emission factor for CH_4 for the following reasons: (1) Safety: There are safety concerns associated with conducting top of the coke drum sampling due to potential exposure to high temperatures (>900F) and steam, creating a safety risk for source testing personnel. (2) Technical Source Testing Issues: Previous source testing conducted by the SCAQMD revealed that varying conditions during the coke drum venting process make it difficult to obtain accurate and reproducible flow measurements. This is because the stack flow rates vary, starting off high and tapering off as pressure in the drum is relieved.
Also, the duration of the venting cycle varies, ranging from a couple of minutes to as long as 20 minutes which creates a very narrow window to complete the source testing. Finally, given the exhaust gas is primarily steam, it is very difficult to make accurate methane measurements at close to 100% moisture. (3) Estimated CO_2 Emissions: Based on testing data conducted by the SCAQMD, total annual CO_2 equivalent emissions from a typical refinery's coke drum vents were estimated to be only 399 MT. This is an amount that we believe is not significant enough to warrant mandatory source testing requirements, especially given the above mentioned safety concerns. [OP 31.06 – WSPA]

F-2. Response: The use of a default emission factor for this small source appears to be warranted based on safety concerns. ARB agrees with the comment and has made this change.

F-3 Uncontrolled Blowdowns
Comment: Reporters should be allowed to report none if there are no uncontrolled blowdowns during the reporting year. [OP 31.17 – WSPA]

Response: ARB agrees; operators can simply enter a "zero" in the reporting tool when reporting uncontrolled blowdown emissions in such cases.

§95114. Hydrogen Production

F-4. U.S. EPA Changes
Comment: WSPA recommends ARB allow operators to use the same calculation method described in EPA Subpart P for emissions associated at hydrogen production plants. Subsection (b), section states when calculating CO_2 emissions from fuel combustion under Subpart C, as specified in 40 CFR 98.162(b)-(c), the operator must use a method in 40 CFR 98.33(a)(1) to

98.33(a)(4). WSPA recommends ARB revise this section by deleting the referenced citations of 98.162(b)-(c), as we understand in the EPA MRR technical revisions published in the Federal Register on 10/28/10, the 98.162(b) reference has been removed and 98.162(c) applies to non-H2 plant furnaces. ARB should include 98.162(a) as the referenced procedures for reporting H2 plant emissions. [OP 31.22 –WSPA]

Response: ARB understands that 40 CFR §98.162(b) has now been "reserved" in the U.S. EPA regulation. Because stationary combustion is still addressed in 40 CFR §98.162(c), as well as directly through section 95115 of the MRR, there is no impact from this change on reporting requirements and ARB declines to make the requested modification.

F-5 Sampling Frequency

Comment: Section 95114 requires operators of Hydrogen plants to use a "weighted average carbon" content from the results of one or more analyses for "month n for natural gas or from daily analysis for gaseous fuels and feed stocks other than natural gas." This sampling frequency exceeds the sampling requirements in the federal EPA MRR reporting requirements referenced in 40 CFR 98.163(b)(1), which state that daily sampling and analysis to determine carbon content and molecular weight is required, if the necessary equipment is in place to make such measurements. However, if such equipment is not in place, sampling and analysis on a weekly basis shall be conducted.
WSPA recommends ARB revise Section 95114(e)(1) and make the sampling frequency requirements consistent with federal 40 CFR 98.163(b)(1).OP 31.23 – WSPA]

Response: ARB believes the daily sampling requirement is important to ensure equitable treatment for at California's hydrogen plants, is important when fuels and feedstocks can vary significantly in carbon content, and should not represent a change from current GHG monitoring requirements at these plants in California. The MRR permits these daily samples to be combined into a weekly analysis for liquid and solid fuels/feedstocks. Flexibility has also been added to allow a monthly analysis for standardized fuels and feedstocks, as specified in Table 1 of Section 95115.

G. Subarticle 2. Stationary Fuel Combustion and Other Industrial Sources §95115 – §95120

§95115. Stationary Fuel Combustion Sources

G-1. Fuel Sampling for Biomass Fractions

Comment: Section 95115(e) of the reporting rule should be modified to permit fuel sampling in lieu of exhaust sampling for the determination of biogenic CO_2 emissions from combustion of biomass mixtures. [OP 10.02 – CSCME]

Response: In response to this comment, the regulation was modified with the inclusion of section 95115(e)(2), to allow fuel sampling under specified circumstances. Under these circumstances, the revision will provide data with quality equal to or better than data obtained using an exhaust sampling method.

G-2. Fuel Mixtures Containing Biomass

Comment: For determining the biogenic content of biomass mixtures, section 95115(e) of the reporting rule should be modified to accept fuel mixtures with fuels containing biomass, where the biomass content of this biomass-containing fuel is 5% or more (regardless of biomass content of the fuel mixture). [OP 10.03 – CSCME]

Response: The comment was included for completeness only. The original proposal presented to the Board in December 2010 addressed the concern raised in the comment, so there are no regulation changes necessary.

G-3. Weekly Fuel Sampling for Biogenic CO_2

Comment: Section 95115(e) of the regulation should be modified such that representative fuel sampling for determining biogenic CO_2 emissions from combustion of biomass mixtures requires weekly fuel sampling and monthly composites of weekly fuel samples. [OP 10.04 – CSCME]

Response: See Response to G-1. Under modified section 95115(e)(2) of the regulation, this sampling regime has been specified. In the case of municipal solid waste (MSW), the procedures specified in 40 CFR §98.33(e)(3) still apply (see 95115(e)(1)).

§§95116 to 95120. Other Industrial Sectors: Glass Production, Lime Manufacturing, Nitric Acid Production, Pulp and Paper Production, Iron and Steel Production

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G-4. Deviation from EPA Requirements for Glass Production

Comment: ARB did not provide sufficient justification to why it deviated from the U.S. EPA mandatory GHG reporting requirements for the glass production sector, and this deviation unnecessarily adds to the risks and burdens for the industry. [OP 28.01 – VG]

Response: The ARB regulation incorporated relatively minor deviations from U.S. EPA reporting requirements. These were primarily to require use of more accurate estimation methods for carbon-variable fuels, to add requirements for the collection of product data to support allowance allocation, and to ensure conservative substitution of missing data in a market program. ARB provided a summary and rationale for each section of the regulation under part VIII of the Staff Report. As explained in the Staff Report, some deviations from the U.S.

EPA rule were necessary to support California's cap-and-trade program requirements.

G-5. Eliminate Requirement to Report Packed or Sellable Glass Produced
Comment: Eliminate the requirement in to report the annual quantity of packed or sellable glass produced, as specified in section 95116(d)(1) of the proposed reporting rule. These data are no longer required to support benchmarking activities for the glass production sector, as section 95891's Table 9-1 of the cap-and-trade regulation, proposes instead to use "glass pulled." Providing the quantity of packed or sellable glass produced is opposed because the information is considered proprietary and may constitute trade secret information. [OP 28.02 – VG]

Response: In response to this comment and consistent with program needs, the regulation was modified to include reporting of glass pulled from the melting furnace and the requirement to report glass or fiberglass produced was removed.

G-6. Typo in Section 95118(b).
Comment: Section 95118(b) incorrectly referenced 95118(d) instead of 95118(c). [OP 41.05 – SIMPLOT]

Response: ARB appreciates the comment and has corrected the reference.

H. Subarticle 2. Fuel and Carbon Dioxide Suppliers §95121 – §95123

§95121. Supppliers of Transportation Fuels

H-1. Coordination with Federal RFS and LCFS
Comment: This section details reporting requirements for suppliers of transportation fuels. Because there is tremendous similarity and overlap with the data and the data needs required by the LCFS and federal RFS (Renewable Fuel Standard), it is important that ARB provide the required consistency and guidance to ensure supplier compliance with all three programs. [OP 31.05 – WSPA]

Response: ARB has worked to ensure consistency where inventory and control program needs can still be met. For example, reporting by biomass transportation fuel producers was removed from the MRR when it became clear sufficient information would be available from the Low Carbon Fuel Standard Program. As such, ARB believes it has addressed the commenter's concern.

H-2. Clarification of Component Reporting
Comment: WSPA recommends ARB add clarification such that the requirement to report fuel components [per Section 95121 (a)-(b)], relates to CARBOB and ethanol and not the various individual 13 hydrocarbon streams that may be

included within the base gasoline used to manufacture CARBOB. [OP 31.24 – WSPA]

Response: ARB has made the requested clarification.

H-3. Clarification of Component Reporting

Comment: WSPA would like to discuss with ARB Section 95121(c), to better understand and clarify the conditions by which fuel position holders are either subject to or exempt from the calibration and measurement accuracy requirements in 40 CFR 98.3.(i). WSPA currently believes that 40 CFR 98.3(i) is not applicable to any position holder, enterer, refiner or biomass-derived fuel producer. [OP 31.25 – WSPA]

Response: ARB has included in the measurement accuracy requirements of section 95130(k) language that is likely to exempt most meters used by position holders and refiners, because they are financial transaction meters. Except where these meters are owned by subsidiaries or affiliates of the same company, reporters under section 95121 would be exempted under section 95103(k)(7).

H-4. Regulation of Railroads

Comment: Railroads understand that ARB modeled fuels reporting after the California Board of Equalization (BOE) requirements. This places differing burdens on transportation companies dependent upon where they receive their fuel. This will inhibit the competitiveness of some companies as compared to others in the market. The logical point of regulation is the fuel producer and fuel importer. [OP 34.01 – CRI]

Response: The point of regulation was selected by ARB after numerous consultations with stakeholders as the location that will provide the most accuracy with the least additional burden on reporters. As the commenter noted, fuels data is already collected by the BOE at the position holder and enterer. The railroads are in some instances terminal operators and position holders and would be required to report under this section. ARB believes that it has designed the MRR such that there is not a competitive disadvantage, because while the railroads will directly pay any compliance cost, truckers will also pay the same compliance cost passed along by their fuel suppliers. ARB does not believe the fuel producer will work as a point of regulation because the final disposition of the fuel is not always known, so out-of-state emissions would also be captured. Additionally, it was difficult to account for transmix (fuel mixtures) that are not combusted, and metering accuracy provisions become more complex and problematic at refineries. For these reasons the point of regulation for fuel suppliers has been left unchanged.

§95122. Suppliers of Natural Gas, Natrual Gas Liquids, and Liquefied Petroleum Gas

H-5. Emissions Calculations from Outside Pipeline Quality Natural Gas
Comment: Section 95122 (b)(2) requires local distribution companies ("LDCs") to estimate CO_2 emissions for natural gas that does not meet pipeline quality standards as defined in the regulations "using the Tier 3 methodologies specified in 40 CFR §98.33(a)(3)(iii) with monthly carbon content samples used to calculate the annual carbon content as specified in 40 CFR §98.33(a)(2)(ii)(A)." PG&E suggests that this language be modified to allow small quantities of California production that fall outside the pipeline quality definition to instead calculate CO_2 emissions using the default emission factor from Table NN-1 of 40 CFR Part 98 in contrast to monthly carbon content sampling. Small quantities will not materially affect the accuracy of the GHG calculation, and the need for monthly sampling could cause this gas to become significantly more expensive. In the last year, PG&E accepted 6,441,655 MMBtu of gas that did not meet the specification for pipeline quality gas. This gas came from 33 sources ranging in volume from 830 Dth to just over 2 million Dth, representing just 0.74% of the gas supplied to the PG&E system. If there were a 20% difference between the default emission factor and the factor calculated using the carbon content, the total difference would be only 0.15%. Therefore, sources providing less than 3 million Dth per year should be allowed to use the default emission factor for calculating CO_2 emissions and be exempt from the monthly carbon content calculation requirement. [OP 07.09 – PGE]

Response: ARB has modified section 92122(b)(5) to allow LDCs to use default emission factors for up to 3% of their total gas volume outside the HHV range of 970-1100.

H-6. Biomass-Derived Fuel Reporting by Local Distribution Companies
Comment: Several subsections within section 95122 require LDCs to report the end-use CO_2 emissions from the combustion or oxidation of biomass-derived fuels (see subsections (a)(2), (b)(4), (d)(2)(C), and (d)(2)(F)). However, unless the biofuel were actually purchased by an LDC, there is no way for an LDC to know the volume of these biofuels on its distribution system. Staff's ISOR notes that a certification program similar to the Renewable Energy Certificate program under the Renewable Electricity Standard regulation would be an ideal solution to track emissions from biomass-derived fuels. However, even such a certification program would only track that fuel when ownership of it is transferred or sold. In the case of an LDC such as PG&E that may distribute pipeline-quality biomethane on its system, PG&E would have no way of knowing, for example, if biomethane were put into a pipeline in Texas and delivered to a facility in Oregon, nor would it know if that biomethane were delivered to a non-core customer in its own service territory. Therefore, PG&E recommends that this

section be clarified to state that LDCs are only required to report the emissions from biomass-derived fuels purchased by the LDC. [OP 07.10 – PGE]

Response: ARB has modified section 95122 to clarify that LDCs are only required to report biomass-derived fuels that are purchased on behalf of their customers, and not fuel that is directly purchased by the customer and only transported by the LDC.

H-7. Calculation of LDC's Emissions

Comment: Section 95122 (b)(2) sets forth the following equation for natural gas LDCs to calculate total CO_2 emissions at the state border or city gate:

$$CO_2 = \Sigma CO_2 i - \Sigma CO_2 l$$

Where:

CO_2 = Total emissions

$CO_2 i$ = Emissions from natural gas received at the state border or city gate

$CO_2 l$ = Emissions from storage and direct deliveries from producers

For the purpose of this section, a public utility gas corporation may use the California border as the city gate. ARB's above equation differs from the EPA's equation for the total CO_2 emissions from an LDC's supply of natural gas to end-users (as specified in Equation NN-6 from 40 CFR 98, Subpart NN) in that ARB does not require natural gas LDCs to subtract the emissions associated with gas delivered to end-users that use at least 460,000 Mscf per year (i.e. end-users who will be directly regulated in California's cap-and-trade program), gas delivered to transmission pipelines or other LDCs, or gas that is liquefied. Specifically, Equation NN-6 reads:

$$CO_2 = \Sigma CO_2 i - \Sigma CO_2 j - \Sigma CO_2 k - \Sigma CO_2 l \quad \text{(Eq. NN-6)}$$

Where:

CO_2 = Annual CO_2 mass emissions that would result from the combustion or oxidation of natural gas delivered to LDC customers not covered in paragraph (b)(2) of this section (metric tons).

$CO_2 i$ = Annual CO_2 mass emissions that would result from the combustion or oxidation of natural gas received at the city gate as calculated in paragraph (a)(1) or (a)(2) of this section (metric tons).

$CO_2 j$ = Annual CO_2 mass emissions that would result from the combustion or oxidation of natural gas delivered to transmission pipelines or other LDCs as calculated in paragraph (b)(1) of this section (metric tons).

$CO_2 k$ = Annual CO_2 mass emissions that would result from the combustion or oxidation of natural gas received by end-users that receive a supply equal to or greater than 460,000 Mscf per year as calculated in paragraph (b)(2) of this section (metric tons).

CO_2I = Annual CO_2 mass emissions that would result from the combustion or oxidation of natural gas received by the LDC and liquefied and/or stored but not used for deliveries within the reported year as calculated in paragraph (b)(3) of this section (metric tons).

PG&E understands that ARB intends to subtract directly regulated natural gas end-users' emissions from the gas received at the state border or city gate for PG&E via the mandatory reporting tool after PG&E's data has been submitted. However, PG&E still needs to identify those emissions as well as the other emissions specified in Equation NN-6 to ensure that its cap-and-trade compliance costs are not passed on to directly regulated end users. For example, PG&E has multiple deliveries to Southwest Gas Taps, multiple full time and emergency connections to SoCal Gas Company, direct deliveries to SoCal Gas Company billing meters, occasional flows to Chevron through a pipeline where they have a partial ownership interest, and deliveries to interstate pipelines operating in California. Because of the complex transactions involved in fully accounting for PG&E's compliance obligation, PG&E recommends that ARB allow LDCs to use Equation NN-6. Since PG&E will use Equation NN-6 for federal reporting purposes, using the same calculation for California reporting will support full reconciliation between EPA and ARB reporting, as well as reconciliation between ARB and PG&E data, as PG&E and ARB data on regulated end-users' emissions can be cross referenced after the data is submitted.

In addition, to be consistent with ARB's exemption of pipeline-quality biomethane from a cap-and-trade compliance obligation in section 95852.2 (e) of the proposed cap-and-trade regulation, PG&E recommends that the emissions from biomethane purchased by a natural gas LDC be subtracted from its total CO_2 emissions at the state border or city gate . In the future, as ARB develops a process for LDCs to track the end-use CO_2 emissions from biomethane on their distribution systems, these emissions should also be subtracted from an LDC's total CO_2 emissions at the state border or city gate.

If ARB does allow LDCs to use Equation NN-6, PG&E suggests that the timeline for reporting be adjusted such that LDCs would provide a preliminary GHG emissions report to ARB by April 1. The ARB would then respond to LDCs by May 1 and provide a list of directly regulated entities with their LDC account numbers and fuel use. LDCs would then cross reference the fuel use and make sure that the directly regulated entities in their service territories are subtracted out of the LDC's compliance obligation. LDCs would then send a final report to ARB by June 1. This process allows the period between May 1 and June 1 to be used to reconcile differences between the ARB and LDC lists of directly regulated entities. [OP 07.11 – PGE]

Response: The regulation has been modified to allow local distribution companies to use 40 CFR Part 98 Equation NN-6, except for the subtraction of

deliveries to end-users that equal or exceed 460,000 Mscf, which will be accounted for by ARB. Verified biomethane will not be included in the calculation for assessing the LDCs compliance obligation. LDCs will report their emissions by the reporting deadline, and then ARB will provide a preliminary estimate of the LDC's total emissions based on unverified data. After the completion of verification, a final value will be provided to the utility along with an aggregated list of customers and fuel volumes.

H-8. Interstate Pipeline Reporting Requirements

Comment: Section 95101(c) broadly applies to fuel "suppliers," who "import and/or deliver" fuels in California. Kern River submits that the heading "supplier" may be inconsistent with delivery and should not apply to "operators of interstate pipeline delivering natural gas, as described in section 95122." See §95101(c)(5). If the Air Resources Board's intent is to apply reporting requirements to suppliers of natural gas, the requirements should only apply to interstate natural gas pipelines that also import and export as defined by 40 CFR 98, not to interstate natural gas pipelines who transport natural gas.

The definition of "supplier" is critical in determining the applicability of section 95122. It could be interpreted that this section would apply to interstate natural gas pipelines, even if they do not meet the EPA definition of "supplier" given the text of 95122(c)(5). However, section 95122 requires compliance with 40 CFR 98 Subpart NN which is not applicable to facilities that do not meet the EPA's definition of "supplier," this includes all interstate natural gas pipelines. Text clarifying that this section maintains the same applicability as 40 CFR 98 Subpart NN should be included to maintain consistency between the two regulations. [OP 40.01 – KRGTC]

Response: ARB intended the definition of supplier to capture all suppliers of natural gas in California including interstate pipelines who deliver to customers in California. However, there are minimal requirement for interstate pipeline reporting, limited to those found in 95122(d)(3) which just includes information on deliveries to customers.

H-9. Clarification of Interstate Pipeline End Users

Comment: The proposed regulations define "end user" in the context of natural gas consumption as the point at which natural gas is delivered for consumption. The practical difficulties in applying the requirements include the fact that interstate natural gas pipelines are not aware of when or where the natural gas transported on their interstate system is consumed. When gas is delivered to a meter station, operators often take the gas from the meter station and transport the gas to other end users. Therefore interstate pipelines are unable to report end user consumption of gas transported on the interstate pipeline system. The Board should clarify the use of the term "end user" as used in the proposed regulations. [OP 40.02 – KRGTC]

Response: ARB has changed the term “end user” to” customer” for interstate pipelines so only the first receiver of the natural gas needs to be reported.

H-10. Subpart NN Should Only Apply to LDCs

Comment: Section 95122(d)(3) specifically calls out “non-utility interstate pipelines” to report customer information including monthly volumes and weighted average high heat value for each end user and wholesale customer. This is not consistent with the U.S. EPA’s Subpart NN regulations which only requires local distribution companies (LDCs) to report such information. Text clarifying that this section maintains the same applicability as 40 CFR 98 Subpart NN should be included to maintain consistency between the two regulations. [OP 40.03 – KRGTC]

Response: See Response to H-8.

§95123. Suppliers of Carbon Dioxide

H-11. CO_2 Supplier Missing Data

Comment: Section (b)(1)(A through D), describes the missing data substitution procedures required for suppliers of CO_2. As described in the missing data provisions in Sections 95112-115 and 95129 above, WSPA recommends ARB include in this section language that operators have the ability to utilize alternative calculation methods to develop missing data, such as allowing the use of the EPA provision described in Subpart PP. If alternative options cannot be utilized, only then should operators be required to follow the missing data provisions described in subparts A through D.

Response: As described in Section II.C. of the Staff Report, ARB found that the missing data provisions of 40 CFR Part 98 are not sufficient to support a cap-and-trade program, where there may be very high financial incentives to under-report emissions. Because MRR data will be used directly to support the cap-and-trade regulation, provisions were developed for conservative missing data substitution that are similar to such provisions in other market programs, such as the Acid Rain Program. The less stringent missing data provisions of 40 CFR Part 98 will apply to 2011 data reported in 2012, but the modified MRR provisions apply beginning with the 2013 report.

I. Subarticle 3. Substitution for Missing Data – §95129

§95129 Substitution for Missing Data Used to Calculate Emissions from Stationary Combustion and CEMS Sources

I-1. Missing Data Period

Comment: Request that ARB change section 95129(b) of the reporting regulation to indicate that missing data procedures apply only when units combust fuel.

Section 95129(b) of the draft revised AB32 MR rules requires that the missing data provisions in 40 CFR Part §75.31 to 75.37 be used for units that report under Tier 4 (using CEMS). However, the reference to circumstances when missing data provisions should be applied (namely whenever the unit combusts fuel) is missing, because that statement is found in 75.30(a). Therefore, we request that §95129(b) be modified as follows:

Missing Data Substitution Procedures for Other Units Equipped with CEMS. The operator of a stationary combustion unit who monitors and reports emissions and heat input data for that unit under section 95115 of this article using Tier 4 of Subpart C (40 CFR §98.33(a)(4)) must follow the applicable missing data substitution procedures in 40 CFR Part §75.30 to 75.37 (revised as of July 1, 2009) whenever the unit combusts any fuel. [OP 11.01 – CSCME]

Response: The missing data procedures apply only when the units combust fuels. Although section 95129(b) does not explicitly reference 40 CFR Part 75.30(a), its application limited to time periods during which fuels are combusted is required through the referenced 40 CFR Part 75 rule paragraphs, which are tied to the Part 75 definitions (in 40 CFR Part §72.2). The definition of "unit operating hour" in 40 CFR Part 72.2 is "a clock hour during which a unit combusts any fuel…"; and the definition for "quality-assured monitor operating hour" is limited to "unit operating hour." By definition, periods when no fuels are burned are not considered missing data periods under the regulation.

I-2. Missing Data Substitution Stringency

Comment: The missing data substitution procedure requiring the maximum capacity of the system to be used for each missing value when the analytical data capture rate is less than 80 percent will result in excess reporting of emissions. The missing data substitution procedures should be the same as the ones used in the federal rule and require the use of the most accurate data. [OP 41.06 – SIMPLOT]

Response: At high data capture rates, California's missing data substitution procedure is consistent with U.S. EPA's procedure and is not likely to result in significant over-reporting of emissions. However, U.S. EPA's missing data substitution procedures are insufficient for a market-based program, where there may be very high financial incentives to under-report emissions. More conservative missing data substitution procedures are necessary at lower data capture rates to ensure the quality and integrity of data for a market-based program. These more stringent procedures encourage compliance, provide a strong incentive to maintain accurate and operational measurement systems, and encourage reporters to follow a robust sampling regime.

I-3. Missing Data Substitution Options

Comment: Section 95129(d), specifically states that if a portion of the fuel consumption data at a facility level does not meet the accuracy requirements, the

operator must use either Sections 95129(d)(1) “Load Ranges” or 95129(d)(2) “Without Load Ranges,” to calculate missing fuel flow data. WSPA recommends ARB clarify in Section 95129(d), that an operator has the option of calculating facility level fuel flow rate missing data by using either 95129 (d)(1), or 95129 (d)(2), *or* some other alternative measurement option such as utilizing flow meters located either upstream or downstream of the failed flow meter or other acceptable method. [OP 31.04, 31.19a, – WSPA]

Response: ARB has modified section 95129(d) to clarify the range of options available to reporters in missing data substitution. Reporters may use any of the three applicable procedures in section 95129(d)(1)-(3) provided that they meet the eligibility criteria for the procedure. This modification also addresses other rule sections in Subarticle 2 that refer to section 95129. See also Response to I-1.

I-4. Clarifications Related to Thermal Output

Comment: WSPA also recommends ARB clarify how “thermal output” is defined. Specifically, would this be defined if the source’s primary function is steam production or for sources that generate heat used in a manufacturing process, or is this term more relevant to electrical generating facilities only? [OP 31.19b – WSPA]

Response: In the context of section 95129(d), “thermal output” refers to any thermal energy produced by fuel combustion equipment for which the operator can establish load ranges. In section 95102, thermal energy is defined as “thermal output produced by a combustion source used directly as part of a manufacturing process, industrial/commercial process, or heating/cooling application, but not used to produce electricity.” In section 95129, thermal output is not limited to steam and can include heat for the manufacturing process. The term is not limited to electrical generating facilities.

I-5. Interim Fuel Analytical Data Collection Procedure Threshold

Comment: While WSPA supports the equipment breakdown procedures described in Section 95129(h), we recommend ARB revise subpart (1)(A), and revise the >20% trigger threshold to >10%. WSPA believes a >10% trigger threshold is more appropriate as it would give operators the ability to petition the Executive Officer to use interim monitoring procedures that will result in more accurate data, rather than the alternative data substitution method requiring the use of the highest data on record. Without such change, operators that have a data loss rate of less than 20% would have no choice but to substitute using the highest data recorded. This would artificially increase the amount of emissions reported. Similarly, those operators who have a breakdown resulting in a data loss greater than 20% would have the option to petition the Board to develop interim data substitution procedures and not be forced to substitute missing data with the highest recorded values. This approach is superior because interim methodologies will result in more accurate data. In addition, WSPA recommends

ARB should incorporate similar equipment breakdown condition options for the missing data provisions in Sections 95113, 95114, 95115, and 95129. [OP 31.21–WSPA]

Response: ARB has incorporated the suggested modification for the reasons suggested by the commenter and to avoid a perverse incentive to miss more data between the 10% and 20% data capture rates. However, ARB does not agree that similar provisions are appropriate for each process emissions type in the other sections cited by the commenter. The interim data collection procedure should be used judiciously, even for combustion emissions.

I-6. Fuel Consumption Without Load Ranges

Comment: Sections 95129(d)(2)(A) and (B) describe the procedures required for calculating fuel consumption data in the absence of load range data for either single or multiple fuels. The requirements for calculating missing data are based on the levels of data capture of 100% to 95%, 95% to 90% and 80% to 90% and below 80% (if below 80%, non-conformity occurs and an operator must use highest fuel data). WSPA is concerned that the missing data calculation procedure is limited to only "process data" that are routinely measured and recorded at the unit. This interpretation would limit other alternative methods that might be available, such as fuel flow meters located upstream of the unit. Use of these alternative methods could be used to calculate missing fuel consumption data, in lieu of having to utilize the more complex process data procedures. WSPA recommends ARB include: "flow rate data" in Section 95129(d)(2)(A), as follows: Section 95129(d)(2)(A): "1. If the fuel consumption data capture rate is equal to or greater than 95.0 percent during the data year, the operator must develop an estimate based on available process **or flow rate** data that are routinely measured and recorded at the unit…" Additionally, WSPA recommends including the "flow rate data" reference in Section 95129(d)(3), Alternate Missing Data Procedures for Fuel Consumption Data, as follows:
"(3) Alternate Missing Data Procedures for Fuel Consumption Data – This paragraph applies to fuel combusting units that cannot use the missing data procedures in paragraphs (d)(1) or (d)(2). If fuel consumption...the operator may estimate the missing unit-level fuel consumption data using available process or flow rate data that are routinely measured at the facility (e.g., electrical load, steam production, operating hours or other fuel flow rate meters)." Because the missing data provisions are based on 40 CFR 75, WSPA recommends that the look back period for missing data with data capture rates between 95% to 80% in Section 95129(d)(2) be consistent with 40 CFR 75, which requires the look back period to be 2160 hours. This will provide a consistent method of determining missing data substitution values between 40 CFR 75 and Section 95129(d)(2). [OP 31.20 – WSPA]

Response: ARB has modified section 95129(d) to enumerate the various options available to facility operators when fuel meters malfunction and to make clear that the missing data procedures are only required if the total facility fuel

consumption is not completely accounted for during periods of operation. Operators may estimate emissions using upstream or downstream meters, and strap-on meters may be used as an alternative for interim fuel measurement. In addition, ARB notes that missing data substitution is not limited only to process data. Reporters may use any of the three applicable procedures in 95129(d)(1)-(3) provided that they meet the eligibility criteria for the procedure.

J. Subarticle 4. Requirements for Verification of Greenhouse Gas Emissions Data Reports and Requirements Applicable to Emissions Data Verifiers; Requirements for Accreditation of Emissions Data and Offset Project Data Report Verifiers §95130 – §95133

J-1. Air Districts

Comment: CAPCOA believes that the proposed Cap and Trade regulation regards local air districts as if they were profit driven businesses, not regulatory partners. CAPCOA is concerned that there are many restrictions written into the draft regulation that (a) disqualify local air district participation as verifiers for offsets, and (b) place limitations on the functions that local air districts can provide for the program's benefit- will lead to inefficiencies in resource allocations, duplication, added cost, and delays to implementation. [OP 09.01 – CAPCOA]

Response: This comment is inapplicable to the MRR and is more appropriate for the cap-and-trade rulemaking. It does not address any modifications made to, or request any further modifications to, the MRR. -

J-2. Air Districts

Comment: CAPCOA would like to have rule language amended [95979(g)] to clarify requirements for local air districts regarding what activities present a COI for offset verification. [OP 09.03 – CAPCOA]

Response: This comment is inapplicable to the MRR and is more appropriate for the cap-and-trade rulemaking. It does not address any modifications made to, or request any further modifications to, the MRR.

J-3. Offset Protocols

Comment: CAPCOA can help fill the need for technically strong offset protocols. In the past, several local air district proposals developed for voluntary purposes did not get adequate review and attention from CARB staff. CARB staff recently stated that they would not have time to review protocols developed by air districts. CAPCOA recommends that a process be established to bring local air districts, CARB, and other parties together to develop a list of protocols that would be worthwhile to explore developing. [OP 09.32 CAPCOA]

Response: This comment is inapplicable to the MRR and is more appropriate for the cap-and-trade rulemaking. It does not address any modifications made to, or request any further modifications to, the MRR.

J-4. Offset Protocols

Comment: SCAQMD and other air districts have expertise and resources that can assist CARB in developing additional technically strong offset protocols. There should be a process to identify needed protocols and a commitment from CARB for substantive and timely review of draft protocols. *Add: BE IT FURTHER RESOLVED that the Board directs the Executive Officer to meet with local air districts and other stakeholders in the next three months to identify protocols that will be evaluated for development by air districts. The Executive Officer will provide timely technical review of draft protocols, take the protocols through the public process, and bring multiple protocols to the Board for consideration as soon as practicable.* [OP 22.02- SCAQMD, C&T Bd 04, SCAQMD]

Response: This comment is inapplicable to the MRR and is more appropriate for the cap-and-trade rulemaking. It does not address any modifications made to, or request any further modifications to, the MRR.

J-5. Offset Protocols

Comment: Multiple Functions: The draft regulation specifically prohibits local air districts from performing multiple functions related to the cap on GHG emissions compliance program. SCAQMD have staff resources and expertise that can help ensure successful implementation of the program and other stationary source programs under AB32. Commenter requests the ability to perform multiple functions in the cap and trade program, including holding compliance instruments, verification of emission reports and offsets, and commissioning and/or overseeing offset projects, and potentially running a registry for GHG offsets. Includes suggested draft language for the cap-and-trade-rule. [OP 22.03- SCAQMD, C&T Bd 04- SCAQMD, C&T 636.02- SCAQMD]

Response: This comment is inapplicable to the MRR and is more appropriate for the cap-and-trade rulemaking. It does not address any modifications made to, or request any further modifications to, the MRR.

§95130 Requirements for Verification of Emissions Data Reports

J-6. Annual Verification

Comment: [95130(a)(1)] Full verification should not be required for both 2011 and 2012 data years. Section 95130(a)(1) requires full verification in 2012 for the 2011 data year and again in 2013 for the 2012 data year (for entities covered under the cap-and-trade regulation). Full verification is an expensive and time-consuming process – particularly the site visits – and should not be required for two consecutive years. Entities that have obtained full verification under the

current provisions of the MRR within the last two years should not be required to obtain full verification again in 2011. Section 95130(a)(1)(A) should be revised as follows: "The emissions data report is for the 2011 data year, and the reporting entity has not obtained full verification of data reports for either the 2009 or 2010 data years". [OP 06.16- SCPPA, OP 2101 – RRI]

Response: Full verification is required in 2012 for the 2011 data year per section 95130(a)(1)(A) to support the allocation auction for the cap-and-trade program which is based on 2011 data. Full verification is also required for the first year that verification is required in each compliance period. Due to a change in the timing of the first compliance period, a full verification is not required in 2012 and 2013, but rather 2012 and 2014. Given the need to conduct full verification for the cap-and-trade program, ARB declines to make the requested modification.

J-7. Annual Verification

Comment: [Section 95130(a)] Utilities do not believe that a reporting entity who had a full verification in their first year it was required of the 3 year cycle (data year 2009), should be required to have a full verification in 2011. Redding's 3 year contract specifies a full verification must be performed in year one only, per the current CARB reporting regulations. If Redding were required to perform an additional full verification for its 2011 data year, Redding would be obligated to reopen its existing consultant verification contract and would see an increase in verification costs of up to 20% above Redding's currently budgeted costs. The Utilities offer this language for consideration. *The emissions data report is for the 2011 data year and the reporting entity did not submit a full verification report for the 2009 or 2010 data year*. [OP 29.05- RMTUD]

Response: See Response to J-6.

J-8. Clarification of Six Consecutive Years of Verification Services

Comment: [Section 95130(a)(2)] The commenter proposes ARB clarify language regarding six consecutive years of verification by the same verification body. [OP 37.03- RMA]

Response: ARB modified the language in section 95130(a)(2) in the second 15-day modification. The two sentences were separated to clarify that any break in consecutive years of verification services requires the reporting entity to wait at least three years before re-contracting with the previous verification body or verifier(s).

§95131 Requirements for Verification Services

J-9. Site Visits

Comment: The military would like to have the certified verifier who visits [section 95131(b)(3)] their installations to have an approved health and safety plan to

ensure that verifiers observe basic safety requirements during their visits. [OP 16.03 DOD]

Response: ARB has designed the MRR such that the reporting entity that contracts with the verification body for verification services can require (via the contract for services or through other means) the verification body to have an approved health and safety plan before providing verification services. The reporting entity can also specify what items they would like in the "approved health and safety plan." As such, ARB believes the requested modification is unnecessary.

J-10. Re-verification and Assigned Emissions Level Comment Timeframes
Comment: Time periods in section 95131 should be adjusted. Section 95131(c)(5)(B) provides a reporting entity only five days to comment on an assigned emissions level calculated by the Executive Officer. Given the crucial importance of the assigned emissions level under the cap-and-trade regulation, this period is too short to allow for sufficient review and comment. Ten working days should be allowed, in line with other provisions in section 95131, for example, subsections (c)(4), (f), and (g). Section 95131(e) allows a reporting entity only 90 days to have an emissions data report re-verified by a different verification body. This is not enough time for entities with strict procurement guidelines (such as publicly-owned utilities) to select a new verifier and to go through the contracting process and it does not allow the verifier sufficient time to re-verify the report. A period of at least 120 days should be allowed plus a 30-day extension if necessary. [OP 06.17- SCPPA]

Response: If a reporting entity receives an adverse verification statement or does not receive a verification statement by the required deadline in section 95131(c)(5) the Executive Officer will review the emissions data and assign the reporting entity's emissions level. The five-day time period provided in the 45-day modification version of the regulation to comment on an assigned emissions level calculated by the Executive Officer has been removed from the final regulation in conjunction with the prompt timeframe required by the cap-and-trade program. The timeframes in assigning emissions and for re-verification of emissions data reports are driven by the compliance deadlines in the cap-and-trade program. Because the MRR verification deadlines are designed to provide verified data within the specific deadlines of the cap-and-trade programs, additional time cannot be added to section 95131(e).

J-11. Verifying Biomass-derived Fuels
Comment: [Section 95131(i)] Facilities without a cap-and trade-compliance obligation should not be subject to third-party verification requirements. The commenter believes that the primary purpose of the rigorous reporting and verification is to support the cap-and-trade program and that facilities outside the cap warrant a different set of reporting procedures that still provides information

but is less costly. [OP 19.02- EMWD, OP 24.02-BACWA , OP 27.02-CWCCG, OP 32.02-ACWA.]

Response: Verification is required [section 95131(i)] because biomass-derived fuels are not automatically exempt from a compliance obligation under the cap-and-trade regulation. Biomass-derived fuels are only exempt from a compliance obligation after a verifier has determined that the fuels meet all the requirements in both the MRR and the cap-and-trade regulation. Verification is required because there is no established system to track biomass-derived fuels. In the case of biomethane, a reporter claiming biomass-derived emissions may not actually be combusting the fuel they bought from out of state. Because the emissions from these fuels are exempt from being subject to an obligation, ARB believes there needs to be a way to ensure the purchases of such fuels did occur from an actual biomass-derived fuel producing facility and that there is no double crediting or selling of these fuels from the point of production to the point of combustion. These requirements are needed to ensure all claims of emissions from biomass-derived fuels are accurate.

J-12. Verifying Biomass-derived Fuels

Comment: The CO_2e emissions from biomass plants will not be subject to the compliance obligation if certain verifiable criteria are met. The proposed regulation section 95131(i) states that if the fuel is not certified by an accredited certifier of biomass-derived fuels, the verification team shall examine the fuel contracts to determine if the fuel being provided under a contract dated after January 1, 2010 is only for the amount of fuel that is associated with an increase in the biomass-based fuel producer's capacity [section 95131(i)(2)(A)(2)]. CARB still must define the qualifications of an "accredited certifier of biomass-derived fuels. [C&T 711, CE]

Response: ARB included the reference to certifier of biomass-derived fuel to signal ARB's intent to create a program to accurately track biomass-derived fuels. As explained in the Staff Report, the program is not in place, but will be established as soon as practical. Once a certification program has been created, the requirements for accreditation of a biomass-derived fuel certifier will be included and defined. Until a certification program is established, the verification requirements for biomass-derived fuels remain in place.

J-13. Verifying Biomass-derived Fuels

Comment: Upstream verification of biofuel suppliers needs to be simplified and streamlined so as to avoid duplicative verification efforts. And there are so many restrictions on the verification of biofuels that it may actually discourage the use of biogas to help reduce fossil greenhouse emissions. [C&T T 08-LADWP]

Response: ARB has modified section 95131(i) to streamline verification of biomass-derived fuels in the absence of a biomass-derived fuel certification program. This includes modification of the verification requirements to ensure site

visits do not need to occur at all upstream entities in the chain of custody of the biomass-derived fuels delivered to the reporting entity and changing the criteria for a full verification to allow more flexibility and verifier discretion . ARB believes these modifications address the commenter's concerns, including regarding the issue of duplicative verification services.

J-14. Verification Requirements Could Disqualify Biomethane
Comment: Strict reading of the language in section 95131(i) appears to require color-coding of biomethane molecules which is impossible. [OP 04.03 – JW]

Response: ARB has modified the regulation to clarify that it is not expected that the purchased biomethane molecules will be delivered to the reporting facility. The intent is only that a contractual delivery has occurred.

J-15. Verification Requirements Could Disqualify Biomethane
Comment: The language in section 95131(i)(B) seems to disqualify fuel that passes through the hands of any person that received any credit for any fuel in any venture, not limited to fuel in question [OP 04.04 – JW]

Response: ARB has modified the regulation to clarify that receiving credit for emissions in equal to or less than what would have occurred in that absence of the project is allowed, and that the credits in question are limited only to those associated with fuel being reported.

J-16. In-state Production and Combustion of Biofuels
Comment: Some requirements in section 95131(i) are overly broad or should be clarified. This section is designed to address biofuel transactions between two or more parties, rather than biofuel that is produced and combusted by the same entity within California. The verification requirements for such entities should be clarified. For example, such entities may not have contracts to which section 95131(i)(2)(A) could be applied. [OP 06.18 – SCPPA1]

Response: ARB is uncertain which requirements in 95131(i) the commenter finds overly broad, but ARB has made several modification to section 95131(i) to narrow the scope and streamline verification while still maintain the rigor required for a cap-and-trade program,. In response to the commenters concern about the effect of a lack of contract in certain situations, ARB has moved all contracting requirements to section 95852.1.1 of the cap-and-trade regulation to make these requirements more obvious, and section 95852.1.1(a)(4) has added provisions describing the eligibility of biofuel without a contract produced and combusted at the same facility. As long as the biofuel was in use by the facility prior to January 1, 2012 or the fuel has not been previously used to produce useful energy transfer, it satisfies this provision of the regulation.

J-17. Title vs. Custody for Biomethane

Comment: Section 95131(i) requires verification procedures for each entity in the chain of custody of the biofuel. While several pipeline entities may have custody of the biofuel, these entities have no concern with the type of gas they transport and would not be willing to be subject to verification. It would be more appropriate to require information from the entities that hold title to the fuel, as these entities will be concerned with the type of fuel they own and may be more amenable to verification. References to "chain of custody" should be changed to "chain of title" throughout section 95131(i) [OP 06.19 – SCPPA1]

Response: ARB has modified the verification requirements for biomethane and no longer refers to either chain of custody or chain of title.

J-18. Clarify Accredited Certifier of Biomass Derived Fuels
Comment: The reference to an accredited certifier of biomass-derived fuels should be clarified to avoid confusion with the California Energy Commission certification process. SCPPA agrees that a biofuel certification program of the kind outlined on page 37 of the ISOR would be useful, and SCPPA members would be happy to assist in the development of such a certification program. [OP 06.19b – SCPPA1]

Response: ARB included the reference to certifier of biomass-derived fuel to signal ARB's intent to create a program to accurately track biomass-derived fuels. As explained in the Staff Report, the program is not in place, but will be established as soon as practical. It will be developed through a future regulatory process. Until that time, the verification requirements for biomass-derived fuels remain in place.

J-19. Simplify Verification Requirements for Biomass-Derived Fuels
Comment: There are a limited number of biofuel suppliers but many potential purchasers. Suppliers are very unlikely to agree to separate verifications on behalf of each purchaser. Each verification requires time and resources from the entity being verified, particularly in relation to the site visits. Allowing for each supplier to be visited once on behalf of all or several purchasers from that supplier (for each year in which full verification is required) would significantly reduce the burden on both suppliers and purchasers. The verification provisions as currently drafted do not appear to allow for this. [OP 06.20 – SCPPA1]

Response: ARB has revised the procedure for verification of biomethane such that site visits to upstream entities are not required.

J-20. Simplify Verification Requirements for Biomass-Derived Fuels
Comment: As currently drafted, section 95131(i)(2) would require each purchaser of biomass-derived fuel to have their verifier "make one site visit, during each year full verification is required, to each biomass-derived fuel entity in the chain of custody for that fuel". This will result in duplicative verification efforts, since

multiple California entities may purchase biomass-derived fuel from the same supplier.

LADWP purchases biomethane from 2 different suppliers, but the biomethane comes from landfills located across the country including Arkansas, Louisiana, Texas, Ohio, Kansas, Pennsylvania, and Tennessee. Requiring our verifier to visit each out-of-state fuel supplier and landfill for "upstream verification" of the biomethane production would add significant time and expense to the verification process.

LADWP requests that ARB simplify and streamline the upstream verification requirements for biomass-derived fuels, and recommends that suppliers of biomass-derived fuels be treated as an "Asset-Controlling Supplier" to minimize duplicative verification efforts and reduce the additional verification burden. In addition, verification activity should be limited to entities that hold title to the fuel; entities involved solely in transmission of the gas should not be subject to verification. Therefore, references to "chain of custody" for the fuel should be changed to "chain of title" for the fuel. [OP 38.05 – LADWP]

Response: See Response to J-19.

J-21. Simplify Verification Requirements for Biomass-Derived Fuels
Comment: Upstream verification of biofuel suppliers needs to be simplified and streamlined so as to avoid duplicative verification efforts. And there are so many restrictions on the verification of biofuels that it may actually discourage the use of biogas to help reduce fossil greenhouse emissions. [T 06.03 – LADWP]

Response: See Response to J-19.

J-22. Simplify Verification Requirements for Biomass-Derived Fuels
Comment: The reporting regulation should be revised to facilitate biomass as a zero-emission resource. Three subpoints on that. The verification process can and should be streamlined without impinging on integrity. [T 11.02 – SCPPA2]

Response: See Response to J-19.

J-23. Biomass-Derived Fuel Contracting Requirements
Comment: Next, the undue limitation -- what we see as an undue limitation to biogas purchased under contracts executed either prior to 2010 or for expanded biogas production to be reexamined. And we propose some language and written comment. [T 11.03 – SCPPA2]

Response: ARB has moved the biogas requirements referred to by the commenter to section 95852.1.1 of the cap-and-trade regulation, and added additional provisions under which biomass-derived fuel contracts are eligible for

an avoided compliance obligation. See Responses to written comments provided by SCPPA regarding biomass-derived fuel contracting requirements in J-16, J-25, J-26, and J-28.

J-24. Biomass-Derived Fuel Contracting Requirements
Comment: Section 95852.1(b) refers to the biomass verification requirements in section 95131(i) of the Revised MRR. Section 95131(i)(2)(A) of the Revised MRR sets out very important (and detrimental) restrictions on the ability to treat emissions from biomass-derived fuels as zero-CO_2-emissions. Biomass-derived fuel purchased under contracts entered into after January 1, 2010, other than contracts for expanded production only, will not count as zero-CO_2-emissions. SCPPA strongly opposes the restriction in Section 95131(i)(2)(A) of the Revised MRR and will discuss the restriction in its comments on the Revised MRR. However, if such a restriction is imposed, given its importance, it should be clearly set out in the cap-and-trade regulation, for example, in the definition of biomass-derived fuel or in section 95852.1 (directly rather than by cross-reference) rather than being included towards the end of a long and technical section headed "Requirements for Verification Services" in the Revised MRR. [C&T 113 – SCPPA]

Response: ARB agrees with the comment and has moved these requirements to section 95852.1.1 of the cap-and-trade regulation to make them more obvious. In addition, ARB added additional provisions to section 95852.1.1 of the cap-and-trade regulation under which biomass-derived fuel contracts are eligible for an avoided compliance obligation.

J-25. Biomass-Derived Fuel Contracting Requirements
Comment: Under §§ 95852.1 and 95852.2 of the Proposed Regulations and §95131(i) of the proposed revised Mandatory Reporting Rule (MRR), the compliance exemption for biomass-derived fuels is limited to: (1) fuel production that was obligated under contract to a California operator prior to January 1, 2010; and (2) fuel that is "associated with an increase in the biomass-based fuel producer's capacity."

This restriction, however, does not account for facilities which transport gas to California, but are not specifically under a contract. If an operator can provide concrete evidence (and a verifier can verify) that the output from a biomass derived fuel was historically flowing to California, then that fuel is equally deserving of the compliance obligation exemption.

In addition, the language requires that fuel producers that have sold biomass-derived fuel to a California operator before 2010 to continue selling to the same operator in order to retain the compliance exemption. This holds the biomass derived fuel production facility captive to one buyer and gives that buyer an inordinate amount of market power. It unnecessarily restricts biomass derived production capacity that has historically supplied the state from being able to sell to another California buyer, when doing so would have no net impact on

emissions or the cap. As long as a verifier can verify that a contract existed with a California buyer, there should be no requirement for the biomass derived fuel facility to continue to sell to the same entity in order to be eligible for the compliance obligation exemption.

Furthermore, we urge ARB to clarify that a facility which was previously flaring its biogas and now re-directs that gas into productive use (or increases efficiency in its use of biogas) would also qualify for the compliance obligation exemption. [C&T 767.01 – ABC]

Response: ARB has moved all of these requirements to section 95852.1.1 of the cap-and-trade regulation to make them more obvious, and added additional provisions in section 95852.1.1 of the cap-and-trade regulation under which biomass-derived fuel contracts are eligible for an avoided compliance obligation. The contracting date was shifted to January 1, 2012 to coincide with the start of cap-and-trade, and re-direction of gas into productive uses was included as a compliance obligation exemption.

J-26. Once Eligible a Biofuel Should Always be Eligible
Comment: The requirements in section 95131(i)(2)(A) are overly broad, given that the apparent aim of this provision as set out in the ISOR at page 228 is to avoid contract shuffling. This issue should be addressed in a more targeted way to minimize adverse effects on the limited market for biofuels. Changing from one California buyer of biogas to another California buyer should not preclude the biogas from being considered zero-emissions. Furthermore, the ARB should not preclude California entities buying biofuel that is available because a previous contract expires or is terminated for default, bankruptcy, or because the previous purchaser reduced its fuel demand, because this fuel is on the market for reasons other than the incentive under the California cap and trade program. In the proposed changes to section [OP 06.21 – SCPPA1]

Response: ARB has moved this requirement to section 95852.1.1 of the cap-and-trade regulation to make them more obvious, and provisions for continued eligibility for fuel already consumed in California have been added to section 95852.1.1 of the cap-and-trade regulation. ARB has not included any exceptions for expiration, default, or bankruptcy because it believes such exceptions would result in the leakage of emissions to another state.

J-27. Contraction Requirement are Too Restrictive
Comment: The biomass-derived fuel contract eligibility requirements in section 95131(i)(2)(A) are too restrictive. Imposing an emissions compliance obligation on contracts that don't meet one of these conditions would discourage the development of additional biomass-derived fuel sources to help reduce fossil GHG emissions. This provision is contrary to the policy objective to encourage the beneficial use of biomass-derived fuels and should be deleted. Using biomass-derived fuels to generate electricity displaces the equivalent MMBtu of natural gas that would otherwise have been used to generate the electricity,

resulting in a net environmental benefit and reduction in fossil GHG emissions. [OP 38.07 – LADWP]

Response: ARB has moved these requirements to section 95852.1.1 of the cap-and-trade regulation to make them more obvious, and added additional provisions to section 95852.1.1 of the cap-and-trade regulation under which biomass-derived fuel contracts are eligible for an avoided compliance obligation.

J-28. Verification Requirements Could Disqualify Biomethane
Comment: Sections 95131(i)(2)(E) and 95131(i)(4) appear to require that the reporting entity receives the actual molecules of biofuel that it has purchased. This is not practicable as the molecules of pipeline-quality biogas are indistinguishable from those of the natural gas with which the biogas becomes blended once it is injected into a natural gas pipeline. In addition, delivery of gas may take different forms under different procurement arrangements. The key requirements are that the biofuel is produced and consumed, and the reporting entity should not be required to demonstrate that it is the entity that has consumed the biogas. [OP 06.23 – SCPPA1]

Response: ARB has modified the regulation to clarify that it is not expected that the purchased biomethane molecules will be delivered to the reporting facility. The intent is only that a contractual delivery has occurred.

J-29. Verification Requirements Could Disqualify Biomethane
Comment: Section 95131(i)(2)(E) would require the verifier to "track the exact amount of fuel identified in contracts or invoices from the producer to the reporting entity, and have reasonable assurance that the reporting entity is the only customer receiving that fuel." It is not feasible for the verifier to track bio-gas that is injected into natural gas pipelines and determine that the reporting entity physically received the gas. Once biomethane is injected into the natural gas pipelines, it mixes with gas from other sources. It is impossible to track molecules of gas from the source to the point of combustion. The fact the biomass-derived gas was purchased and injected into the natural gas pipeline should be recognized as sufficient to claim credit for displacement of fossil natural gas at the point of consumption.

Ensuring that the amount of biomass-derived fuel is not double-counted (or sold to multiple entities) is covered under 95131(i)(D) (see following): (D) The verification team shall determine that an entity's total volume of biomass-derived fuel transferred to all customers in a calendar year does not exceed the entity's purchases and production of biomass-derived fuels during that year. Therefore, Section 95131(i)(2)(E) should be deleted. For the same reasons, section 95131(i)(4) should be revised. [OP 38.09 – LADWP]

Response: See Response to J-28.

J-30. Verification Requirements Could Disqualify Biomethane

Comment: This section establishes unclear and infeasible requirements for the verification of biomass-derived fuels, particularly if it applies to biomass derived transportation fuels. At this time it is premature to establish requirements for the treatment of biomass-derived transportation fuels in the cap and trade program when overall policies to address transportation fuels are yet to be determined. Given the importance of transportation fuels in the market, it is prudent to evaluate and resolve this issue after additional study and in the context of the overall approach to transportation fuels. [OP 31.08 – WSPA]

Response: ARB has removed the majority of the verification requirements for ethanol and biodiesel reported by fuel suppliers under section 95122. ARB will maintain the rigor of biofuel reporting in collaboration with other ARB programs, including the Low Carbon Fuel Standard.

J-31. REC Eligibility

Comment: § 95131(i) of the proposed revised MRR states that "the verification team shall determine that no entity in the chain of custody has applied for or received credit for the use of biomass-derived fuel in offset credits or any other credits for greenhouse gas reductions in another voluntary or regulatory project." This provision could call into question the ability of biomass derived fuels to be considered as an eligible renewable resource and earn a REC under the state RPS. While it may not have been the intention of ARB staff for the provision to apply to RECs, the ABC urges the ARB to clarify this explicitly so that beneficial use projects are undertaken and not dis-incentivized. Indeed, both the California Energy Commission and the California Public Utilities Commission already recognize the ability of pipeline bio-methane and biomass energy to qualify as an eligible renewable resource under the RPS – as such these projects should not face any restrictions from being able to claim a REC. [C&T 767.03 – ABC]

Response: ARB has moved this requirement to section 95852.1.1 of the cap-and-trade regulation, and added clarifications to section 95852.1.1(b) of the cap-and-trade regulation that the biomass-derived fuel used to generate electricity is eligible for both a REC and an avoided compliance obligation.

J-32. Offset and REC Eligibility

Comment: Furthermore, § 95131(i)(2)(B) of the proposed revised Mandatory Reporting Rule directs a verifier of biomass-derived fuel to determine, when qualifying fuel for the compliance exemption, that "no entity in the chain of custody has applied for or received credit for the use of biomass-derived fuel in offset credits or any other credit for greenhouse gas reductions in another voluntary or regulatory project." In addition to removing the reference to offset credits, CERP asks that this language be clarified to provide that the phrase "other credits for greenhouse gas reductions" does not refer to renewable energy credits. It is our understanding that this is ARB's intent, but the language as written could be misinterpreted. [C&T 206, C&T T 4 – CERP]

Response: ARB has moved this requirement to section 95852.1.1 of the cap-and-trade regulation, and clarified that the biomass-derived fuel used to generate electricity is eligible to receive RECs. Additionally, after further review of the definition of Global Warming Potential (GWP), ARB agrees that biomass-derived fuels should be allowed to receive offset credits in addition to being exempt from a compliance obligation, and language in section 95852.1.1(b) of the cap-and-trade regulation has been modified appropriately. Offsets must be calculated using the U.S. EPA GHG Reporting Rule GWP and the sum of the offsets and the combustion emissions must not exceed the emissions that would have occurred without the offset project being in place.

J-33. Offset Eligibility

Comment: The American Biogas Council believes that biogas from manure digester offset projects is carbon neutral, and should qualify for the same compliance obligation exemption provided for other biogenic sources. In an offset project, an upstream offset is awarded for the conversion of methane to carbon dioxide (CO_2). The compliance obligation exemption, on the other hand, is awarded on the basis that the emissions from biomass derived fuel are biogenic. These are two distinct attributes and should be treated as such.

If ARB must make an adjustment to account for the emissions from combustion of biomass derived fuel, it is preferable that this adjustment be made in the manure offset protocol. The ARB could take into account the project emissions from combusting CO_2 and award a smaller number to offsets, such that the downstream compliance obligation exemption is preserved. This approach is preferable to having a compliance obligation on the gas, which would make it more difficult to market and thereby limit the number of projects undertaken, and the benefits to the State. In addition, since ARB has imposed a quantitative limit on the number of offsets (lowering their value relative to an allowance), being required to surrender allowances from combustion emissions and receiving additional upstream offsets are not equivalent. In this circumstance, receiving a compliance obligation and earning fewer upstream offsets would be a better alternative.

It is important to note that the American Biogas Council does not advocate an approach whereby fewer offsets are awarded. Indeed bio-methane economics often require revenue streams from both offsets as well as the ability to sell the biogas. Reducing the number of offsets received would limit the number of projects undertaken, further inhibiting offset supply and preventing meaningful GHG reductions from taking place. However, this approach is the preferred alternative to requiring compliance obligations for combusting biogas. [C&T 767.04 – ABC]

Response: See Response to J-32.

J-34. Offset Eligibility

Comment: Last on biogas, the reporting rules should recognize that one emission reduction can be obtained by preventing methane emissions from, say, a landfill into the atmosphere but a second emission reduction can be obtained by burning that methane in lieu of a fossil fuel. [T 11.04 – SCPPA2]

Response: See Response to J-32.

J-35. Offset Eligibility

Comment The "Greenhouse Gas Verification Requirements" section of ARB's Staff Report on Mandatory Reporting states that "Any biomass-derived biofuels can not also receive an offset credit in another voluntary or mandatory program and still be an eligible biomass-derived fuel for reporting as biomass CO_2 that would not be subject to an obligation in the cap-and-trade program."

PG&E interprets this to mean that, for example, a livestock manure digester project (e.g. a dairy) that generated and sold offsets and combusted the biogas from that project either as a flare (i.e. stationary combustion) or as a self-generator of electricity would have a cap-and-trade compliance obligation for those combustion emissions if they were equal to or greater than 25,000 MT CO_2e.

PG&E contends that biomass-derived fuel should not be subject to a cap-and-trade compliance obligation if it comes from a project that also receives offset credits, for the following reasons:

a. It Is Inconsistent With The ARB's Compliance Offset Livestock Manure (Digester) Project Protocol. Offsets from livestock manure digester projects, such as those that comply with the ARB Compliance Offset Livestock Manure (Digester) Project Protocol, are from the net change in emissions associated with installing a biogas control system (BCS) at the project's facility. As noted on page 6 and reiterated in Table 4.1 on page 9 of the Protocol, the CO_2 emissions associated with the generation and destruction of biogas (such as through flaring, electricity generation, or combustion as pipeline gas or CNG/LNG) are considered biogenic and are not included in a project's GHG Assessment Boundary. The protocol specifically notes that the CO_2 emissions from combustion of the biogas through flaring, during electric generation, or by an end user of pipeline or CNG/LNG, are excluded from the project's emissions.

b. It Is Inconsistent With Approaches Taken By The Intergovernmental Panel on Climate Change (IPCC), U.S. EPA, And Department Of Energy (DOE). Both the IPCC guidelines for CO_2 emissions from BCS and the EPA in its Mandatory Reporting of GHG Rule agree that the CO_2 emission are biogenic (as opposed to anthropogenic) and should not be counted towards a facility's GHG emissions, and, are therefore not subject to a compliance obligation. The IPCC Guidelines for National Greenhouse Gas Inventories states that "only fossil CO_2 should be included in national emissions under Energy Sector while biogenic CO_2 should

be reported as an information item also in the Energy Sector." IPCC reasons that "CO_2 emissions from livestock are not estimated because annual net CO_2 emissions are assumed to be zero – the CO_2 photosynthesized by plants is returned to the atmosphere as respired CO_2." EPA's Inventory of U.S. GHG Emissions and Sinks specifically states that biomass combustion emissions of "biogenic origin" are excluded because "Fuels with biogenic origins are assumed to result in no net CO_2 emissions, and must be subtracted from fuel consumption estimates." Finally, DOE's voluntary GHG reporting program, 1605(b), states that "carbon dioxide emissions of biogenic fuels do not "count" as anthropogenic emissions under the Framework Convention on Climate Change because the carbon embedded in biogenic fuels is presumed to form part of the natural carbon cycle."

c. Without the Benefit Of Both Energy And Carbon Offsets Livestock Manure Digester Projects Are Not Cost Effective. Even with full credit for carbon offsets and use of the project's biogas for self-generation or sold electricity, Livestock Manure Digester Projects are financially challenging. Although, ARB currently lists nineteen digester projects as operational, there are only eleven digester projects currently in operation in California. Many digesters have shut down for economic and/or operational reasons. In order for these projects to contribute to the State's GHG reduction goals, they need revenue from both the energy value of the biogas and carbon offsets. Finally, if these projects don't get built, there will be an increase in greenhouse gas emissions. [C&T 130.02 – PGE2]

Response: See Response to J-32.

J-36. Offset Eligibility

Comment: Section 95131(i)(2)(B) would not allow biofuel combustion to be considered zero emissions if offsets have been created in respect of the use of that fuel. It should be clarified that only offsets for emissions avoided due to fossil fuel displacement, for example, biofuel being used in place of fossil fuel, are precluded. Offsets for avoided methane emissions from the biomass waste fall into a separate category of emission reductions, and should not preclude the biofuel being treated as zero-emissions when combusted. [OP 06.22 – SCPPA1]

Response: See Response to J-32.

J-37. Offsets Eligibility

Comment: SMUD is concerned about section 95161.i.B, which apparently prohibits entities from producing both pipeline biogas and carbon offsets from facilities like biodigesters or landfills. Whether landfill gas or digester gas is converted to pipeline biogas or burned on-site to produce renewable energy both options should be viewed as capable of producing two benefit streams: one for zero emissions biogenic renewable energy generation, and the other for a carbon offset for the destruction of methane. Eliminating the zero emissions benefit for renewable energy generation creates a disincentive to installing equipment to

either generate on-site renewable electricity or clean up the gas to send to highly efficient gasfired power plants. This policy will cause facility owners, if they can afford it, to opt for producing a carbon offset by flaring the gas, resulting in a lost opportunity to produce useful electricity from that same resource. The existence of both benefits is recognized by state law and the CPUC in their definition of a renewable energy credit as well as by the Climate Action Reserve and Green-e. The existence of both benefits is good policy that furthers the goals of AB 32 through both the RES and Cap and Trade programs.

The policy of limiting methane capture to one benefit stream also seems at odds with other provisions of the program. The ARB recognizes the biogenic nature of digester gas, and explicitly states that its combustion for displacement of fossil generated electricity is a complementary and separate GHG project activity and is not included within the offset protocol accounting framework (See ARB Livestock Protocol, at p. 6.) Consequently, the proposed Cap and Trade program exempts emissions from combustion of biogas (See section 95852.2(e), at p. A-66). However, the proposed Mandatory Reporting regulation apparently prohibits two benefit streams from landfills and biodigesters on the theory that the combustion of biogas produces carbon emissions and thus should have a compliance obligation. (Telephonic discussion between SMUD and ARB staff, Tuesday, Dec. 7, 2010) Thus, the prohibition in the Mandatory Reporting regulation is contrary to ARB's Cap and Trade policy and internally inconsistent with ARB's own livestock protocol. Thus, the prohibition should be dropped for both livestock and landfill gas. [OP 35.01 – SMUD1]

Response: See Response to J-32.

J-38. Offsets Eligibility

Comment: Section 95131(i)(2)(B), which requires the verifier to determine whether anyone in the chain of custody of the biomass-derived fuel has applied for offsets or other credit for GHG reductions, may be unnecessary since there is no overlap (double counting) between the reduction credited under the offset protocol and the reduction achieved by displacing fossil fuel through the beneficial re-use of bio-fuels for generating electricity.

Combustion of methane from landfills and dairy digesters to generate electricity should be considered carbon neutral and not subject to a compliance obligation under the cap & trade program.

There is no potential for double counting of offsets and combustion of biomass-derived fuels under the CARB cap & trade program for the following reasons:

a. The only offsets acceptable for compliance use in the CARB cap & trade program are those generated under protocols adopted by CARB as part of the cap & trade rulemaking.

b. The only offset protocol being adopted by CARB relating to the capture of methane is the Livestock Manure (Digester) Projects protocol. CARB is not adopting any other offset protocols relating to biomass-derived fuels.
c. There is no protocol for generating offsets from the capture of methane from landfills.
d. The "Livestock Manure (Digester) Projects" protocol creates offsets (GHG emission reduction credits) for the capture and destruction of methane that would otherwise have been emitted to the atmosphere. The Livestock Manure (Digester) Projects protocol does not give credit for CO_2 emission reductions from the beneficial re-use of the methane to generate electricity, which displaces an equivalent amount (MMBtu) of fossil fuel (natural gas) that would otherwise have been used to generate that electricity (see excerpts below).

Excerpts from Staff Report and Compliance Offset Protocol for Livestock Manure (Digester) Projects (http://www.arb.ca.gov/regact/2010/capandtrade10/cappt4.pdf):

Staff Report, Quantification Methodologies (page 6): Because of the uncertainty in the calculation methodologies for determining nitrous oxide (N_2O) emissions associated with projects, these emissions or emission reductions are not included in the current offset protocol. In addition, the use of biogas for producing power for the electricity grid or electricity for on-site use, thereby displacing fossil-fueled power plant GHG emissions, is considered a complementary and separate GHG project activity and is not included within the offset protocol accounting framework.

Compliance Offset Protocol for Livestock Manure (Digester) Projects, 4. The GHG Assessment Boundary – Quantification Methodology (page 6): This protocol does not account for carbon dioxide emission reductions associated with displacing grid-delivered electricity or fossil fuel use. [OP 38.08 – LADWP]

Response: See Response to J-32.

J-39. Revising GHG Data Emission Reports

Comment: Commenter suggests that requiring reporters to make revisions in their emissions data reports in section 95131(b)(10) to address immaterial differences between reported and verified emissions is inconsistent with the stated job of the verifier to provide reasonable assurance. [OP 37.04- RMA]

Response: In the first 15-day modification, section 95131(b)(10) was renumbered to section 95131(b)(9). The section requires reporting entities to correct errors found by verifiers in the emissions data report. This is required to obtain the most accurate GHG emissions data for the cap-and-trade program.

J-40. ARB Accreditation Process

Comment: A verification accreditation system already exists in the US; it seems a wasteful endeavor for ARB to continue to invest budget and resources to maintain another accreditation system. Creating multiple accreditation programs with multiple verification processes will confuse rather than harmonize. [C&T 221.01 ANSI, C&T 738, BCFSE]

Response: ARB requirements in the MRR were designed specifically for California's mandatory GHG emissions reporting program and to support California's cap-and-trade program, including its compliance offset program. ARB has established and implemented a robust and rigorous verification program consistent with the international ISO 14065 standard, as well as a verifier performance oversight program that maintains consistency in verification services provided in CA.

J-41. ARB Accreditation Process

Comment: ANSI's accreditation program is well established and this regulation is an opportunity for ARB to adopt ISO 14065 accreditation program and maintain consistency with regulations adopted by Western Climate Initiative (WCI) jurisdictions. [C&T 221.02 ANSI]

Response: ARB's maintains a robust and rigorous verification program which is consistent with the ISO 14065 accreditation standard. To assure the quality of verification services specific to California, ARB has added a performance review and a disclosure of verification body's contracts requirement to its current rigorous accreditation requirements. See also Response to J-40 and J-42.

J-42. ARB Accreditation Process

Comment: The commenter identifies an area of the verification program where they believe the program is lacking. The commenter states that "CARB defines an accredited body as a company having two individuals training and certified by CARB". They state that this is problematic. [C&T 221.03 ANSI]

Response: ARB's verification accreditation program is consistent with the ISO 14065 standard for accrediting verification bodies. The following list highlights the areas in ARB's verification body requirements that are inclusive of all of the major requirements in the ISO 14065 standard:

- Be a legal entity that can be held accountable;
- Possess an internal conflict of interest policy, mechanisms to monitor, and requirements to remove and control for conflicts if they arise;
- Maintain Liability Insurance;
- Competencies for sectors, if applicable;

- Requirements to form verification teams with appropriate skills for verification of special sectors;
- Take responsibility for any subcontractor's potential for conflict of interest with the client and the quality of their work;
- Identify a verification team lead; and
- Maintain record retention requirements.

In addition, ARB has chosen to advance the requirements for accreditation beyond the ISO 14065 standard for verification bodies to the level of individual verifiers. ARB chose to add such a requirement to ensure a competency standard at a level beyond that currently required by international best practices. ARB has also added to its current rigorous accreditation requirements a performance review and a requirement that the verification body disclose its contracts.

J-43. ARB Accreditation Process

Comment: The association of accredited verification bodies are concerned that section 95132 "lacks the rigor associated with the best practice for accrediting Validation and Verification Bodies in the US and internationally". They believe that it is in the best interest of ARB to use a verifier who has been through a much more rigorous accreditation process than ARB currently requires and which meets international standards for conducting such work. The association recommends that section 95132 is amended to meet standards developed by ISO (ISO14065) and identified by ANSI. [OP 12.01-AAVB, C&T 738, BCFSE]

Response: ARB has developed rigorous accreditation requirements using key principles from ISO 14065 and the requirements are consistent with standards in other existing programs such as (EU ETS 2007, and TCR 2010, and CAR requirements). ARB oversees accreditation, verifications, and the quality of verifiers. All new and existing verifiers and verification bodies must meet strict eligibility criteria and training to become ARB accredited to provide verification services under the modified MRR. All applications to become a verifier must past a performance review. If ARB determines that the applicant meets the qualifications, the applicant must take ARB approved verification training and pass an exit exam. The regulation requires additional experience and training for verifiers providing services to reporters identified in the transaction, oil and gas, and process emissions sectors. These sectors often have complex process emissions, rigorous fuel test requirements, contractual arrangements and sales and purchase complexities that require verifiers to have special knowledge. To assure stability in the verification process, a company qualified to provide verification services must have at least five staff members, including two lead verifiers, and carry liability insurance. Lastly, staff performs annual audits of verification bodies which include:

- Rigorous review of conflict of interest self-evaluations;
- Observation of the verification body during the site visit;

- Review of the verification body's documentation including: Verification plans, sampling plans, data checks, issues logs and resolutions, verification reports, materiality check, and final verification opinion.

J-44. ARB Accreditation Process
Comment: Commenter identifies areas of verification accreditation best practices where ARB verification program is lacking. Commenter identifies nine ANSI requirements and states that ARB does not address them. [OP 12.02- AAVB]

Response: See Responses to J-42 and J-43. ARB has added a performance review and a requirement for the verification body to provide its verification contract for services upon request. ARB believes the goals of each item that the commenter listed is covered by its verification program.

J-45. ARB Accreditation Process
Comment: Concerned with the ARB accreditation process and believe it is too weak. The commenter states that "it takes more than simply taking a course and passing a test to become a competent professional and reliable verifier". [B 03.01 – FE]

Response: For the reasons expressed in Responses to J-42 and J-43, ARB believes that ARB's accreditation program is rigorous, consistent with ISO 14065 standards, and includes additional requirements beyond those standards for individual verifiers.

J-46. ANSI Accreditation for Verification Bodies
Comment: Request that ARB require ANSI accreditation for all ARB verification bodies. [OP 37.05- RMA]

Response: See Response to J-44.

J-47. ARB Use ISO 14065 Accreditation
Comment: As more GHG programs rely on the ISO 14065 accreditation process, the process is becoming even more cost-effective for verification bodies as they consolidate the cost of accreditation across multiple schemes. GHG programs that rely on ISO 14065 accreditation also need fewer resources to ensure the competency of and oversee the activities of the verification bodies that service their program. The Registry urges CARB to recognize ISO 14065- accredited verification bodies as qualified to conduct verifications under its rule. Also to amend its rule to consistent with the WCI framework and regulations adopted by other WCI jurisdictions. [OP 42.01- TCR and T 17.01-ANSI]

Response: ARB's decision to remain as the accreditation body is to maintain and control the rigorous accreditation requirements specific to ARB's mandatory programs (see Response toJ-40). ARB has developed rigorous accreditation requirements using key principles from ISO 14065. See also Response to J-43.

§95133 Conflict of Interest Requirements for Verification Bodies for Emission Data Reports

J-48. Conflict of Interest and District Verification
Comment: Main Obstacle for CAPCOA is an ARB perceived conflict of interest, with which CAPCOA does not agree with. As explained in relation to Mandatory Reporting, pursuant to state law, local air district staff must report any potential conflicts of interest, and are faced with criminal penalties and prosecution for failure to comply. [OP 09.11- CAPCOA]

Response: ARB has modified the regulation, pursuant to Board direction at the December 2010 hearing to add language to section 95133(h) in the first 15-day modifications which address this comment. In particular, ARB added language to clarify the conflict of interest self-evaluation and the air district verification requirements in the MRR. This addition allows district staff to participate as verifiers while maintain a conflict of interest self-evaluation. Additional language on conflict of interest was also added to section 95979(g) of the cap-and-trade regulation.

J-49. Conflict of Interest and District Verification
Comment: CAPCOA states that Districts can perform multiple functions in the cap and trade program. CAPCOA points out that having multiple roles is what the local air districts have done successfully for decades. They collect and audit emission reports, develop emission factors and conduct source tests, permit and inspect facilities, charge fees, issue emission reduction credits and in South Coast implement a cap and trade program for large industrial facilities- all of this is done without conflict of interest. [OP 09.12- CAPCOA and OP 43.01- BAAQMD]

Response: See Response to J-48 regarding District verification of GHG emissions data reports.

J-50. Conflict of Interest and District Verification
Comment: To help ensure more productive collaboration in the future, CAPCOA suggests a report to the CARB Board in three months regarding how local air districts are being utilized in various aspects of the program, such as emission verification. CAPCOA suggest that the Board consider whether an advisory group with participation by a Board member, would enhance the collaborative process. [OP 09.33- CAPCOA]

Response: In regards to the verification of emissions by air districts, ARB has made changes to the conflict of interest section to clarify the districts' ability to provide verification services. See Response to J-48. The comment also contains a request for a report to ARB in three months and the establishment of

an advisory board. While these items are outside the scope of the 45-day modifications, ARB continues to discuss them internally.

J-51. Conflict of Interest and District Verification
Comment: BAAQMD suggest that the Board consider whether a working group with participation by ARB and air districts, would enhance the collaborative process. [OP 43.02- BAAQMD]

Response: Same response as J-50.

J-52. Conflict of Interest and District Verification
Comment: Follow up and on-going coordination. Commenter suggests there be a report to the ARB regarding how local air districts are being utilized in various aspects of the program, including emission verification, offset verification, and protocol development. Also suggest an advisory committee with participation by an ARB board member to enhance the collaborative partnership that SCAQMD and other districts would like to forge with ARB on AB32 programs. [OP 22.05 SCAQMD, C&T Bd 04-SCAQMD]

Response: See Response to J-50.

J-53. Conflict Interest and Verification Start Dates
Comment: Proposes that verification body be able to perform limited verification services upon the approval of the Conflict of Interest (COI) self-evaluation form rather than 10 business day after submittal of the Notice of Verification Services (NOVS) form. [OP 37.01- RMA]

Response: ARB understands that the verification body must have GHG emission data and documentation to determine the scope of its contract with the facility operator, and to determine the feasibility of providing verification services including the scope and boundaries of the facility and data report, including applicability and complexity of the sources at the facility. The verification body may look at this information before ARB approval of the COI self-evaluation form.

J-54. Bulk Submittal of COI Forms
Comment: Proposes bulk submittal of COI forms for low-level COI. [OP 37.02- RMA]

Response: ARB requires verification bodies to disclose all required information for each verification service they provide to a reporting entity. Any COI submittal must meet the requirements of sections 95130-95133. ARB may consider providing a bulk submittal form to verification bodies in the future.

J-55. Conflict of Interest and Districts

Comment: Pleased to see proposed 15-day changes as related to air districts as verifiers for emissions. Provide clarification with respect to offset verification by districts. [T 03.01-BAAQMD and T 16.01- SMAQMD]

Response: Additional language was added to section 95133(h) in the first 15-day Modifications to address the conflict of interest self-evaluation and Districts participation in the verification program. Additional language on COI was also added to section 95979(g) of the cap-and-trade regulation.

K. Subarticle 5. Requirements and Calculation Methods for Petroleum and Natural Gas Systems (§95150 – §95157)

K-1. Deadline for Metering of Pneumatic Device Venting

Comment: For natural gas pneumatic high bleed device and pneumatic pump venting, CIPA notes objection to the requirement to install metering of natural gas venting on 50 percent of all high bleed devices and pneumatic pumps by January 1, 2013. [B 04.05 – CIPA]

Response: ARB has revised this section to allow reporters additional time to install meters. Reporters must now meter all high bleed pneumatic gas consumption by January 1, 2015.

K-2. Produced Water

Comment: The regulation includes reporting for CO_2 in produced water resulting from Enhanced Oil Recovery (EOR) operations where supercritical phase CO_2 is injected into oil and gas fields to stimulate productivity. Currently, only thermal EOR activities occur in California. The method is included to provide a method for estimating emissions should critical phase CO_2 EOR is used in California. Because supercritical phase CO_2 EOR is not used in California, it should not be included in the regulation. [B04.06 – CIPA]

Response: The requirement to report produced water dissolved CO_2 and CH_4 is not limited to supercritical CO_2 Enhanced Oil Recovery. The commenter is directed to the Definitions section (95102) where EOR is defined to include steam and water floods as well as supercritical CO_2 injection. ARB believes that emissions from this source are significant and warrant reporting. The regulation has been modified to address issues that arise in situations where produced crude, water and gas go directly to storage and do not pass through a separator.

K-3. ARB Should Conform with EPA final Subpart W

Comment: With the November 8, 2010, issuance of EPA's final reporting requirements for Subpart W, 40 CFR Part 98, PG&E recommends that ARB conform Subarticle 5 to the final version of the federal requirements to the greatest extent possible to maximize the consistency between these

two mandatory reporting regulations. The final version of Subpart W reconciled a wide range of issues from several industry segments, so the ARB's incorporation of Subpart W would serve to reflect those critical changes. [OP07.12 – PGE]

Response: ARB has harmonized wherever possible with the latest Final Subpart W published in the Federal Register on November 30, 2010. In August 2011U.S. EPA issued several proposed rule changes for Subpart W. ARB is evaluating these changes and will consider them when finalized by U.S. EPA when determining whether future amendments to the MRR are necessary. ARB will need to consider each change in light of ARB emissions inventory and control program needs.

K-4. ARB should adopt EPA's updated Subpart W source categories
Comment: ARB should adopt EPA's updated Subpart W source categories. [OP 07.13 – PGE]

Response: Please see Response to K-3. Source categories in the state and federal regulations are close to identical, but natural gas boosting stations are retained in the California regulation.

K-5. ARB should allow best-available methods for 2011
Comment: The final Subpart W (specifically §98.234 (f)) allows the use of best available monitoring methods ("BAMM") for specified time periods and for certain emissions sources during the 2011data collection year. With the recent release of the revised reporting regulation and December 2010 consideration by the Board, it is essential to allow the optional use of BAMM during 2011.
There are many facilities covered by this rule that should be allowed to use BAMM for parameters for which it is not reasonably feasible to acquire, install, or operate a required piece of monitoring equipment in a facility, or to procure measurement services from necessary providers. Complying entities should be granted a reasonable period of time to adjust their operations and industry practices to the requirements of the final rule. [OP 07.14 – PGE]

Response: ARB has modified the regulation to incorporate the Best Available Monitoring Methods provisions approved by U.S. EPA on April 25, 2011.

K-6. ARB should adopt EPA's LDAR requirements
Comment: The final Subpart W (specifically §98.234 (a)) allows leak detection surveys using one of the three following methods: an optical gas imaging instrument; an infrared laser beam illuminated instrument; Method 21.
In addition, for natural gas distribution, the final Subpart W only requires leak detection for above ground M&R stations (i.e. city gate stations) at which custody transfer occurs. ARB's current requirement to annually survey all above-grade M&R station components using an optical gas imaging instrument, which is based on the previous draft Subpart W, is inconsistent with the final rule and does not use industry standard practices to detect leaks. The other methods

allowed by EPA are more widely used by the industry to detect leaking equipment and are far more cost effective. For example, PG&E has demonstrated that Organic Vapor Analyzers, generally permitted under Method 21, are a proven technology for which extensive operating procedures and trained employees already exist. PG&E, as a member of the American Gas Association, is working to gain clarification from EPA that the specific standard practices that PG&E uses are acceptable under EPA's final rule. For these reasons, and to ensure consistency between reporting rules, PG&E urges ARB to adopt EPA's leak detection methods and requirements. [OP 07.15 – PGE]

Response: The regulation incorporates the provision cited by the commenter from the final Subpart W approved by U.S. EPA on November 30, 2010.

K-7. Exempt safety systems from pneumatic device metering requirements

Comment: PG&E believes that ARB should exempt critical safety systems from pneumatic device metering requirements in § 95153 (a) when the installation of metering devices on pneumatic controls could impact the reliability and functionality of the system. Typical critical safety systems on the PG&E gas system include pressure regulation and over-pressure protection devices, and valves used for the emergency isolation and/or evacuation of stations or pipeline segments. PG&E's primary concern is that by adding meters to these systems, an additional point of failure is introduced, which could reduce the reliability of critical safety systems. [OP 07.16 – PGE]

Response: Reporters are not required to complete pneumatic device meter installations until January 1, 2015. This should provide operators time to identify pneumatic devices where installation of a meter would jeopardize personnel and/or operational safety. ARB agrees with the commenter that personnel health and safety concerns as well as the broader issue of operational safety are important. There is time to develop procedures that ensure that safety is not compromised, through subsequent amendments to the regulation if necessary.

K-8. ARB should adopt EPA's blowdown vent stack emissions methodologies

Comment: For section 95153 (h), ARB should adopt the requirements for blowdown vent stacks of EPA Subpart W as noted in EPA 40 CFR 98.233(i), which specifies that blowdown volumes smaller than 50 standard cubic feet are exempt from reporting. The resources necessary to log the required information for these small blowdowns are not appropriate in light of the small volume of emissions from these sources. [OP 07.17 -- PGE]

Response: The regulation incorporates the provision cited by the commenter from the final Subpart W approved by U.S. EPA on November 30, 2010.

K-9. ARB should conform with EPA's meter accuracy requirements
Comment: Section 95153(n)(2)(B) concerning reciprocating compressor rod packing venting does not specify the accuracy requirements of temporary meters. PG&E suggests that ARB adopt EPA's requirements for calibration accuracy in 40 CFR 98.3(i), which provide facility operators and verifiers clear guidelines for meter accuracy. [OP 07.18 – PGE]

Response: Natural gas local distribution companies who report under section 95122 of the regulation are subject to the U.S. EPA requirements cited by the commenter. In the oil and gas production segment, meters do not apply in the method required for compressors below the 250 horsepower threshold specified in section 95153(n). Where meters do apply (for larger compressors) these reporters must observe the provisions of section 95103(k). These additional requirements are needed to ensure sufficient accuracy to support the cap-and-trade program.

K-10. Eliminate reporting of compressor throughput or allow use of available metrics.
Comment: Section 95156 (c)(18) states: "For reciprocating compressor rod packing, the operator must report the following per rod packing: (A) Total throughput of the reciprocating compressor whose rod packing emissions is being reported." Compressor throughput is not used in the process of calculating emissions, and metering individual compressor flow is often very difficult. In many cases, there is insufficient clear space for an accurate meter, and the compressor vibrations and pulsations significantly affect the ability to achieve accurate metering results. Operating hours are already reported and can be used to approximate the compressor throughput. PG&E recommends that ARB clarify that it is acceptable to estimate throughput using available metrics such as operating hours.[OP 07.19]

Response: ARB has deleted the requirement cited by the commenter in the process of harmonizing with the November 30, 2010 Final Subpart W.

K-11. ARB should align with Section 95152(i) with EPA Subpart W.
Comment: The Initial Statement of Reasons (ISOR) states that many changes in the MRR were made to better align the reporting Rule with many of the requirements of the United States Environmental Protection Agency (USEPA) mandatory greenhouse gas reporting program. Since the USEPA only recently published the Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems on November 30, 2010 some elements of the MRR need to be corrected prior to approval of this regulation. Having recognized the extreme costs associated with conducting extensive leak surveys and the relative insignificance of those emissions. USEPA significantly changed its reporting requirements for fugitive emissions reporting from distribution systems. Section 95152(i) should reflect USEPA findings. Above ground metering stations and gate stations should be clarified, and limited to which ones are required to monitor fugitives. [OP 20.02 – Sempra]

Response: The requirements cited by the commenter have been deleted in the process of harmonizing with the November 30, 2010 Final Subpart W. Section 95152(i) requires operators of natural gas distribution systems to report emissions from the sources identified in 40 CFR §98.232(i), consistent with the commenter's request. In addition section 95153 requires local distribution companies to calculate emissions according to the requirements of 40 CFR §98.233.

L. Other 45-Day Comments Received

L-1. Economic Benefits of Regulation

Economic Benefits are Substantial: According to Small Business Majority's released report, the findings show that AB 32 provides to California's small business. It will boost small businesses' bottom lines and stimulate job creation, increase demand for goods and services. Report concludes that AB 32 's economic potential is substantial. [OP 03 – SBM]

Response: Although the comment is outside the scope of the proposed mandatory reporting regulation, ARB appreciates that the referenced study indicates possible benefits from the implementation of AB 32.

L-2. Regulation Bad for Business

Comment: Doing this at this time would be bad for business. The economy is just starting to turn around. Why risk scaring away potential businesses that might want to come to California? Why make it more difficult for current businesses to grow? Stop this. Wait until unemployment is below 5% and then work on emissions. [OP 13.01 – BC]

Response: The regulation is required by State law. In preparing the proposed revisions to the regulation ARB has minimized costs by providing for abbreviated reporting for smaller facilities, and by harmonizing, as much as possible given program needs, with U.S. EPA GHG reporting requirements. Because the regulation will achieve much greater alignment of State and federal GHG reporting requirements, industry costs will be reduced relative to the separate programs that exist today.

L-3. Insufficient Opportunity for Public Input Provided

Comment: Insufficient opportunity for public input was provided in developing the regulation. The amount of time to review the proposed regulation was inadequate, considering the scope and size of the regulation, and the concurrent release with the ARB cap-and-trade regulation. [OP 17.01 – CC]

Response: ARB staff had many individual meetings and teleconferences with stakeholders throughout the regulation development process, and two public

workshops were also held. All comments received during the 45-day proposal public review period, during the board meeting, and following two subsequent 15-day proposal public review periods have been considered. The final regulation reflects many changes resulting from this extended public input.

L-4. Should Not Use Previous Glass Sector Data Lacking Process Data
Comment: Past GHG data reported to ARB under the existing reporting rules did not include process-related GHG emissions data. Subsequently, ARB should avoid reliance on past GHG data provided pursuant to the existing MRR for the Glass Production sector because it lacks information on the process-related emissions. [OP 28.03 – VG]

Response: ARB agrees that it is important to use the most current and complete data available, and will be cognizant of the limitations of previous data sets if they are used for analysis. Process emissions have been added through this set of amendments to the regulation.

L-5. Clearly Label " metric tons" and "short tons" In Regulation
Comment: It is recommended that the use of the term "ton(s)" be clearly labeled as a "metric ton" or "short ton" throughout the regulation and supporting documents. [OP 28.04 – VG]

Response: ARB agrees that this is good practice for clarity. The 15-day changes and final regulation reflect this comment.

L-6. Disagree That Public Utilities Can Easily Absorb Additional Costs
Comment: Trinity disagrees with the conclusion that additional costs for public utilities can be easily absorbed. [OP 39.01 - TPUD]

Response: With the proposed modifications to the regulation, the level of effort and quantity of data required to be reported by small public utilities was reduced from what was previously required. As the utilities were able to comply with the previous, more comprehensive, reporting requirements, and because the regulation provides a cost savings for small utilities compared to the existing regulation, ARB concludes that the utilities will be able to absorb these reduced costs. Such costs should be very small for non-importing utilities such as Trinity.

L-7. Evaluation of Total Cost for Program
Comment: Has ARB estimated the total costs to all affected reporters to complete reports and comply with the regulation? [OP 39.02 - TPUD]

Response: Yes. Refer to Chapter VI of the Staff Report.

L-8. Concerned About Costs of Program

Comment: We are concerned about the costs of the program. We ask that cost implications be recognized and a panel, including the agricultural sector, be set up to monitor costs. [T 07.04 – AGCO]

Response: Costs have been estimated in Chapter VI of the Staff Report. ARB notes that the request to create a panel to monitor costs is beyond the scope of the 45-day modifications; however, ARB will continue to work with stakeholders individually as requested.

L-9. Provide Paper Forms for Simple Reports

Comment: For reporters with minimal reporting requirements, provide paper forms for submitting data. [OP 39.03 - TPUD]

Response: Because of the relatively large number of reporters and the need to provide an efficient and cost effective program, the use of paper forms is impractical. However, ARB plans to provide for reporting of "Abbreviated Reporting" data via a spreadsheet form or through a simplified reporting tool interface.

L-10. No Reporting if Zero Data

Comment: If zero emissions are produced by a reporter, they should not be required to report, simply to report a zero value. [OP 39.04 - TPUD]

Response: If a reporter does not meet the applicability requirements, then it is not necessary to submit an initial report. Facilities and suppliers who previously met applicability requirements and then have zero emissions due to a shutdown must report only once, to indicate this circumstance. Verification is not required in this case. In addition, the reporting requirements for Electric Power Entities have been simplified to minimize unnecessary reporting.

L-11. Coordination with Local Air Districts

Comment: The air districts support a joint work plan, consolidation of a tool for reporting local greenhouse gas emissions, use of an inter-agency task force to implement the cap-and-trade program, and use of the air districts to verify offsets and develop ideas and structures for offset protocols that ARB would approve. [T 16.02 - SMAQMD]

Response: ARB looks forward to ongoing working partnerships with air districts in implementing the mandatory reporting program.

L-12. Include Local Air District Efforts and Review Progress

Comment: Encourage the Board to support integration of district efforts into CARB's global warming process and to review progress periodically. [T 16.03 - SMAQMD]

Response: Although not directly related to the specific requirements of the reporting regulation, the ARB is committed to working with local air districts to minimize duplication of effort and to maximize the efficiency of GHG inventory and control programs

L-13. District Partnership Workplan
Comment: A joint workplan was prepared that detailed a robust working partnership that was to be developed. The workplan was completed and went into "management review' but was never finalized. [OP 09.02 – CAPCOA]

Response: This comment is outside the scope of modifications to the proposed regulation; however, see Response to L-12.

L-14. Interagency Task force
Comment: Interagency Task Force: CARB/CAPCOA cap and trade work program was formed in March 09, an initial meeting was held in April 09, with plans to have monthly meetings. No subsequent meetings were scheduled. [OP 09.21 – CAPCOA]

Response: This comment is outside the scope of the modifications to the proposed regulation; however, see Response to L-12.

L-15. Establish Advisory Committee
Comment: Add: Be IT FURTHER RESOLVED that the Board directs the Executive Officer to establish an Advisory Committee with air districts to facilitate their involvement in implementation of this regulation and other AB 32 programs. The Executive Officer is directed to report back to the Board in three months regarding progress for this effort. [OP 22.05(a) – SCAQMD]

Response: This comment is outside the scope of the modifications to the proposed regulation. See also Response to L-12.

L-16. Establish Advisory Committee
Comment: Resource Implications: Local air districts have resources and expertise that can help ensure successful implementation of cap and trade and other stationary source programs under AB32. [OP 09.13 – CAPCOA]

Response: ARB agrees.

L-17. Emissions Underestimated for Facility
Comment: The following correction needs to be addressed immediately by the California Air Resources Board. In a report generated by ARB on April 20, 2010, it lists PES's 2008 total CO_2e emissions as 44 metric tons. That is incorrect. As reported in the ARB online data collection system, PES's total 2008 CO_2e emissions were 131,103 metric tons. [C&T 678 – PEB]

Response: Although not related to the regulatory action, ARB has confirmed that the most current posted data, dated June 10, 2011, shows 127,765 metric tons CO_2e reported for the facility cited by the commenter.

L-18. Hydrogen Plant Emissions Underestimated

Comment: Hydrogen Plant emissions are underestimated. For example, hydrogen plants at oil refineries are growing at a fast rate, in order to allow refineries to process heavier, more contaminated crude oil. Just one hydrogen plant can emit over a million tonnes per year of CO_2e (such as at the ConocoPhillips Rodeo facility), so it is almost certain that the total of 2.22 MM tonnes listed for hydrogen plants now is actually much higher and getting even bigger than listed in the CARB chart. CBE has previously provided a partial list of additional hydrogen plant projects in comments to CARB, and we incorporate those by reference. CBE also previously requested that CARB perform a more detailed assessment of planned hydrogen plants expansions at refineries, and we included the following chart in both written comments submitted, and in testimony at a CARB hearing. This chart shows that just due to new hydrogen plants added, or in the process of being built, in the last decade, about 6 million tonnes per year of CO_2 emissions were added. This is a continuing trend that needs to be reigned in; it is caused by huge GHG increases that appear not to be accounted for by CARB, as well as by big local pollution increases during these oil refinery expansions that are occurring for the purpose of switching to heavier, more contaminated, cheaper crude feedstocks at oil refineries. [C&T 762 – CBE]

Response: The methods in the regulation require hydrogen plant operators to provide complete and accurate annual estimates of GHG emissions from producing hydrogen. ARB has no information to indicate that the third-party verified reported data underestimates actual emissions for the reporting period. The MRR only provides for the reporting and verification of emissions, and has no authority to affect overall business practices or growth.

L-19. Emissions Underestimated

Comment: Industrial GHG emission sources are massive (largely oil industry emissions), but still underestimated in CARB documents. [C&T 762 – CBE]

Response: As part of the regulation amendments, additional sources and methods have been added that will result in more comprehensive reporting for several major industries, including petroleum and natural gas systems and fossil fuel suppliers. These revisions will provide a much more expansive estimate of oil and gas industry GHG emissions. For those sources that are currently being estimated, ARB disagrees with the statement that industry emissions are underestimated.

L-20. Include Land Use Impacts When Reporting Emissions

Comment: Given the similarity in upstream accounting issues and potential environmental impacts with respect to biomass energy and fuels in the cap and

trade program, GHG treatment and sustainability considerations should be consistent with the Low Carbon Fuel Standard program. TNC recommends that ARB amend § 95852.2 (a)(4)(A) of the cap and trade regulations and § 95852.2 et al. of the mandatory reporting regulation to include upstream biological emissions associated with the land use impacts and management of feedstock. The accounting and reporting guidance should be developed in 2011 prior to the regulations taking effect in 2012 and should require biomass fuel suppliers to report biological emissions associated with the feedstock. In the near term, CARB should require fuel users to report the origins of biomass for fuel. [OP 02.01 – TNC]

Response: Please see Response to A-72.

M. Subarticle 1. Applicability, Definitions, and General Requirements §95100 – §95106

§95100.5 Purpose and Scope

M-1. Consistency With U.S. EPA Reporting Requirements

Comment: Consistency with Evolving Federal Regulations. As discussed in Section 95100.5 Purpose and Scope, the MRR incorporates various provisions of title 40, Code of Federal Regulations, Part 98 - provisions to the U.S. Environmental Protection Agency Final Rule on Mandatory Reporting of Greenhouse Gases. SEU appreciates Air Resources Board's efforts to minimize duplicative and inconsistent reporting between the MRR and the U.S. EPA Final Rule. Although the MRR states that it incorporates various provisions of the EPA rule, the language fails to subscribe to the fact that the EPA Final Rule is and has been subjected to frequent revision. At issue is the Federal rule has been revised seven times since October 2009. Further, EPA is currently amending 40 CFR Part 98, Subpart W and, it is anticipated that revisions and amendments to the reporting regulation will continue. SEU understands that ARB cannot incorporate by reference EPA revisions that are not vetted in the public process but it is critical to make changes to the MRR in a timely fashion. Most importantly the MRR needs to be amended within the reporting cycles to ensure accuracy and credibility for the cap-and-trade program. As detection and quantification mechanisms continue to evolve it is imperative that ARB recognize the need and establish a dynamic process to manage inconsistencies of outdated greenhouse gas monitoring methods which even now exist between the ARB and US EPA regulations. [FF 55.14 – SEU]

Response: As the commenter suggests, it is not legally possible for the ARB to reference a "moving target" because this would not provide regulatory certainty. In addition, revisions to the federal regulations could potentially undermine ARB program needs. This makes it necessary to refer to fixed U.S. EPA requirements as of a specific date, and where necessary to support the cap-and-trade program, provide modifications in the ARB regulation. Staff will revisit the regulation as is practicable, and make revisions where possible to harmonize with U.S. EPA requirements and minimize inconsistent requirements.

M-2. Abandon Regulation

Comment: Abandon the regulation because it is pointless to reduce CO_2 emissions. [FF 01.01 – TP]

Response: This comment is not relevant to the proposed changes.

M-3. Amendments to U.S EPA Requirements

Comment: WSPA would like clarification on how EPA amendments will be handled. In particular, ARB should defer enforcement for all 40 CFR 98 parts which are under legal challenge. [FF 11.63 – WSPA]

Response: ARB will continue to monitor changes in U.S. EPA reporting requirements, and will propose amendments that are consistent with California's GHG regulatory program needs when appropriate, through regulatory processes consistent with the Administrative Procedures Act. Because California regulations cannot be immediately amended following federal action, however, there are likely to be some periods of inconsistency. In addition, ARB staff does not believe it appropriate to defer enforcement of provisions that might change due to pending or future legal challenges to the federal regulation. California's regulations are separate from federal regulations.

§95101 Applicability

M-4. Alignment with EPA Requirements and Biomass Exclusion

Comment: Propose comprehensive alignment of the CARB GHG reporting requirements with those at the Federal level. USEPA excludes "carbon dioxide emissions from the combustion of biomass, but include[s] emissions of CH_4 and N_2O from biomass combustion" in the GHG emission calculation for comparison to the federal reporting threshold (40CFR 98.2(b)(2)). As such, CARB should remove the inclusion of CO_2 from biomass combustion in the 10,000 metric ton reporting threshold as is proposed by 95101(b)(4). [FF 22.01 – CCCSD]

Response: After it was determined that biomass-derived fuels would not be required to have a compliance obligation for their CO_2 emission under the cap-and-trade regulation, it became clear that simple reporting of biogenic emissions would not be rigorous enough for avoiding a compliance obligation. In regards to this issue, ARB assessed the following concerns: 1) the motivation to over-report biomass-derived fuels would be high because of the avoided compliance obligation; 2) some biomass-derived fuels, mainly manure digester gas, had the potential for receiving double credit for emissions reductions once as an offset, and then again as a biomass-derived fuel without a compliance obligation); and 3) there was a need to prevent the simple redirection of biomass-derived fuels from other states to California because of the increased economic incentive, amounting in effect to resource shuffling without real reductions in emissions overall. To address these concerns, ARB determined that rigorous methods needed to be put in place to protect the integrity of the cap-and-trade program, and biomass reporting could not reasonably be excluded. See also pages 36-38 of the Staff Report.

M-5. Exemption for Biomass Fuels

Comment: USEPA explicitly exempts the GHG emissions from co-fired fossil fuel and biomass combustion for biomass fuels not listed in their Table C-1 and in units less than 250 mmBTU/hr per 40 CFR 98.33(c) and (e). As such, CARB should include a similar exemption for GHG emissions from co-fired biomass combustion under sections 95101(b), 95103(j), and 95115(e). [FF 22.02 – CCCSD]

Response: See Response to M-4.

M-6. Raise Reporting Threshold for All Reporters

Comment: USEPA has a reporting threshold of 25,000 metric tons of CO_2e for facilities that are not specifically listed in their Tables A-3 and A-4 and have an aggregate maximum rated heat input capacity of 30 mmBTU/hr or greater (40 CFR 98.2(a)(3)). As such, CARB should replace the 10,000 metric ton reporting threshold proposed in 95101(b)(3) to 25,000 metric tons of CO_2e. [FF 22.03 – CCCSD]

Response: ARB declines to make the requested change because the reporting threshold of 10,000 metric tons of CO_2e is necessary to support an effective cap-and-trade program. As described in the Staff Report (pages 22-23), it is important to monitor the effects of the cap-and-trade threshold on both emissions leakage below the cap and on business competitiveness above it. As a result, the lower threshold was implemented, which is consistent with Western Climate Initiative design. However, to minimize the reporting burden, the regulation includes limited and simplified reporting requirements for the smaller facilities under the cap-and-trade threshold, and does not require third-party verification for these reporters.

M-7. Reporting Threshold and U.S. EPA Harmonization

Comment: Facilities and suppliers with emissions between 10,000 metric tons and 25,000 metric tons of CO_2E would be included in the mandatory reporting program, but would have abbreviated reporting requirements. These reporters would report their combustion emissions using default emission factors or any other method of their choosing from the U.S. EPA regulation (USEPA MRR 2009-2010). They would also report process emissions, although these are unlikely to occur at facilities of this size. CIPA objects to these reporting requirements. Requiring reporting below 25,000 tons from parties with no compliance obligations will be costly, create confusion, is in no way a "harmonization" with US EPA reporting requirements and only serves to align with the Western Climate Initiative at a time when CARB is adopting a cap and trade scheme that encompasses California only. The mandatory reporting requirement threshold should remain aligned with the US EPA standard of 25,000 $MTCO_2e$. [FF 42.01 – CIPA]

Response: To simplify reporting, while still meeting program needs, the requirements to include process, fugitive, or vented emissions in determining applicability for abbreviated reporting, were removed. Also removed was the requirement to report these emissions. Regarding the reporting threshold, please refer to Response to M-6.

M-8. Base Emissions Threshold on Only Fossil Fuel Combustion Emissions
Comment: Consistent with U.S. EPA, recommend that all facilities without a cap-and-trade compliance obligation and that emit less than 25,000 metric tons of anthropogenic CO_2e be exempt from CO_2e be exempt from verification requirements. That is, base the emissions threshold for verification strictly on fossil fuel combustion emissions and exclude biomass emissions. [FF 16.02 – LACSD, FF 18.01 – SCAP]

Response: ARB believes it is important to monitor biomass-derived fuel usage and emissions in response to GHG control programs. As the use of biofuels grows, the information reported will help California understand the role of these fuels in reducing anthropogenic emissions, help ensure such growth is environmentally sustainable, and allow California to know overall emissions of greenhouse gases from sources above reporting thresholds. It is also very important to ensure that fuels claimed as biomass-derived are verified as biomass-derived, to prevent any claims that would inappropriately and unfairly reduce or eliminate a compliance obligation. Understanding the nature of these fuels, however, ARB has modified the MRR to provide further flexibility with respect to biomass-derived fuel measurement.

M-9. Report Individual Facility and Aggregated Data
Comment: Aggregation of Reporting Data for Biomass Facilities with Emissions between 10,000 and 25,000 $MTCO_2e$ Annually. We understand that facilities with emissions of greater than 10,000 metric tons of CO_2e but less than the 25,000 metric ton CO_2e threshold for inclusion in the Cap and Trade program are required to report their gross annual emissions, but are not subject to the more detailed reporting requirements in the MRR. Given that we expect much of the growth in the biomass industry to be small facilities, we urge ARB to both report emissions from individual facilities and to aggregate the reporting from all such facilities in California so that we can monitor whether there are significant emissions increases coming from biomass facilities with emissions in this range. [FF 10.02 – EC]

Response: Data will be collected and segregated in such a way that data from the smaller facilities can be aggregated and analyzed on the basis of the fuel types used (such as biomass). No change to the regulation is needed.

M-10. Applicability for Electric Generating Facilities
Comment: The applicability provisions unintentionally exclude electric generating facilities exempt from the Acid Rain Program from the reporting requirements of

the MRR, even though such facilities will be subject to a compliance obligation under the Proposed cap-and-trade regulation. [FF 30.03 – CALPINE]

Response: ARB agrees and has modified the applicability language to clarify that such facilities are included.

M-11. Applicability for Petroleum and Natural Gas Systems

Comment: Section 95101(e) for Petroleum and Natural Gas Systems seems to require that for any facility that has sub facilities which meeting the definition of more than one of the facilities identified in the list of eight facilities, all of the sub facilities may require separate individual reports. For example if an underground storage facility is co-located with transmission compression equipment, will ARB treat that facility as a single facility or as two separate facilities? Clarification is required since dual reporting will lead to overlap and duplication. It is recommended that ARB adopt referenced EPA guidance language which requires the reporter to determine the industry segment for which the majority of emissions occur and report all equipment within that facility for which there is a method defined. [FF 55.16 – SEU]

Response: The definitions of "facility" and "onshore petroleum and natural gas production facility" would define the boundaries for an emissions report. In the commenter's example, if the underground storage facility and the transmission compression equipment are "located on one or more contiguous or adjacent properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and under common ownership or common control," they would be reported together. This appears to be consistent with the referenced U.S. EPA guidance in the commenter's footnote.

M-12. Reporting for Electricity Importers

Comment: Several sections of the MRR reference EPA's reporting regulations and the desire for ARB's reporting regulations to align with the EPA regulations as much as possible. However, the EPA reporting regulations do not require the reporting of imported electricity, yet ARB regulations do. Metropolitan asks that ARB incorporate the specific sections and language of the EPA reporting/recordkeeping provisions that apply specifically to electricity importers, rather than simply cross referencing the EPA regulations. [FF 13.04 – MWDSC]

Response: The commenter is correct that U.S. EPA does not require the reporting of imported electricity, while the ARB regulation does. Imported electricity is a large and critical source category for which reporting is specifically required under AB 32. ARB agrees that facility recordkeeping provisions previously referenced for electricity importers were not appropriate, and has added specific provisions for these entities in section 95105(d).

M-13. Exclude Certain Activities for CO_2 Suppliers

Comment: The definition of the carbon dioxide supplier category at §95102(a)(59) does not contain the list of excluded activities, shown below, that is in EPA's GHG reporting regulation at 40 CFR 98.420(b): storage of CO_2 above ground or in geologic formations; use of CO_2 in enhanced oil and gas recovery; transportation or distribution of CO_2; purification, compression, or processing of CO_2; on-site use of CO_2 captured on site. The absence of these exclusions will under §95101(c)(9) result in the reporting of CO_2 that is not emitted to the atmosphere and in a manner that is inconsistent with federal GHG emission reporting, which imposes an unnecessary burden on California reporters. Furthermore, since there are no provisions in 40 CFR Subpart PP for calculating the quantity of CO_2 associated with the excluded activities at 40 CFR 98.420(b), it is impossible for a carbon dioxide supplier to comply with the requirement at §95123. [FF 11.71 – WSPA]

Response: ARB agrees that the source category does not include transportation or distribution of CO_2; purification, compression, or processing of CO_2; or on-site use of CO_2 captured on-site. The definition of carbon dioxide supplier has been revised accordingly. Other CO_2 that is produced, imported or exported must be reported regardless of whether it has been stored or used in enhanced oil and gas recovery. The mass of such CO_2 should be counted only once.

M-14. Harmonize Reporting for CO_2 Suppliers

Comment: Harmonize CARB and EPA rules by excluding certain carbon dioxide supplier activities from the mandatory GHG reporting program. Section 95101(c)(9) of the rule requires "carbon dioxide suppliers" to report under section 95123 emissions of CO_2 and to comply with Subpart PP of 40 CFR Part 98 (98.420 to 98.428) in reporting CO_2 emissions to ARB. The proposed definition of "carbon dioxide supplier" at 95102(a)(59) omits the following list of activities that are excluded from EPA's carbon dioxide supplier GHG reporting regulation in Subpart PP, at 40 CFR 98.420(b): storage of CO_2 above ground or in geologic formations; use of CO_2 in enhanced oil and gas recovery; transportation or distribution of CO_2, purification compression, or processing of CO_2; on-site use of CO_2 captured on site. The carbon dioxide supplier activities excluded by Subpart PP are not designed to emit CO_2 to the atmosphere. For California CO_2 suppliers, the failure to exclude these activities creates a reporting obligation under 95101(c)(9) and 95123 for CO_2 that is not emitted to the atmosphere by the supplier. It also unnecessarily increased the administrative burden on California suppliers by requiring two separate protocols of the same activities. Also, because there are no provisions in Subpart PP for calculating the quantity of CO_2 associated with the excluded (and non-emitting) activities, it is impossible for a carbon dioxide supplier to comply with the requirement of proposed section 95123 that carbon dioxide suppliers comply with Subpart PP. Reporters cannot determine the required reporting method. Recommend that ARB harmonize with EPA rules, and sections 95105(c)(9) and 95102(a)(59) should be amended to exclude the five specific activities listed previously. [FF 20.01 – OP]

Response: See Response toM-13. ARB has attempted to harmonize with the U.S. EPA GHG reporting rule wherever possible, including for Suppliers of CO_2.

M-15. Program Requirement Beyond EPA Requirements, Producing Additional Costs
Comment: There are several areas ARB has identified and specifically required additional monitoring, record keeping, data collection procedures, including more stringent meter calibration requirements that go above and beyond what is currently required under the Federal EPA Mandatory Reporting program. CLFP is concerned that CARB has not fully vetted the impacts on facilities through a cost analysis. The impacts of the additional requirements will be cumulative on the food processors, as well as impacting the individual companies. Additionally, CLFP believes such an analysis could show excessively high costs for very little additional accuracy or benefit from the more rigorous requirements. Despite the cap-and-trade being a California-only endeavor which will only raise costs for all Californians at time of economic downturn and stress; nevertheless, CARB should avoid California regulations that diverge from federal standards. These additional requirements will add on to the burdens on California businesses that make them less competitive and more at risk. CLFP urges CARB to provide the necessary analysis to support the proposition that California MRR requirements should be more stringent then the Federal EPA MRR program. In addition, CLFP requests, pursuant to the necessary cost impact analysis, there should be an analysis of what, if any, difference in overall emission estimates will result in more stringent requirements compared to the emission estimates based on the Federal EPA MRR reporting program. [FF 45.03 – CLFP]

Response: ARB attempted to carefully balance the need for additional accuracy against the additional resources required by reporters to meet the requirements. ARB avoided deviating from the baseline U.S. EPA requirements unless absolutely necessary to support the more stringent requirements of a cap-and-trade system. In the regulatory fiscal analysis, ARB determined that differences from the U.S. EPA reporting program do produce additional costs, when compared to a U.S. EPA-only reporting program (see Response to M-16 for full reference). However, the manner that ARB staff implemented the reporting program, by harmonizing with U.S. EPA, also produces certain cost-savings versus the option of developing a completely stand-alone ARB reporting program that has no association to the U.S. EPA greenhouse gas reporting program. These savings result from providing generally consistent methodologies, requirements, and reporting systems. Related to the comment about potential differences in emission estimates between ARB and U.S. EPA reporting programs, the key element is not whether there are emissions differences between the programs, which is not necessarily helpful information. Instead, the key element is to include rigorous, transparent, and verifiable methods to guarantee, to the extent feasible, that complete, accurate, and truthful data are reported. So, even if ARB and U.S. EPA reported numbers are similar, the ARB data would, as the regulation has been designed, have a higher degree of

confidence and certainty versus U.S. EPA-reported data. ARB believes this additional rigor is absolutely required as emissions become a marketable commodity via the cap-and-trade program.

M-16. ARB and EPA Program Requirements Differ, Costs Could be Excessive
Comment: The ARB MRR requirements exceed federal EPA reporting requirements in many respects, including monitoring, record keeping, data collection procedures, and more stringent meter calibration requirements. CMTA is concerned that ARB has not done a thorough and transparent cost-benefit impact analysis for those additional requirements. We believe such an analysis could show excessively high costs for very little additional accuracy or benefit from the more rigorous requirements. Wherever possible we should avoid California regulations that diverge from federal standards and put burdens on California businesses that make them less competitive and more at risk. [FF 29.05 – CMTA]

Response: ARB has attempted to minimize differences with federal reporting requirements. However, complete synchronization was not possible because the ARB and U.S. EPA programs are designed to meet differing needs, with the ARB program serving the needs of a market-based cap-and-trade program. Regarding the cost analysis, costs (and at times, savings) are fully analyzed and described in Chapter VI of the Staff Report.

M-17. Consider Costs of Differences Between ARB and U.S. EPA Programs
Comment: CARB requires more stringent reporting than the U.S. EPA program. While understanding the need for additional data, we are very concerned that CARB has not done a through and transparent cumulative and individual cost analysis of impacts, of the AB 32 MRR requirements that exceeds the Federal MRR program. In addition to such cost impact analysis, there should be an analysis of the difference in overall emission estimates as a result of a more stringent requirements compared to the emission estimates based on the Federal EPA MRR reporting program. It is important to have a balance between time, resources and costs incurred by facilities prior to determining whether more stringent criteria requirements above the Federal MRR are necessary and whether these more stringent criteria will result in any measureable GHG reporting difference. It is imperative to assess the ability of California business to continue to operate and remain competitive with the rest of the nation under CARB's proposed requirements. Request that CARB conducts an analysis comparing the more stringent MRR requirements to the Federal EPA MRR program, with consideration of all costs and showing the difference in emission estimates. [FF 53.05 – CCC]

Response: See Responses to M-15 and M-16.

M-18. Exempt Irrigation Pumps

Comment: The proposed changes do not fully align with the adopted language in Board Resolution 10-43 as it relates to agricultural irrigation pumps, "Staff also proposes to add language to section 95101(f) excluding agricultural irrigation pumps from reporting, consistent with U.S. EPA." Section 95101(f) states, "Portable equipment, including agricultural irrigation pumps, except where specifically required to report under 40 CFR Part 98 of this article". We believe that in order to be more accurate and consistent with the adopted resolution, the reference to agricultural irrigation pumps should be separated from the portable equipment exclusion. As it is currently written, it is not clear that stationary agricultural irrigation pumps and not just those that are "portable" are excluded. We propose that reference to agricultural irrigation pumps have a separate exclusion from the "portable equipment" exclusion to align with the Federal program and with the intent of the language in Resolution 10-43. [FF 54.01 $AGCO_2$]

Response: The change requested by the commenter was incorporated to clarify the reporting requirements.

M-19. Exclusion for Livestock Operations

Comment: CCA applauds the Air Resources Board (ARB) for including language in the MRR section (f)(7) that clarifies that emissions from livestock operations are not subject to the MRR provisions, and the alignment of the MRR with the federal mandatory reporting program will not apply to 40 Federal Code of Regulations Part 98, Subpart JJ. This clause is consistent with the fact that greenhouse gas emissions associated with livestock production both in California and at the national level are negligible. Almost all emissions associated with livestock production are biogenic and are the result of ruminant animals converting feed and forage to energy during digestion and therefore cannot be controlled. CCA appreciates the opportunity to comment on the 15 day changes proposed to the MRR and would urge ARB to incorporate the suggestions noted above in the final regulations. [FF 24.01 – CCA]

Response: The regulation has been revised to specifically exclude reporting requirements for livestock emissions.

M-20. Exclude Certain Activities for CO_2 Suppliers

Comment: The definition of the carbon dioxide supplier category at §95102(a)(59) does not contain the list of excluded activities, listed, that is in EPA's GHG reporting regulation at 40 CFR 98.420(b): storage of CO_2 above ground or in geologic formations; use of CO_2 in enhanced oil and gas recovery; transportation or distribution of CO_2; purification, compression, or processing of CO_2; on-site use of CO_2 captured on site. The absence of these exclusions will under §95101(c)(9) result in the reporting of CO_2 that is not emitted to the atmosphere and in a manner that is inconsistent with federal GHG emission reporting, which imposes an unnecessary burden on California reporters.

Furthermore, since there are no provisions in 40 CFR Subpart PP for calculating the quantity of CO_2 associated with the excluded activities at 40 CFR 98.420(b), it is impossible for a carbon dioxide supplier to comply with the requirement at §95123. [FF 11.71 – WSPA]

Response: ARB agrees that the source category does not include transportation or distribution of CO_2; purification, compression, or processing of CO_2; or on-site use of CO_2 captured on-site. The definition of carbon dioxide supplier has been revised accordingly. Other CO_2 that is produced, imported or exported must be reported regardless of whether it has been stored or used in enhanced oil and gas recovery. The mass of such CO_2 should be counted only once.

M-21. Harmonize Reporting for CO_2 Suppliers

Comment: Harmonize CARB and EPA rules by excluding certain carbon dioxide supplier activities from the mandatory GHG reporting program. Section 95101(c)(9) of the rule requires "carbon dioxide suppliers" to report under section 95123 emissions of CO_2 and to comply with Subpart PP of 40 CFR Part 98 (98.420 to 98.428) in reporting CO_2 emissions to ARB. The proposed definition of "carbon dioxide supplier" at 95102(a)(59) omits the following list of activities that are excluded from EPA's carbon dioxide supplier GHG reporting regulation in Subpart PP, at 40 CFR 98.420(b): storage of CO_2 above ground or in geologic formations; use of CO_2 in enhanced oil and gas recovery; transportation or distribution of CO_2, purification compression, or processing of CO_2; on-site use of CO_2 captured on site. The carbon dioxide supplier activities excluded by Subpart PP are not designed to emit CO_2 to the atmosphere. For California CO_2 suppliers, the failure to exclude these activities creates a reporting obligation under 95101(c)(9) and 95123 for CO_2 that is not emitted to the atmosphere by the supplier. It also unnecessarily increased the administrative burden on California suppliers by requiring two separate protocols of the same activities. Also, because there are no provisions in Subpart PP for calculating the quantity of CO_2 associated with the excluded (and non-emitting) activities, it is impossible for a carbon dioxide supplier to comply with the requirement of proposed section 95123 that carbon dioxide suppliers comply with Subpart PP. Reporters cannot determine the required reporting method. Recommend that ARB harmonize with EPA rules, and sections 95105(c)(9) and 95102(a)(59) should be amended to exclude the five specific activities listed previously. [FF 20.01 – OP]

Response: See Response to . ARB has attempted to harmonize with the U.S. EPA GHG reporting rule wherever possible, including for Suppliers of CO_2.

M-22. Exclusion for Coal Storage Fugitive Methane Emissions

Comment: Add the following exclusion: 95101(f)(9) Fugitive methane emissions from coal storage. [FF 12.01 – CSCME]

Response: Fugitive methane emissions from coal storage are not part of the incorporated U.S. EPA reporting requirements. The suggestion provides

additional clarity and specificity, however, and the regulation was modified accordingly.

M-23. Facility Applicability Inconsistency

Comment: With the 15-day modifications to the regulation, there appear to be several sources in California that may not be required to report emissions, specifically those electricity generating units that do not report CO_2 mass emissions year around through 40 CFR Part 75 and general stationary combustion sources, since they are not listed in Tables A-3 and A-4. These sources were previously required to report prior to the 15-day modifications being included. We believe that CARB did not desire to have these facilities not report their GHG emissions. This belief is reinforced by proposed section 95105(b)(3), which not only references 40 CFR Part 98.2(a)(3) but lowers the threshold for reporting. [FF 16.01 – LACSD]

Response: ARB agrees with the comment and has modified section 95101(a) to correct this oversight.

M-24. Exclude BPA and WAPA from Reporting

Comment: While Western Area Power Administration (Western) appreciates the changes made by CARB to allow voluntary participation, Western, a federal agency, continues to express concerns that CARB's regulations include Western as a regulated entity. Western respects the state's initiatives to implement its cap and trade regulations for greenhouse gases; however, Western is bound by federal laws and regulations. The Supremacy Clause of the United States Constitution does not allow a state to directly regulate the federal government without its consent or within a field regulated entirely by the federal government. Western understands CARB believes the Clean Air Act provides a waiver of sovereign immunity for these regulations. While Section 118 of the Clean Air Act, 42 U.S.C. § 7418, provides a limited waiver of sovereign immunity and under certain circumstances requires federal facilities to comply with federal, state, interstate and local requirements for the abatement of air pollution to the same extent as any nongovernmental entity, under the Act, there must be an action by the United States to delegate authority over cap and trade for greenhouse gases to the state before a federal agency may comply with state regulations. There have been cap and trade initiatives associated with greenhouse gas regulations before both the U.S. Congress and Environmental Protection Agency (EPA). However, as of this writing, Western understands neither the U.S. Congress nor the EPA have promulgated any such cap and trade laws or regulations. While Congress or EPA may decide to implement cap and trade for greenhouse gases, until such time, there is no waiver of sovereign immunity and Western does not have authority to bind Congress, EPA or other federal agencies with jurisdiction over such matters. Furthermore, these regulations that CARB is proposing to promulgate directly impact Western's primary mission of marketing federal power, a field regulated entirely by the federal government. Therefore, Western

continues to believe the regulations should not include Western as a regulated party.

In our conversations with your staff, Western understands the importance of having all in-state utilities participate (either on a mandatory or voluntary basis). In the past, Western has worked with state agencies, including CARB, to provide information the state needs. For instance, Western voluntarily reports its greenhouse gas emissions to assist the state in meeting its goals. While Western is willing to work with CARB to meet the state's needs, Western ultimately determines, through its own process, if, how and to what extent it will participate. Western will continue to work with the state and may voluntarily participate in cap and trade, however, at this time; Western cannot consent to direct state regulation. In an effort to foster cooperation, Western has met with CARB. Western appreciates the changes made to the program to allow voluntary participation and to provide Western with an allocation. In light of this cooperative relationship, Western is providing further comments based on our last discussion. Western understands that when determining a utility's allocation of allowances, CARB will assume the RPS obligation in a utility's resource mix even if that utility has not reported its RPS or is not under an RPS obligation. The assumed RPS obligation used by CARB will effectively reduce the amount of unspecified resources, and subsequently the allowances allocated to that utility. Western is not required to comply with California's RPS. However, Western's primary mission is to market the power generated from the Bureau of Reclamation's hydro generation facilities. The Sierra Nevada Region markets approximately 2,500 GWh annually to its end-use customers. On average, approximately 50 percent of that load is served with large hydro resources, a null greenhouse emitting resource. Western understands the goal under both the RPS and the Cap and Trade is to reduce greenhouse gas emissions. Western is already serving its load with an average of 50 percent greenhouse gas emission-free resources (well above the RPS requirements) and, therefore, should be allocated allowances based on its total reported unspecified resources.

Western has also received a copy of Bonneville Power Administration's comments in this proceeding. Western concurs with Bonneville Power Administration and urges CARB to modify sections 95101(d)(5), 95102(a)(118), and 95802(a)(84) (same definition of "Electricity importers" as the definition used in § 95102(a)(118)) in one of two ways: either by deleting the unnecessary language entirely, as indicated in strikethrough; or, by modifying it as indicated in underline. The excerpts below illustrate both options for each of the three sections.

DELETE OPTION FOR § 95101:
(d) *Electric Power Entities.* The entities listed below are required to report under this article:
(1) Electricity importers and exporters, as defined in section 95102(a);

(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
~~(4) Western Area Power Administration (WAPA);~~
~~(5) Bonneville Power Administration (BPA).~~

OR MODIFICATION OPTION FOR § 95101:
(d) *Electric Power Entities.* The entities listed below are required to report under this article:
(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
(4) Western Area Power Administration (WAPA)<u>, unless it voluntarily reports under these regulations</u>;
(5) Bonneville Power Administration (BPA)<u>, unless it voluntarily reports under these regulations</u>.

DELETE OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(118) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~<u>S</u>tate agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB.

OR MODIFICATION OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(118) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~<u>S</u>tate agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). <u>Federal agencies, including Western Area Power Administration (WAPA) and Bonneville Power Administration (BPA), may voluntarily report under these regulations.</u> When PSEs are not subject to the

regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB. [FF 04.01 – WAPA]

Response: See Response to A-40. ARB appreciates WAPA's participation in the programs operated by ARB.

M-25. Applicability of BPA to Regulation

Comment: BPA strongly disagrees with ARB's suggestions in its greenhouse gas reporting rules and cap & trade rules that it has "authority" to regulate BPA and that BPA is "required" to comply. §§ 95101(d)(5), 95102(a)(118), 95802(a)(84). BPA wishes to make clear that BPA is participating in California's GHG reporting program and cap & trade program purely on a voluntary basis, and BPA is not conceding that California has any jurisdiction over BPA. Sovereign immunity may prevent BPA (and similarly WAPA) from being subject to these regulations. Despite ARB's position that the Clean Air Act waives sovereign immunity, it is questionable whether that waiver would cover BPA because it is purely a marketer that is not engaged in an activity that discharges pollutants. Further, although BPA intends to voluntarily comply with these regulations, BPA is concerned that mandatory regulations could interfere with its existing contracts and conflict with the marketing scheme established by Congress in BPA's governing statutes.

In any event, these two rulemaking proceedings are not well-suited as forums for resolving these issues. Moreover, because BPA is willing to voluntarily comply, it is not necessary for ARB to include these jurisdictional assertions in its rules. Doing so could unnecessarily raise complicated legal issues that are unnecessary to full and timely implementation of the greenhouse gas reporting rules and/or the cap & trade program. Accordingly, BPA urges ARB to modify sections 95101(d)(5), 95102(a)(118), and section 95802(a)(84) (same definition of "Electricity importers" as the definition used in § 95102(a)(118)) in one of two ways. Either by simply deleting the unnecessary language entirely, as indicated in strikethrough. Or, by modifying it as indicated in underline. The excerpts below illustrate both options for each of the three sections.

DELETE OPTION FOR § 95101:

(d) *Electric Power Entities.* The entities listed below are required to report under this article:

(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
~~(4) Western Area Power Administration (WAPA);~~
~~(5) Bonneville Power Administration (BPA).~~

OR MODIFICATION OPTION FOR § 95101:
(d) *Electric Power Entities.* The entities listed below are required to report under this article:

(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
(4) Western Area Power Administration (WAPA), unless it voluntarily reports under these regulations;
(5) Bonneville Power Administration (BPA), unless it voluntarily reports under these regulations.

DELETE OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(118) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~State agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB.

OR MODIFICATION OPTION FOR § 95102:
(a) For the purposes of this article, the following definitions shall apply:
(118) "Electricity importers" are marketers and retail providers that hold title to imported electricity. For electricity delivered between balancing authority areas, the entity that holds title to delivered electricity is identified on the NERC e-Tag as the purchasing-selling entity (PSE) on the tag's physical path, with the point of receipt located outside the state of California and the point of delivery located inside the state of California. ~~Federal and s~~State agencies are subject to the regulatory authority of ARB under this article and include ~~Western Area Power Administration (WAPA), Bonneville Power Administration (BPA), and~~ California Department of Water and Power (DWR). Federal agencies, including Western Area Power Administration (WAPA) and Bonneville Power Administration (BPA), may voluntarily report under these regulations. When PSEs are not subject to the regulatory authority of ARB, including tribal nations, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB. [FF 02.02 – BPA]

Response: See Response to A-40.

M-26. Compliance Period Definition
Comment: "Compliance Period" definition should reflect new two-year period. “Compliance period” is defined in § 95102(a)(84) (p. 21) of the Regulation as a three year period. However, the first compliance period under the cap-and-trade regulation is now a two-year period, 2013-2014, under § 95802(a)(55) (C&T p. 11). The definition in the Regulation should be revised to match the definition in the cap-and-trade regulation. [FF 49.01 – SCPPA]

Response: ARB agrees and has made this change.

M-27. Electricity Importers Definition
Comment: Modify definitions for "electricity importers" to exclude BPA and WAPA from mandatory reporting. [FF 02.03 – BPA, FF 04.02 – WAPA]

Response: See Response to A-40.

M-28. MMBtu Unit
Comment: The regulation defines MMBtu in section 95102(a)(238). This term is used interchangeably with "mmBtu" in the regulation, which is incorrect because "m" means thousandth. [FF 05.01 – REU]

Response: The regulation was modified to use the term MMBtu consistently throughout the regulation, which means thousand-thousand (or million) British Thermal Units.

M-29. Cogeneration- the Use of the Word “Onsite”
Comment: This comment seeks modification to the cogeneration definition included in the updated reporting regulations. As noted below, the current definition creates an ambiguity and fails to ensure alignment with the current California regulatory framework that defines and governs cogeneration. The Revised Regulation defines define cogeneration in a manner that requires “onsite generation”: (72) “Cogeneration” means an integrated system that produces electric energy and useful thermal energy for industrial, commercial, or heating and cooling purposes, through the sequential or simultaneous use of the original fuel energy. Cogeneration must involve onsite generation of electricity and useful thermal energy and some form of waste heat recovery.” (Emphasis added.) The use of the term “onsite,” which is not defined in the regulation, creates an ambiguity. The ambiguity arises from the fact that some facilities use cogeneration thermal or electric energy that is not produced onsite, but “over the fence”, on the site of another entity. The use of the term “onsite” in the current cogeneration definition could be interpreted to exclude these over-the-fence transactions that are currently permitted. To eliminate any ambiguity that could adversely impact the current regulatory framework governing cogeneration, the

following modification should be incorporated: (72) “Cogeneration” means …. energy. Cogeneration must involve onsite the generation of electricity and useful thermal energy and some form of waste heat recovery. Some examples of cogeneration include power production. [FF 31.01 – EPUC/CAC]

Response: Electricity and thermal energy produced by "over the fence" cogeneration units that are outside of the facility boundary must be reported by the thermal host or electricity end-user facility as "electricity purchased or acquired" under section 95104(d)(1). As long as the cogeneration facility and the thermal host/electricity end-user facility draw their facility boundaries correctly, ARB believes that the regulatory provisions are clear. However, and although ARB does not believe the word “onsite” has the effects that the stakeholder is concerned about, the removal of the word "onsite" from this definition does not have any effects on rule applicability and source categorization. Thus, the change has been incorporated.

M-30. Global Warming Potential

Comment: In 95102 under the definition of "Global warming potential" the use of "trace substance" is confusing and should be replaced with a specific reference to the six regulated greenhouse gases. [FF 16.03 – LACSD, 18.02 – SCAP]

Response: This definition is consistent with the U.S. EPA definition and with how global warming potential is defined in the scientific community. ARB believes the MRR is clear about which GHGs are covered by the rule. Therefore, no change has been made.

M-31. Carbon Dioxide Equivalent

Comment: The only reference regarding the "determination of CO_2 equivalence" using the GWPs in Table A-1 of the U.S. EPA regulation is contained in the section for calculating and reporting *de minimis* emissions. Suggest that this reference be moved to the definition of "carbon dioxide equivalent."

Response: ARB agrees with the comment and has included a reference to Table A-1 of 40 CFR Part 98 in the definition of "carbon dioxide equivalent."

M-32. Cogeneration- Inclusion of Combined Cycle Power Plant

Comment: Definition (72): The definition of “Cogeneration” should be clarified to state that combined cycle electric generating units are not included. Definition (72) “Cogeneration” includes the following example “…Some examples of cogeneration include: (a) a gas turbine or reciprocating engine generating electricity by combusting fuel, which then uses a heat recovery unit to capture useful heat from the exhaust stream of the turbine or engine;…” This example could be interpreted as describing a combined cycle electricity generating unit. To avoid uncertainty, we recommend this definition be clarified to state that combined cycle electricity generating units are not considered cogeneration units. [FF 51.01 – LADWP]

Response: ARB has made this change to the definition of "cogeneration" to indicate that it does not include combined cycle electricity generating units.

M-33. Facility Definition

Comment: "Facility" definition should allow for separation based on different ownership. The definition of “facility” should be revised so that where there are different electricity generating units or sets of units on the same site with common operational control but different ownership, the operator should be permitted to classify the units or sets of units as separate facilities for reporting purposes. This will enable emissions liability to be appropriately assigned to facilities. Electricity generating units can have complex ownership and operational structures. The owner of the land on which a unit stands, the owner(s) of the unit, and the owner(s) of the power generated by that unit, may be different entities or groups of entities. The operator of the units may be one of those owners or another entity altogether. Units on the same property may be owned by different entities. The definition of “Facility” in § 95102(a)(140) of the Regulation would not allow separate reporting. The definition treats structures located on contiguous or adjacent properties that are under common ownership or common control as one facility. Only operators of military installations are given the option of classifying their installations as more than a single facility based on distinct functional groupings. Similar flexibility should be extended to the operators of generating units to allow for the kinds of ownership and operational arrangements that are exemplified by Magnolia. Therefore the definition of “Facility” in § 95102(a)(140) (p.28) of the Regulation should be amended as provided. [FF 49.02 – SCPPA]

Response: The suggested change would potentially allow a facility to break up into multiple smaller facilities that drop below the GHG reporting threshold or the cap-and-trade compliance obligation threshold. This could lead to leakage of emissions below the thresholds and undermine the program. In addition, for the situation described by the commenter, a division of the compliance obligation can be worked out among the affected parties. For these reasons ARB did not make the requested change.

M-34. Basin Facility Definition for Petroleum and Natural Gas Systems

Comment: WSPA has concerns with the basin wide facility definition for this the Petroleum and Natural Gas Systems sector. We request a delay of reporting for this sector until July 1, 2012. [FF 11.64 – WSPA]

Response: To provide as much consistency between ARB and the U.S. EPA GHG reporting requirements as possible, ARB adopted the same reporting footprint for the Onshore Oil and Gas sector used by U.S. EPA and WCI partners, which is at the basin level. To meet a variety of time-critical ARB program needs, it is not possible to delay the reporting deadline as requested. ARB will work to assist affected reporting entities in meeting deadlines.

M-35. Definition of CO_2 Supplier

Comment: The definition of CO_2 supplier should be clarified to be consistent with federal regulations and focus on upstream supply, so that downstream processors are not subject to redundant requirements for the same CO_2 streams. [FF 38.06 – ACCIG]

Response: The definition for "carbon dioxide supplier" was modified as suggested to clarify the source category.

M-36. Provisions for CO_2 Suppliers Should be Clarified

Comment: The provisions defining CO_2 suppliers should be clarified. Praxair was concerned that all entities involved in the industrial CO_2 gas supply chain would be required to report their operations, and potentially be subject to a direct compliance obligation under the cap-and-trade regulation. Praxair appreciates staff's informal clarification that regulating all entities in the supply chain was not staff's intent. Praxair requests CARB modify section 95102(a)(59) to remove entities that are not engaged in producing CO_2 from reporting under the MRR, and achieve greater consistency with the U.S. EPA reporting regulations. The CARB definition does not include the language in 40 CFR 98.420(b) which clarifies that the definition of CO_2 supplier is focused on upstream supply and excludes entities that purchase raw CO_2 from producers. To effectuate staff's intent, ensure consistency with the EPA's reporting requirements, and ensure that the cap-and-trade compliance obligation is not "pancaked" on multiple entities for the same activities, Praxair requests CARB include the following language from 40 CFR 98.420(b) in section 95102(a)(59) of the MRR. Additional clarifications are identified in underlined text and should be added to the definition. (b) This source category is focused on upstream supply. It does not cover: (1) Storage of CO_2 above ground or in geologic formations. (2) Use of CO_2 in enhanced oil and gas recovery. (3) Transportation or distribution of CO_2, unless such transport or distribution involves the import or export of bulk CO_2. (4) Purification, compression, or processing of CO_2. (5) Capture of CO_2 from a production process unit at an upstream facility under separate ownership and control. (6) On-site use of CO_2 captured on site. [FF 09.01 – PI]

Response: The definition for "carbon dioxide supplier" was modified to address the commenter's concern in part. Please see also Response to M-13.

M-37. Modify Definition of Standard Conditions

Comment: WSPA requests modification of the definition of standard conditions to use the EPA standard of 68 degrees F. [FF 11.35 – WSPA]

Response: The definition of "standard conditions" uses 68 degrees Fahrenheit. It states: "Standard conditions" or "standard temperature and pressure (STP)" means either 60 or 68 degrees Fahrenheit and 14.7 pounds per square inch

absolute. Moreover, ARB has retained both molar volume conversion factors to ensure that all reporters use the correct conversion factor for both temperatures which may be used to report gas volumes.

M-38. Inconsistency Between SCF and STP Temperature Conditions
Comment: WSPA points out that the definition of SCF is for 60 degrees F and this is inconsistent with STP definition which includes 68 degrees F. WSPA recommends using 68 degrees F to define SCF. [FF 11.36 – WSPA]

Response: Consistent with existing practice, ARB will continue to work with stakeholders to ensure successful program implementation, including through providing assistance on conversion to 68 degrees.

M-39. Align Enhanced Oil Recovery (EOR) Definition with EPA Definition
Comment: WSPA requests that ARB align the EOR definition with EPA version to include only super critical CO_2 EOR. [FF 11.67 – WSPA]

Response: ARB has included the other EOR activities that occur in California because these activities also result in significant emissions, and therefore is unable to completely align with the U.S. EPA definition. See also Response to A-1 regarding maintaining consistency with U.S. EPA's reporting requirements where possible.

M-40. Definition of Enhanced Oil Recovery (EOR)
Comment: Item (3) provides an exemption for "EOR operations that route produced water from separation directly to re-injection into the hydrocarbon reservoir in a closed loop system without any leakage to atmosphere". Section 95102(a)(128) appears to define "EOR" to include water flooding. Is this a correct interpretation? [FF 43.02 – MS]

Response: The commenter is correct that the definition of EOR in section 95102 (a)(132) includes water flooding.

M-41. HHV Range for Pipeline Quality Natural Gas
Comment: ARB's definition of pipeline quality natural gas is too restrictive for OPGP facilities that have several purchased and produced gases in a hydrocarbon basin. Below are some issues with this definition for an OPGP facility: (1) An operation may receive several utility-purchased gas streams, some with an HHV less than 970 Btu/scf and others with an HHV greater than 1,100 Btu/scf. These gases are otherwise similar, and have other characteristics of a pipeline quality natural gas. The HHV of a purchased gas usually ranges from 900 to 1,200 Btu/scf. Some purchased gases also have a methane concentration but high ethane concentration. However, according to 95115(f), such purchased gases that fall outside the range of pipeline quality as defined currently by ARB must be sampled and analyzed monthly. In addition, emissions from combusting these gases must be calculated using a different Tier.

(2) Monthly fuel sampling may indicate that a gas may be pipeline quality for one month and non-pipeline quality the next month. This will impact the selection of Tiers (Section 95115) for emissions calculations every month. (3) OPGP facilities will be required to monitor all purchased gases in addition to field gases. The operators will have to maintain two separate calculation methods, contrary to ARB's intention of aligning the two rules. (4) The additional monitoring and different tiers result in greater burden without improved data quality. Recommendation: WSPA is proposing that ARB revise the definition to include purchased gases. WSPA proposes the following definition: Pipeline quality natural gas is defined as *natural gas purchased from utilities or* natural gas having a high heat value (HHV) greater than *900* 970 Btu/scf and equal to or less than 1,100 *1,200* Btu/scf and which is at least ninety percent methane by volume, and which is less than five percent carbon dioxide by volume. [FF 11.68 – WSPA]

Response: For purposes of mandatory GHG reporting only, ARB has defined a range in composition of "pipeline quality natural gas" consistent with other WCI member jurisdictions. In work with WCI colleagues, ARB found that use of Tier 1 and Tier 2 methods for gas outside the specified range may often cause errors of 10 to 15 percent or more in CO_2 estimation. With errors that large, ARB disagrees with the statement that the additional monitoring and different tiers do not result in improved data quality. ARB believes the commenter's additional issues can be addressed through modifications to sampling and monitoring practices. ARB is open to re-visiting composition of pipeline quality gas in future regulatory updates if data is provided that demonstrate one or more of the specifications in the regulation is not needed to ensure accurate estimation of CO_2.

M-42. Well Pad and Well Terms Are Not Clearly Defined

Comment: The terms "located at a well pad" and "associated with a well pad" or "associated with wells" used in the definition of an "onshore petroleum and natural gas production facility" and in other places in the Regulation are not clearly defined in either 40 CFR Part 98 Subpart W or in ARB's MRR rule. As a result, operators of onshore oil and gas production facilities are each making their own interpretations of how to define their facilities to report 2011 emissions. There will likely be different interpretations by different operators, resulting in inconsistencies. If this reporting requirement brings new facilities into Cap and Trade or significantly increases reported emissions from facilities already in Cap and Trade, how will that affect the initial allocation process and those facilities' ability to comply with the requirements of the Cap and Trade Rule? (MWDSC3 C&T #157) [FF C&T 157 – MWDSC]

Response: The section in the U.S. EPA GHG reporting rule entitled "II. Reporting Requirements for Petroleum and Natural Gas Systems, D Summary of the Requirements for Petroleum and Natural Gas Systems" (Subpart W) clearly defines the coverage of the MRR in regards to well-pad associated equipment.

ARB has incorporated those provisions through the Federal Code of Regulations, Volume 75, No. 229, page 74461. Therefore, ARB does not believe that any revisions are required. This response does not address the portions of the comment focused on the cap-and-trade regulation.

M-43. Definitions of Facility Are Confusing

Comment: With the incorporation of the definition for "facility" into the revised MRR regulation, the proposed Cap and Trade Regulation now contains multiple and confusing references to the term "facility" as it applies to oil and gas production operations: The proposed Cap and Trade Regulation, section 95812(c)(4) states "The applicability threshold of oil and gas producers will be determined at the operating entity listed on the state well drilling permit or operating permit in accordance with section 95151(a)(1) of MRR. The applicability threshold for oil and gas producers is 25,000 metric tons or more of CO_2e per data year." In the amended MRR regulation, section 95151(a) refers to section 95150 for source categories and section 95101 for applicability. Section 95150 refers to federal regulations at 40CFR98.230(a)(1)-(a)(8). The citation at 40CFR98.238 defines onshore petroleum and natural gas production facility as "all equipment… in a single hydrocarbon basin". Finally, the proposed Cap and Trade Regulation section 95802(a)(95) defines "Facility" as "any physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right-of-way and under common ownership or common control, that emits or may emit any greenhouse gas." WSPA believes that the proposed Regulation should provide clear language stating that the "single hydrocarbon basin" definition from the MRR is to be used only for establishing GHG reporting requirements, which is consistent with federal regulations. However, compliance obligations under the Cap and Trade Regulation should be limited to "facilities" that exceed the 25,000 tpy threshold, where "facility" is defined as contiguous or adjacent properties under common control as defined under section 95802(a)(95). WSPA recommends that the proposed regulations reflect that the scope of the Cap and Trade compliance obligation for oil and gas production apply only to facilities, as defined in section 95802(a)(95) for contiguous or adjacent properties that exceed the 25,000 ton threshold. [FF C&T 66 – WSPA]

Response: ARB has revised several of the sections cited by the commenter in both regulations to achieve consistency in the definition of "onshore oil and gas production facility." The term is clearly defined in section 95102 of the MRR. The compliance obligation at these and other facility types in the oil and natural gas systems sector is specified in section 95852(h) of the cap-and-trade regulation. ARB will of course assist operators in answering any further questions on facility boundaries.

M-44. Regulation Creates Uncertainty Regarding Reporting Responsibility
Comment: Proposed Changes to the MRR Create Uncertainty in Reporting Responsibility and GHG Emission Compliance Obligation for Co-located Hydrogen Plants – Proposed changes in the state MRR create uncertainty as to which entity is responsible for submitting annual emissions reports and hence bears the compliance obligation under the cap and trade program. With the modifications proposed to the state MRR, particularly under §95114(a) which now is identical to the EPA MRR language [Subpart P of 40 CFR Part 98 §98.160(c)], some uncertainty as to the states' intent has been created. We seek confirmation that, notwithstanding the different interpretation by U.S. EPA, the responsibility for developing, submitting and certifying the GHG emissions data report under Article 2, §95104 of Title 17 and, subsequently, the obligation to satisfy an emission compliance obligation under Article 5, §95811(a), rests with the entity holding the permit to operate under the conditions described within the specific definitions of "Operational Control" under §95102 and "Operator" under §95802; and the regulatory primacy stated under §95000.5(d)(4). [FF 27.01 – AP]

Response: ARB and U.S. EPA have added clarifying language to more clearly state that all hydrogen producers who emit above the reporting threshold must report. This includes both refinery hydrogen production and merchant hydrogen production. Section 95101 (Applicability) states that it is the responsibility of the "operator" of facilities which meet or exceed the 25,000 MT CO_2e threshold to report. Section 95102 (Definitions) defines "operator" as the entity having operational control of a facility. This section also ascribes "operational control" to the entity holding the permit to operate from the local air district. ARB believes that this language clarifies which entity holds the responsibility to report emissions.

M-45. Compliance Obligation
Comment: "Covered" should be deleted from the definition of "compliance obligation" to conform to changes already made in the corresponding definition in the cap-and-trade regulation Definition 53 (82) "Compliance obligation" means the quantity of verified reported or assigned emissions for which an covered entity must submit compliance instruments to ARB. [FF 55.17 – SEU]

Response: The definition has been revised to be consistent with the cap-and-trade regulation.

M-46. Compliance Period
Comment: Synchronize the definition of "compliance period" with language in the cap-and-trade regulation (definition 55) page A-11 that reflects that the 1st compliance period is 2 years (84) "Compliance period" means the three-year period for which the compliance obligation is calculated for covered entities pursuant to the cap-and-trade regulation. [FF 55.18 – SEU]

Response: The definition has been revised to be consistent with the cap-and-trade regulation.

M-47. Farm Taps

Comment: Definition 141 for "farm taps" is no longer pertinent to the regulation. Recommend delete. (141) "Farm taps" means pressure regulation stations that deliver gas directly from transmission pipelines to generally rural customers. The gas may or may not be metered, but never pass through a city gate station. In some cases a nearby LDC may handle the billing to the customer(s). [FF 55.19 – SEU]

Response: The definition has been deleted since the term is no longer used.

M-48. Definition of Farm Tap

Comment: Section 95102(a)(141) defines "farm tap" as follows: "Farm taps" means pressure regulation stations that deliver gas directly from transmission pipelines to generally rural customers. The gas may or may not be metered, but never passes through a city gate station. In some cases a nearby LDC may handle the billing to the customer(s). PG&E has more than 6,000 miles of gas transmission pipelines, with thousands of farm taps (points with one or two connected services downstream of a regulator) on its transmission system. PG&E receives gas at the California border from various interstate pipelines that are defined as city gate stations pursuant to section 95102(a)(68). Defining "farm tap" in relation to the location of the city gate is not workable because virtually all farm taps on PG&E's system are downstream of a city gate station. Therefore, PG&E suggests refining the definition of farm tap as follows: "Farm taps" means pressure regulation stations that deliver gas directly from transmission pipelines to generally rural customers. The gas may or may not be metered, but never passes through a city gate station. In and in some cases a nearby LDC may handle the billing to the customer(s). Modifying this definition will be consistent with industry practice where farm taps are generally interconnections with one or two gas services from high pressure transmission lines [FF 19.02 – PGE]

Response: The definition of farm taps has been removed from the regulation because the term is no longer used in the regulation.

M-49. Clarification of Biomass Definitions

Comment: The definition of "biogenic portion of CO_2 emissions" in §95102(a)(32) should be revised for clarity. In §95102(a)(273) the definition of "Other biomass CO_2", the term "biomass CO_2 emissions" is used but this term is not defined. The general term "biomass-derived fuel" should be used. It is important to specify "combustion" of the biomass-derived fuel, as some types of biomass-derived fuel (e.g. landfill gas), if not combusted, constitute a separate, uncovered category of GHG emissions. [FF 50.01 – SCPPA2]

Response: ARB has removed the term "Other biomass CO_2" and replaced it with "non-exempt biomass-derived CO_2" to improve clarity. ARB has also modified the MRR to clarify that CO_2 emissions are in reference to combustion emission from the biomass-derived fuel.

M-50. Distillate Fuel Definition

Comment: The definition of Distillate Fuel Oil #1 has been added to the regulation. We understand that this fuel does not include Jet fuel. However, because Distillate Fuel Oil #2 is defined in terms of a maximum distillation temperature (and the potential for jet fuel to fall into the range noted), it would be helpful to clarify that the definition excludes jet fuel. A similar clarification was provided to exclude kerosene from the definition. The definition would be modified as follows: “Distillate Fuel No. 1” has a maximum distillation temperature of 550°F at the 90 percent recovery point and a minimum flash point of 100°F and includes fuels commonly known as Diesel Fuel No. 1 and Fuel Oil No. 1, but excludes kerosene and kerosene-type jet fuel. This fuel is further subdivided into categories of sulfur content: High Sulfur (greater than 500 ppm), Low Sulfur (less than or equal to 500 ppm and greater than 15 ppm), and Ultra Low Sulfur (less than or equal to 15 ppm). [FF 40.03 – UA]

Response: ARB believes that is the definitions are clear that jet fuel is not included in Distillate Fuel Oil #1 or #2. Both definitions were taken from 40 CFR Part 98, and maintaining consistent definitions wherever possible will reduce potential conflicts and misinterpretations.

M-51. Modification of Accuracy Definition

Comment: Definition 1 – Accuracy. Requires use of “internationally accepted accuracy methods. The reference value determination should allow for nationally accepted standard methods. WSPA recommends amending as follows: “Accuracy” means the closeness of the agreement between the result of the measurement and the true value of the particular quantity (or a reference value determined empirically using internationally or nationally accepted and traceable calibration materials and standard methods), taking into account both random and systematic factors. [FF 11.34 – WSPA]

Response: All national organizations that have international traceability and standards would be acceptable. ARB has expanded the list of acceptable national organizations for traceability in the regulation’s calibration provisions, and allowed additional methods for calibration, in section 95103(k).

M-52. Release of Reporting Tool Timing

Comment: A reporting tool should be released at least three months prior to its expected use so that reporters can become familiar with it and be ready to use it effectively given how much is at stake because of the tremendous color of authority CARB has in dealing with reporting. [FF 42.07 – CIPA]

Response: ARB agrees timely release of a reporting tool is important for fair and effective reporting, and intends to make the reporting tool available in early 2012. The tool will be based on the U.S. EPA reporting platform that most reporters became familiar with in 2011, which should reduce the learning curve for tool operation.

M-53. Concern About Limited Time for Verification

Comment: Metropolitan is concerned about ARB's proposed changes to the timeline for completion of verification services of reporting data. Under Section 95103 Greenhouse Gas Reporting Requirements, ARB is proposing to move the deadline for third-party verification to September 1 for all reporting entities from the October 1 deadline for electric power entities, which ARB staff states only shortens the verification period by one month. ARB further indicates that this change is necessary to ensure that verification is completed within the timeline required by the cap-and-trade regulation. Under current MRR requirements, operators having an emissions data report due June 1 (as with Metropolitan) must have a verification result submitted no later than December 1 of the same calendar year (95103 (c) (3) Verification Opinion Due Dates). The proposed change in due date for verification statements is a significant shortening of the timeline to complete the annual verification process. Because of the limited number of available verifiers, Metropolitan requests ARB to retain a longer timeframe for the completion of the verification process. ARB should consider some type of phased deadlines in lieu of requiring the same date for all reporting entities. [FF 13.02 – MWDSC]

Response: Many options were considered for modifying the schedule to either provide additional time for reporting or verification. After evaluating many scenarios, including phased deadlines, ARB concluded that the schedule in the regulation provides the best balance that could be achieved between providing time to finish reporting activities and providing completed data necessary for cap-and-trade program needs and analysis. Work is ongoing to ensure that there are a sufficient number of active and qualified verifiers available, as has been the case during the prior three years of reporting. See Response to M-56.

M-54. Extend Verification Deadline

Comment: CIPA recommends that the verification statement due date in section 95103 be revised from September 1 to October 1 to allow facilities 30 extra days

to deal with the complexities of getting the emission report verified. [FF 42.08 – CIPA, FF 17.04-ABIG]

Response: See Responses to M-53 and M-60.

M-55. Provide Additional Time for Reporting and Verification

Comment: CARB has proposed to change both the Reporting and Verification time deadlines to April 1 and September 1 respectively. This change may significantly impact food processors as the reporting requirement now falls in the middle of the processing season. Such further time constraints also creates additional pressures on regulated food processors, especially given ARB is proposing additional reporting requirements that are above and beyond what is required under the EPA 40 CFR MRR program. Given the 24-7 operations required once the harvest has commenced, it is critically important that facilities are given sufficient time to work on developing their reports and to work with their verifiers to obtain required positive or qualified positive verifications. CLFP members will need time to prepare their MRR reports, and this change eliminates three months of time making it even more difficult for facilities to work with their verifiers to obtain the required verification statements. The reasons for this change (compressing the timelines due to need for time to true-up for the pending Cap & Trade program) are clear, but taking time away at the expense of the very regulated parties who are responsible for ensuring accurate reports is inherently unfair. Given these reasons, CLFP recommends CARB re-set the reporting and verification timelines back to the original dates of June 1 and December 1. [FF 45.01 – CLFP]

Response: Staff will work closely with reporters to assist them in meeting all required deadlines. However, given the timeframe necessary to support the cap-and-trade program needs, ARB has not modified the reporting deadlines. See also Responses to M-53 and M-60.

M-56. Timing for Verification Deadline

Comment: 95103(f) The Utilities understand that an earlier verification deadline is needed in order to coordinate with the cap-and-trade program. Keeping this in mind, the Utilities urge CARB to consider allowing more time for verification to avoid scheduling conflicts given the limited number of certified verifiers. [FF 05.05 REU]

Response: To meet the timeframes required by cap-and-trade, the verification deadline is September 1 each year. ARB currently has 276 accredited verifiers to conduct verifications for reporting entities. Once the new regulation is in place, ARB plans to re-accredit the verifiers to ensure there is always a large enough pool to provide verification services in the upcoming years. As the program moves forward ARB will determine whether more training is needed to add new verifiers to accommodate the changed deadlines.

M-57. Restore Reporting and Verification Schedules to Original Dates
Comment: CMTA objects to ARB compressing the Reporting and Verification time deadlines to April 1 and September 1 and recommends ARB restore these deadline dates back to the original dates of June 1 and December 1. Given ARB is proposing more stringent meter calibration requirements, recordkeeping and data collection procedures that in many cases go far beyond what is required under the Federal MRR reporting program, facilities will be faced with having to devote additional time, resources and energy in developing their AB32 report submittal, all of which will require additional time necessary to ensure accurate reports are compiled, including time necessary that is critical to work with their verifiers to obtain required positive verifications. We do not agree with ARB that the deadline date adjustment is needed to meet the needs of the Cap & Trade program, and in that regard, compressing the deadline periods, is simply unacceptable given the above mentioned concerns, and request ARB restore the dates back to the original June 1 and December 1 deadline dates. [FF 29.04 – CMTA]

Response: See Responses to M-53 and M-60.

M-58. Time Extensions for Abbreviated Reporting
Comment: Provide a mechanism for time extensions to the reporting deadlines for facilities subject to Abbreviated Reporting. [FF 06.01 – NRW]

Response: Abbreviated Reporting for eligible facilities begins in 2013. Abbreviated Reporting facilities are already provided with the later reporting deadline of June 1 (versus April 10 for other facilities). With the very limited data reporting requirements for Abbreviated Reporting, ARB believes that five months will be sufficient time to complete reporting and that no change is needed.

M-59. Additional Time is Needed to Meet Provisions
Comment: This regulation will not be final or effective until at best the latter half of 2011. Without full understanding of the requirements of the regulation, facilities may not have collected or may not have been able to collect information necessary to comply with numerous requirements that go beyond existing ARB or USEPA requirements. WSPA believes that that a year is needed to implement all the requirements that go beyond existing ARB or USEPA regulations and recommends that most of these additional provisions would be required starting January 1, 2013. [FF 11.03 – WSPA]Response: Section 95103(h) of the regulation permits 2012 emissions data reports (for 2011 emissions data) to be completed using applicable monitoring and calculation methods from 40 CFR Part 98, which are applicable to most affected facilities. To meet ARB program needs, it is not feasible to defer implementation of the regulatory requirements for an additional year. ARB believes the overall program requirements approved by the Board in December 2010 and the subsequent availability of modified text in 2011 provide adequate time for reporters to prepare for the full reporting requirements in 2013 (on 2012 emissions).

M-60. Submittal and Verification Dates

Comment: WSPA would like a June 1 report submittal date and a verification deadline of December 1. [FF 11.09 – WSPA, FF 11.10 – WSPA]

Response: Staff has proposed reporting and verification deadlines that are necessary to meet the needs of ARB's GHG regulatory programs. In particular, a September 1 verification deadline is necessary to allow for compliance obligations to be finalized prior to surrender of compliance instruments November 1. This deadline also provides information ahead of an allowance auction in October of each year where compliance instruments may be purchased. ARB also needs the verified emissions and product data in early fall to support the allocation of allowances conducted in November for the next year. The verification deadline also needs to allow some time for any petitions to be resolved. ARB did, however, alter the reporting deadline in response to public comment. The April 10 deadline for facilities and suppliers will allow for ten days of additional time beyond the federal reporting deadline, without substantially shortening the verification period.

M-61. Reporting Deadlines Significantly Compress Time to Comply

Comment: The change to the reporting deadlines significantly compresses the time allowed for those entities to prepare their reports and more importantly, eliminates three months of time that is critical for facilities to work with their verifiers to obtain verification statements. We understand the reasons for compressing the timelines due to the needed time to true-up for the pending cap-and-trade program, but disagree on the need to make the change. Taking time away at the expense of the regulated parties who are responsible for ensuring accurate reports is inequitable. It is imperative that facilities are given ample time to work on developing their reports and for verification, especially since the facility MRR reports serves as the foundational basis of the cap-and-trade program. The time constraints creates additional pressure, especially given that CARB is proposing additional reporting requirements beyond the EPA 40 CFR MRR program. Recommend that CARB re-set the reporting and verification timelines back to the original dates of June 1st and December 1st. [FF 53.01 – CCC]

Response: See Responses to M-53 and M-60.

M-62. Delay Reporting Deadline

Comment: We request ARB to delay the first reporting deadline to July 1, 2012 for Petroleum and Natural Gas reporters while we sort out a rational and harmonized definition of facility. In the case of onshore petroleum and natural gas production, the reporting footprint is defined as the geological basin. Reporters would be required to determine and report emissions from stationary combustion, and specified process and vented emissions. The reporting entity may be either a facility or operator. But in all of the effort to harmonize, there is

still confusion relative to current and ongoing reporting framework for local air districts. Oil and gas operators in California with multiple locations conceivably could be required to comply with air district, CARB, WCI and federal reporting requirements which will be confusing and costly especially given the enforcement penalties at CARB's disposal for such things as "inaccurate information". CIPA supports the traditional air district facility definition. The basin definition is not only confusing, but the practical effect will be to bring smaller operators into the mix who really weren't intended to be included in the large emitters category targeted for reporting, at likely prohibitive cost. [FF 42.02 – CIPA]

Response: The proposed revisions to the ARB GHG reporting regulation define "facility" and "onshore petroleum and natural gas production facility" similarly to the U.S. EPA GHG reporting regulation, so the boundaries for state and federal reporting should be fully consistent. There are no separate WCI reporting requirements, and in cases where an air district has imposed GHG reporting requirements, these have been included in their systems of criteria pollutant reporting to reduce duplication of effort. ARB does not agree there is sufficient variation in reporting footprints that it is necessary to delay reporting until July 1, 2012.

M-63. Alternate Calculation Methods

Comment: Alternative calculation methods in the regulation may not be as accurate as best available data/engineering estimates for the facility. [FF47.04 – CCEEB]

Response: ARB believes that to ensure consistency in emissions calculations and equity for reporting entities, required methods need to be followed. These methods may include alternatives specified in the regulation, either within sector-specific requirements or for the replacement of missing data. In some cases these include engineering estimates as suggested by the commenter.

M-64. Use of Previous Methods for 2012 Report

Comment: WSPA requests that ARB provide the option to continue to use ARB monitoring and calculation methodologies for the 2011 emissions data report in 2012. [FF 11.39 – WSPA]

Response: In response to comments, staff has modified the reporting requirements for 2012 (section 95103(h)) to allow for the use of best available data and methods (defined in section 95102) in cases where the reporter is not required to report to U.S. EPA. ARB believes it is sensible to maintain consistency with federal reporting when a U.S. EPA report is required, however.

M-65. Requirements Applicability

Comment: WSPA requests ARB to clearly state that all new requirements for PNGS reporters that are not included in 40 CFR Part 98 are applicable beginning 2012 and will not be applicable to the 2011 emissions data report. We

understand that all reporting of new provisions included by ARB (but in in EPA MRR) are applicable beginning with 2012 emissions reported in 2013. [FF 11.73 – WSPA]

Response: ARB has modified section 95103(h) to provide the clarity the commenter requests: "For emissions data reports due in 2012, facility operators may report 2011 emissions using applicable monitoring and calculation methods from 40 CFR Part 98." For additional flexibility in the 2012 report for petroleum and natural gas systems sources, the regulation incorporates the U.S. EPA Best Available Monitoring Methods provisions as finalized April 25, 2011.

M-66. Typographical Error in References

Comment: The first paragraph of Section 95105 has a reference to Section 95103(c), which should now refer to Section 95103(a)(9). Section 95105(c) contains two references to section 95105(c)(8). Section 95129(d) has a reference to subsection 95103(h) for an accuracy standard, which should now be 95103(k). [FF 16.05 – LACSD]

Response: ARB has corrected the reference to section 95103(a)(9). The inclusion of two items numbered as (8) has also been corrected. ARB has also corrected the reference in section 95103(h) to properly reference section 95103(k).

M-67. ARB and Air District Reporting Coordination

Comment: Different agency reporting requirements of air pollutants should be streamlined through consolidated reporting. It should occur with GHG reporting and with criteria pollutant reporting. EPA is coordinating with other states to allow for a single GHG reporting program that will satisfy both the State and Federal requirements. Further consolidated reporting will benefit our agencies and businesses by avoiding duplicative reporting, reducing inconsistencies, and improve reporting efficiencies. We continue to recommend this concept be further considered as CAPCOA and SCAQMD have previous expressed in comment letters to CARB on December 8 and 15, 2010, respectively. [FF 34.02 – SCAQMD]

Response: See Response to A-75. Because of the data needs, complexity, and differences between criteria pollutants and greenhouse gas reporting programs, it is not currently reasonable or feasible to combine the two reporting programs. In addition, there are clearly defined regulatory jurisdictions for collecting data for the two classes of emissions, which makes combined reporting administratively and technically impractical.

M-68. Support for Biomass-Derived Fuel Reporting

Comment: CBEA greatly appreciates the responsiveness of the staff as it relates to calculating, reporting, and verifying emissions from biomass-derived fuels in Section 95103(j). In particular, per our recommendation, staff has clarified

language in this section and related others to distinguish reporting requirements for solid-fuel biomass and other biomass technologies. We understood the intent of the previous language and now the current 15-day language matches that intent and appropriately distinguishes the differences among biomass and biofuel technologies. CBEA also supports the language staff added addressing other stakeholder concerns related to solid fuels, including forest-derived wood and wood waste. The language in 95103(j)(1) now requires users of solid biomass to report the mass of fuel consumed by fuel type, and end users of forest biomass would also report fuel supplier contact information. While this change increases the facilities' administrative burden, the additional data that ARB would get from these tracking numbers is of true value to the assessment of the use of forest derived wastes and residues in a biomass power plant. [FF 44.01 – CBEA]

Response: This comment does not seek any modifications to the MRR. However, ARB appreciates the commenter's support.

M-69. Allocation of Emission by Fuel Type

Comment: CBEA respectfully requests two additional clarifications to Section 95103(j). There are problems with associating actual emissions to types of fuels received. As fuel is received it is put in fuel piles and blended. Fuel inventory may be anywhere from less than a month to several months. Fuel receipts will not necessarily align with fuel usage, even on an annual basis. In addition, emissions are calculated based on the requirements already outlined in this regulation (i.e., they are calculated on steam production together with boiler efficiency), not fuel use. Biomass facilities are already reporting fuel receipts by category as noted above. Requiring companies to associate emissions with fuel type has no bearing on anything of importance. We have previously suggested modification to address this issue and believe it an important change to the regulation. [FF 44.01 – CBEA]

Response: ARB agrees, and language has been added to section 95103(j) to clarify that reporters using CEMS or the steam method (Equation C-2c in 40 CFR §98.33(a)) for reporting emissions do not have to allocate emissions by fuel type.

M-70. Community Drop-Off Biomass-Derived Fuel

Comment: In Section § 95103 (j)(1) it would be of great value to clarify that fuel originating from a biomass facility's community drop-off program will be treated a little differently by each of the facilities. As you know community collection drop off fuel is purely urban and sources vary considerably. Sources can be a single tree stump from a backyard yard, residential green waste program or larger property owner doing fire safety fuel reduction on their land; construction waste, broken pallets from the local school district or from an entire local government entity. Vehicles transporting this wood waste vary in size also. Some facilities weigh the larger vehicles and some do not. Community drop off programs are important to the communities that are served and it would be a loss if these program were burdened with unnecessary tracking and verification requirements

under the rule. We fully appreciate that is not staff's intent. Therefore it would be of great value to add a sentence as follows to alert a verifier that each facility will account for this fuel in a manner that best suits how they receive this category of urban wood waste. "When reporting solid waste, the reporting entity must separately report the mass, in short tons, of urban waste, agricultural waste, and municipal solid waste. Estimating the amount of fuel from public community drop off can be done using standard industry practices." [FF 44.01 – CBEA]

Response: It is ARB's understanding that all facilities that operate community drop-off programs report emissions using CEMS or steam. Since fuel mass is not used to calculate emissions there are no meter accuracy requirements for fuel mass. Facilities are allowed to use a reasonable method to estimate fuel usage, and standard industry practices would be one of these methods. No change is required in the regulation.

M-71. Forest Derived Wood Waste

Comment: Forest-derived wood and wood waste requires an identification number to show that it meets the requirements of 95852.2. Please note that this requirement will have the practical effect of eliminating all wood supply delivered through middlemen, which is the current supply route for most cement plants (especially in Southern California), because middlemen do not have the ability to segregate and track individual lots of wood waste. Therefore, due to this requirement, cement plants may no longer be able to use forest-derived wood waste as a biomass-derived fuel without a compliance obligation under AB32 cap & trade. To promote the use of biomass-derived fuels and to avoid giving an advantage to larger operations in a quasi-monopolistic situation, we recommend that ARB identify a more practical alternative to track forest-derived wood waste given to middlemen, for use as fuel in other locations. [FF 12.12 – CSCME]

Response: Tracking of forest wood waste is essential to determine the effects of GHG control strategies on use of biomass fuels that may originate in forests. ARB staff has spoken with all the biomass fuel suppliers that the commenter identified in separate correspondence on this topic. Each indicated that they do not deal in forest wood waste as described in the regulation. Therefore, this provision should not affect CSCME members, and no changes are required at this time.

M-72. Reporting Requirements for Biomass-Derived Fuel from Forest

Comment: The additions to section 95103(j) require that woody biomass sourced from forests include basic information about the permit governing harvest, the mass of the material, and basic contact information. These new reporting requirements will help track emissions from biomass back to the source, and generate information about the sources of woody biomass that can help inform efforts to ensure sustainability of woody biomass utilization, determine the upstream carbon impacts of woody biomass utilization, monitor for adverse environmental impacts, and inform future policy decisions. The utility of this

information would be significantly improved by gathering three additional pieces of information. 1) The type of forest material collected and combusted. 2) A geographic indication of the source of the forest biomass. 3) Include a reporting category for forest biomass from outside of California. [FF 10.01 – EC]

Response: ARB has declined to make the commenter's recommended change because it believes the detailed information described by the commenter could be gathered from other sources. See also Response M-73.

M-73. Reporting Requirements for Biomass-Derived Fuel from Forest
Comment: We strongly recommend CARB expand the mandatory reporting regulation to include the reporting of biomass type, biomass characteristics, and location where the biomass was sourced (or cultivated). We recommend the current mandatory reporting regulation for the AB32 program be amended to require expanded reporting related to biomass. Expanded reporting will lay the groundwork necessary to understand how the current program impacts California's biomass resources and will also be necessary if the state determines that a program based on scientific accounting of actual net carbon emissions from biomass production and energy use is appropriate. This disaggregated information will allow CARB to understand whether biomass used for energy generation or as a compliance strategy under the program came from waste material in agricultural operations or from forest thinning or logging projects, where the biomass materials would otherwise have been burned as a means of disposal, without displacing fossil fuel use. Such data is invaluable for looking at potential impacts on California forests because it signals potential problems if overuse of forest material is documented. [FF 10.04 – EC]

Response: Language has been included in section 95103(j) to track the harvest location of forest biomass by Forest Practice Rules and National Environmental Policy Act identifiers. Although this tracking may not be at the resolution sought by the commenter, it will still be possible to evaluate the effects of the cap--trade regulation on biomass utilization. Further characterization of forest biomass by type was evaluated and determined to be difficult because much of the forest biomass is chipped prior to arriving at the reporting entity, thus making determination of type impossible. Biomass producers are not regulated entities and verification of the type of biomass would be difficult. However, based on the identifiers described above, information about the types of forest products used as fuels should be available.

M-74. Reporting Requirements for Biomass-Derived Fuel from Forest
Comment: To facilitate the best method of forest biomass sub-classification for the purposes of carbon accounting and to create a system that allows CARB to determine whether the program at large is having deleterious impacts on California forests, we further recommend CARB examine the appropriateness of two different approaches to sub-classifications and then choose the approach that is easiest to effectuate, with the least administrative burden, and with the

most accuracy. In particular we recommend CARB investigate requiring reporting either by (1) Simple biomass harvest characteristics, (2) biomass size ranges or by (3) the extraction permitting system used the landowner(s). [FF 10.08 – EC]

Response: ARB did investigate this matter as the commenter requested, and decided the language in section 95103(j) to require reporting of forest biomass by Forest Practice Rules and National Environmental Policy Act identifiers is sufficient to evaluate the effect of the cap-and-trade regulation on biomass utilization. This is consistent with the third option identified by the commenter.

M-75. Reporting Requirements for Biomass-Derived Fuel
Comment: In alignment with the RPS and to create a rigorous carbon accounting system for biomass emissions, we recommend that CARB require both energy generators (both in state and out of state) and non-energy generating stationary industrial sources combusting biomass should be required to report: a. Emissions of carbon dioxide equivalent associated with combustion of biomass b. Volume of biomass combusted in bone dry tons, or some other accepted metric, listed by material type c. Geographic Origin of biomass feedstock, The preferred geographic origin indicator for incorporation into statewide GIS and remote sensing databases is GPS coordinates. d. Biomass material type (with classifications). [FF 10.05 – EC]

Response: The regulation includes language in section 95103(j) to require reporting of biomass combusted by type and mass or volume. Emissions of CO_2e associated with biomass combustion must be reported under sections 95115 and 95112 of the MRR. See also Response to M-73.

M-76. Reporting Requirements for Biomass-Derived Fuel
Comment: With regard to the listing of biomass material type, we further recommend that CARB require reporters to classify the feedstock / material type of the biomass they combust. By creating a set of classifications to choose from, the reporting program can minimize reporting burden and to maximize consistency. Specifically, we recommend CARB require reporters to group biomass into one of six different biomass material categories: 1) Construction waste 2) Yard or tree waste 3) Mill waste 4) Agricultural residue or waste 5) Other agricultural products such as purpose grown energy crops 6) Forest management biomass (with sub-classifications) In general, biomass combustion facilities and / or biomass wholesale suppliers already aggregate much of the data types listed above. Therefore, we do not see this classification as requiring the collection of new data. Rather, this will require the routing of data to CARB that is already collected and stored within the system today. [FF 10.06 – EC]

Response: ARB determined that reporting at this level of detail is duplicative and unnecessary for assessing sustainability questions. However, the regulation does include language in section 95103(j) to require reporting of biomass-derived fuel

by type: urban, agricultural, and forest (with sub-classification by Forest Practice Rule identifier).

M-77. Reporting Requirements for Biomass-Derived Fuel

Comment: Since different forest biomass extraction and management techniques can have a material impact on the amount of remaining carbon (both as wood and as retained in the soil) over time, we also recommend CARB require reporting of forest management biomass into pertinent sub-classifications. These sub-classifications should be based on the silvicultural technique used to accumulate and extract the biomass from the forest since this is the best indicator of both the effect on forest and the sustainability of the cultivation technique. In general, it is our understanding that this information is generally in the possession of the biomass wholesale supplier, so, again, this programmatic modification should not require a significant effort on the part of the biomass burner to execute. [FF 10.07 – EC]

Response: Please see Responses to M-72, M-73, M-74, M-75, and M-76.

M-78. Additional Citation Required

Comment: Additional changes to this provision are required for clarity. Section 95103(j) refers to §95115 but not to §95112. Section 95112 is the section on electricity generation, and this section appears to be relevant to § 95103(j). Section 95103(j) refers to verification requirements but not to certification. A reference to certification should be included, because if fuel is from a certified facility, SCPPA understands that fuel will qualify as biomass-derived fuel. As discussed above, it is important to specify “combustion” of the biomass-derived fuel [FF 50.02 – SCPPA2]

Response: ARB agrees and has added a reference to section 95112 in section 95103(j). ARB will consider a reference to certification after a certification program is in place.

M-79. CEMS and Meter Accuracy

Comment: Section 95103(k) has been extended to apply to feedstock monitoring, weigh scales, and many other types of monitoring devices. Section 95103(k), measurement accuracy requirements, states that it does not apply to "stationary fuel combustion units that use the CEMS methodologies in 40CFR75". These words should be replaced with the following: "stationary fuel combustion units that measure CO_2 emissions in accordance with 40CFR98(a)(4). This will then extend this inapplicability statement (as likely intended by ARB) to units with either 40CFR75 or 40CFR60 CEMS. [FF 12.07 – CSCME]

Response: The regulation has been modified to read “stationary fuel combustion units that use the methods in 40 CFR §98.33(a)(4).” This modification addresses the comment by applying the exclusion in section 95103(k) to the calculation of emissions from a CEMS used under Part 60 as well as Part 75.

M-80. Meter Accuracy Exemption

Comment: Add the following to the end of the sentence in 95103(k): "…must meet the requirements of paragraphs (k)(1)-(10) below for calibration and measurement device accuracy, except where exempted in the sector-specific sections 95110 through 95123 or as indicated below." [FF 12.08 – CSCME]

Response: ARB has determined that the proposed change does not add additional clarity or modify the existing requirements, so the language suggested by the commenter was not incorporated.

M-81. Instrument Accuracy

Comment: Section 95103(k)(6)(A) specifies a minimum of three calibration points spanning the normal operating conditions. We would like to suggest the following change that provides a clear definition of the required calibration points: "…(A) Perform all mass and volume measurement device calibration as specified in 40 CFR §98.3(i)(2)-(3) except that a minimum of three calibrations points must be used spanning the device's rated operating range. The meter calibration points must include at least one sample at or near the zero point, at least one sample at or near the upscale point, and at least one sample at or near the mid-point of the device's rated operating range. The instrument must be capable of reading across the entire range." [FF 08.01 – KI]

Response: ARB agrees with the suggested change and has modified the regulation accordingly.

M-82. Devices Excluded from Metering Accuracy

Comment: Please modify the exclusion for "devices that are solely used to measure parameters used to calculate emissions without a compliance obligation" as follows "devices that are solely used to measure qualifying biomass-derived fuel throughput and other parameters used to calculate emissions without a compliance obligation" [FF 12.13 – CSCME]

Response: ARB has created a new defined term, "covered emissions", which it believes addresses the commenter's concerns.

M-83. Cross Reference Correction

Comment: Section 95103(k)(4)(E) reads "…to relieve the operator from having to comply with provision (D) of this subparagraph…". Should this section read as follows: "… to relieve the operator from having to comply with provision (A)-(C) of this subparagraph…"? [FF 08.02 – KI]

Response: Yes. ARB has modified the regulation as suggested.

M-84. Meter Accuracy Verification

Comment: Accuracy Verification: We previously expressed the opinion that independent third party verification of instrument accuracy would be critical to assure that the data is meaningful. We understand that the program requires that the reporting entity must use an independent third party verification contractor. But we have not seen where the standard required the contractor to verify that the instrument accuracy is verified by the 3rd party verification contractor. We would like to suggest that a new §95131 (b)(1)(A)(5) be added which says "The plan shall include a description of the methodology to be used to assure that the monitoring instruments comply with the requirements of §95103 (k)." [FF 08.03 – KI]

Response: During verification, the verifier must determine that the reporting entity is in conformance with all the requirements of the regulation. One set of requirements is for meter accuracy in section 95103(k). Therefore, the verifier will use these standards in determining whether the reporter's meters have been calibrated in conformance with the regulation. If they are not in conformance, an adverse or qualified positive statement would result. As such, ARB does not believe the requested change is necessary.

M-85. Third Party Meter Certification

Comment: Our primary concern relates to the need for independent 3rd party certification and how it is accomplished. The Draft Standard requires compliance with 40 CFR §98.3(i): § 95103(k) Measurement Accuracy Requirement. The operator or supplier subject to the requirements of 40 CFR §98.3(i) must meet those requirements. In addition, the operator or supplier with a compliance obligation under the cap-and-trade regulation must meet additional requirements. Kurz feels that the following section should be added to §95103(k). Monitoring Instrument Certification: For instruments used for monitoring the GHG emissions or other process fluids (e.g. fuels) used to calculate GHG, user must obtain certification using an independent 3rd party test contractor, approved by the CARB to do an initial compliance test within the first 60 days of operation. The certification must demonstrate that the instrument is suitable for the application and meets the requirements of §95103(k). [FF 08.04 – KI]

Response: ARB evaluated the comment and determined that the current language provides sufficient safeguards to ensure accuracy. The inclusion of the proposed language would impose unnecessary additional costs and resource burdens on reporters. See also Response to M-84.

M-86. Meter Calibration Requirements

Comment: Calibration Requirement Should Be Clarified. Section 95103(k)(1) requires that monitoring and sampling devices must be calibrated prior to the year data collection is required to begin. However, there may be facilities that are required to report emissions starting in a given year, but it may not be known until after that year that the facility meets the minimum reporting criteria. Therefore,

PG&E suggests that the calibration requirement be adjusted to accommodate entities that become subject to the mandatory reporting requirements for the first time due to an increase in their natural gas usage. One way to accomplish this would be to require that the calibration is completed before the first verification process for a facility and that the documentation be reviewed during this first verification process. [FF 19.10 – PGE]

Response: ARB has determined that ±5% accurate meters should be used for any data leading to a compliance obligation. If the meter was not calibrated prior to the start of data collection because it was not known that it would be necessary, the facility must demonstrate that the meter is in calibration at any point after data collection is required to begin. In this case the meter may be assumed to be in calibration at the start of data collection. To be safe, however, any facility that is close to the compliance obligation threshold should complete calibration of its meters in case it exceeds the threshold. (This applies to meters owned by the reporting facility; meters owned by the utility selling natural gas to the facility are assumed to be ±5 percent accurate under the regulation.)

M-87. Meter Accuracy

Comment: Numerous additional accuracy requirements were added to section 95103(k) that create additional burdens beyond what is required in the U.S. EPA GHG reporting regulation. We ask ARB to reconsider whether these specific additional requirements beyond the EPA requirements are warranted: Section 95103(k)(4) requires the operator to conduct recalibrations using the procedure having the shortest frequency, regardless of the manufacturer's recommendation; Section 95103(k)(5) states all standards used for calibration must be traceable to the National Institute of Standards and Technology; Section 95103(k)(6)(A) required orifice plates to be inspected in accordance with 95103(k)(4), must be conducted in accordance with ISO 5167-2 (2003) section 5, and must be photographed on both sides prior to any treatment or cleanup of the plates. [FF 40.02 – UA]

Response: ARB has determined that the additional accuracy requirements above and beyond what the U.S. EPA requires are necessary because reported emissions will result in a compliance obligation under the cap-and-trade regulation. It is essential that there be a high degree of confidence in the accuracy of emissions subject to trading.

M-88. Meter Calibration

Comment: WSPA recognizes the need for accurate and reliable measurement of emissions and process information if the State is to implement a reliable and effective Green House Gas (GHG) emission reduction program. We agree that reliable data is an essential element of the MRR program. We remain concerned however, that calibration procedures required in the proposed regulations may be inappropriately applied to California facilities, are inordinately burdensome, or could be substituted with more applicable standards. We cite as an example, the

requirements for repeated calibration of equipment and the repetitive inspection of orifice plates that are inconsistent with currently accepted refining practices (See Attachment A (Issues 3-10) for examples and additional information). WSPA provides a series of recommendations to clarify the intent of the program and provide for data integrity, while still allowing existing facilities the needed operational flexibility. [FF 11.01 – WSPA]

Response: Please see Response to M-87.

M-89. "Calibration Check"

Comment: Section 95103(k) describes the requirements for demonstrating the accuracy of measurement devices that are used to quantify facility GHG emissions, and the terms calibration and recalibration that are used throughout this section. WSPA recommends ARB should clarify this section by adding the term "calibration check(s)". Most measurement device manufacturers require (based on type of meter and set schedules), that a "calibration check" be conducted. Such calibration "checks" will demonstrate whether the meter is operating correctly and meeting required accuracy, in the event such "calibration checks" indicate the measurement device is operating inaccurately, the operator would then conduct the required calibration procedures on the device.

WSPA recommends ARB clarify in Section 95103(k) that a "calibration check" is required, and in the event such "checks" indicates a measurement device is not meeting the accuracy requirements, the device must be calibrated or recalibrated. [FF 11.12 – WSPA, FF 11.41 – WSPA]

Response: The regulation does not require calibration of a meter that is demonstrated to be operating correctly and meeting the required accuracy. When a reporter tests a meter and it is within the tolerances allowed by the regulation and the instrument manufacturer, the meter is considered calibrated. No further action beyond documentation is required. A change to the regulation is not necessary for this practice.

M-90. Meter Calibration

Comment: The EPA MRR requires the most rigorous level of owner/operator calibration requirements for flow meters used to measure the amount of fuel flowing to tier 3 stationary combustion emission sources (e.g., furnaces burning refinery fuel gas, which are about half of site carbon emissions). It defers to other QA/QC procedures for:

a.) tier 1 and tier 2 combustion sources [e.g., liquefied petroleum gas (LPG) or diesel combustion] for which EPA allows use of company records, and
b.) 3rd party flow meters and records (e.g., PG&E natural gas invoices) for which EPA allows use of 3rd party custody transfer meters and records (e.g., invoiced amounts).

Also, the EPA MRR requires primary element inspections (PEI's) of tier 3 stationary combustion emission sources (e.g., refinery fuel gas meters orifice plates inspections) but does not require these inspections for tier 1 and tier 2 stationary combustion emission source (LPG, diesel engines, natural gas) or for process gas flow-meters (e.g., acid gas feed to sulfur recovery units, SRU's).

ARB's proposed MRR revisions, unilaterally apply more rigorous calibration and orifice plate inspections requirements across a larger group of meters used in estimating GHG emissions, for which in some cases meter emissions that are less than 1% of the total facility-wide GHG emissions. Since accessing some of these meters may require some combination of:

a.) Slowing or shutting down refinery operations/production to access orifice plates,
b.) Installing staging to access meters,
c.) Engineering and installing hardware to bypass, and/or isolate orifice plates for their inspection, and/or replacement,
d.) Labor to calibration check and calibrate meter and address orifice plates, and
e.) Potential safety risk of personnel exposure accessing some lines (e.g., SRU's acid gas feed) ARB should revisit the proposed requirements.

One example is acid gas feed on refinery sulfur recovery units (SRU's). The feed flows are measured with meters of orifice plate design on lines that are in concentrated hydrogen sulfide (H2S) service (acid gas). EPA MRR requires calibration of the transmitters for these feed flow meters, which can be done while the plant is operating. The ARB proposed MRR expands the existing list of refinery flow meters requiring orifice plate inspection to also include SRU feed gas flow-meters.

Most refineries do not have special equipment enabling an orifice plate to be removed while the line with the flow-meter is in-service nor have bypass lines around the meters. Hence, inspecting refinery orifice plates requires shutting down associated process units so that the line with the flow meter can be removed safely from service. This operation may have a significant impact on a refinery's operations for meters that monitor less than one percent of the facility-wide emissions.

Because EPA does not require SRU's acid gas feed orifice plate inspection, these have not been inspected in recent years but would be immediately due under ARB's proposal. Hence, under the ARB proposal, many refineries will be forced to submit a request to the Executive Officer before 11/30/2011 asking their approval to extend the SRU's acid gas feed orifice plate inspections to their next scheduled shutdown.

WSPA recommends AB32 MRR should require the same meter calibration and PEI's the EPA rule requires and not add requirements above and beyond this,

especially for meters where the emissions are very small compared to other meters and process equipment. The EPA approach provides the most rigorous QA/QC for the meters with the most significant impact on refinery GHG emissions reported and gives needed assurance of accuracy for cap and trade. This EPA approach assures consistency in approach with GHG reporters in other states and hence doesn't put California owners/operators at a competitive disadvantage. [FF 11.13 – WSPA]

Response: ARB has determined that calibration requirements beyond those in the U.S. EPA regulation are needed to support the accuracy requirements of a cap & trade program. However, ARB has included in the regulation several alternative metering requirements that can be used in the above identified situation. In cases of the small Tier 1 and Tier 2 sources, which the commenter indicates may be less than 1 percent of facility emissions, the reporter has the ability to report emissions as *de minimis.* Meters on such sources would be exempt from the calibration requirements of section 95103(k) as long as they do not exceed 3 percent of facility total emissions and 20,000 metric tons CO_2e. Third party meters such as custody transfer invoices are also exempt from section 95103(k), subject to the common ownership requirements of section 95103(k)(7).

In response to continuously operating equipment, and difficulty accessing and calibrating metering, ARB has provisions in section 95103(k) to allow reporters to demonstrate that the meters meet the 5 percent accuracy requirements without actually calibrating the meters, and to request postponements.

M-91. Orifice Plate Calibration

Comment: ARB included a new Section 95103(k)(5), which requires that all standards used for calibration must be traceable to the National Institute of Standards and Technology (NIST). WSPA believes that the NIST calibration standards for orifice plates may not be directly be applicable to oil industry practices, and thus they cannot be calibrated to the NIST protocol.
WSPA believes that appropriate standardized calibration methodologies must be readily available. We believe that unless there is significant technical rational for disregarding the methodologies required in 40CFR98.34 for Tier 3, they should be permitted. These methodologies are based on flow meter manufacturer's procedures, consensus-based standards organization, or industry accepted practice. WSPA recommends 40CFR 98.34(b) be allowed for calibration of orifice plates in oil industry service. [FF 11.14 – WSPA]

Response: ARB has determined that calibration requirements beyond those in the U.S. EPA regulation are needed to support the accuracy requirements of a cap & trade program. NIST standards are applicable to every type of measurement devise. Unless a calibration is traceable to NIST there is no assurance that the devices are accurately measuring their required data. NIST standards do not refer to the methodologies used for calibration. NIST standards

assures that the devices used to calibrate the meters using the OEM procedures or other approved procedures are accurate themselves. Additionally, ARB has expanded the list of acceptable traceability bodies to any national or international government body that maintains measurement standards.

M-92. Small Source Meter Calibration

Comment: Refineries generally installed flow meters of orifice plate designed to provide better than 2% accuracy per transmitter and, in so doing, met EPA accuracy requirements for transmitters. However, for some low-pressure intermittent-service systems, it is a significant and unique engineering challenge to design an orifice flow meter for these systems that will sustainably provide 5% accuracy, per ARB's rules. Because they are intermittent they have a very small contribution to the overall emissions inventory and hence a very small contribution to the overall GHG inventory accuracy.

As an example, combustion of one refinery's loading vapors results in an estimated 10,000 metric tons CO_2-equivalent per year, which is less than 1% of the refinery-wide total of several million tons of CO_2-equivalent per year. Since EPA requires this sources emissions to be estimated using their specified approach and ARB's revised de minimis approach does not allow de minimis sources to use other-than EPA-prescribed-method where one applies, the ARB de minimis approach that refineries used for these sources may no longer apply.

WSPA recommends for flow-meters contributing less than 5% of the site-wide carbon emissions, allow these to meet the EPA transmitters' accuracy requirement and do not require them to individually demonstrate 5% accuracy. 95103(k)(10) requires overall inventory meet 5% accuracy to avoid nonconformance in verification. This assures acceptable overall inventory accuracy without undue burden for each individual monitoring device. [FF 11.15 – WSPA]

Response: In response to comments, ARB has modified section 95103(i) to allow use of methods outside of U.S. EPA requirements for *de minimis* emissions estimation. This additional flexibility should address the commenter's concern for small sources.

M-93. Third Calibration Point

Comment: Section 95103(k)(6)(1) requires operators to perform all mass and volume measurement device calibrations as specified in 40 CFR 98.3(i)(2)-(3), however, ARB is requiring a minimum of three calibration points must be used spanning the normal operating conditions. While WSPA members support the need to ensure accurate information and data collection, WSPA also believes any additional requirements that are imposed beyond EPA 40 CFR reporting requirements should be thoroughly justified and provides necessary added accuracy.

In other words, all additional meter accuracy requirements should be clearly justified on a technical basis, especially if such requirements result in no significant reporting benefit. In that regard, WSPA requests ARB provide justification as to level of additional accuracy and data would result by requiring an additional third calibration point be required.

WSPA believes two calibration points are satisfactory to meeting the accuracy requirements required by ARB. Requiring an additional third calibration point requirement is unnecessary because it does not provide any measurable emission calculation benefit or value. WSPA recommends ARB eliminate the requirement to conduct a third calibration point for measurement meters and go back to the current two point calibration requirement. [FF 11.16 – WSPA, FF 11.43 – WSPA]

Response: ARB agrees that requiring a third point in all cases is not necessary, especially in cases where the instrument may only have the capability of being calibrated at one or two points. The regulation has been modified to require calibration according to the requirements of the equipment manufacturer. In cases where the manufacturer's specifications do not exist, the operator will be required to use the three point calibration. This change was made following discussions with instrument manufacturers who indicated the need for three point calibration to confirm that a linear meter response is occurring.

M-94. Meter Calibration

Comment: Section 95103(k)(6)(1) requires orifice plates must be inspected following the requirements described in ISO 5167-2(2003), Section 5. ISO 5167-2 is a procedure that is applicable to custody transfer meters, which require totally different standards of measurement and levels of accuracy different from the function and operation of orifice plates. WSPA believes that alternatively the inspection should be conducted based on a method published by a consensus based standard organization. [FF 11.17 – WSPA]

Response: ARB has made changes to section 95103(k)(6) to allow additional methods to be used that will meet the accuracy requirements of the regulation.

M-95. Temperature and Pressure Probe Calibration

Comment: Section 95103(k)(A)(2) requires measurement probes that are located internally in pipelines that measure total pressure and temperature, must also conform to the calibration frequency requirements in Section 95103(k)(4). This change raises significant concerns because the rule is unclear for pressure and is unnecessary for temperature.

For pressure, it is not clear how to meet this requirement. There is no probe that can be removed and therefore a facility cannot conduct a calibration check for pressure. Pressure is measured with a diaphragm internal to the measurement device, and not with a probe internal to the line or equipment that can be

removed and calibration checked. Currently facilities know that pressure is correct by calibration of the pressure transmitters to a set pressure and comparing it to control room data. This protocol is both an EPA and industry standard.

For temperature, refineries may have the equipment and capability to remove the probe and to use a bath or a hot-box to calibration check, there are technical reasons that it is not necessary. For example, using standard engineering equations completed in the API Technical Report 2571, if a temperature measurement should be inaccurate by more than 5 degrees F, there is less than a 1% impact on accuracy of flow-measurement caused by this temperature error. A temperature measurement would have to be inaccurate by more than 10 degrees F to have a potential 2% impact and by more than 25 degrees F to have a potential 5% impact on flow measurement accuracy. As it is unlikely for a refinery temperature indicator to drift by this amount without this being identified and fixed, it is very unlikely that inaccurate temperature indication will impact green-house gas flow measurements in amounts approaching the 5% verification level of concern.

Hence, the added burden to calibrate temperature probes would provide negligible benefit; it should be removed from the rule. This creates an added burden and cost to accomplish this for minimal accuracy improvement.

WSPA recommends removal of the proposed requirement to calibrate temperature and pressure probes. Refer exclusively to EPA MRR requirement to calibrate temperature and pressure transmitters. The EPA approach provides adequate assurance of accuracy for cap and trade. This assures consistency in approach with GHG reporters in other states and hence doesn't put California owners/operators at a competitive disadvantage. [FF 11.18 – WSPA]

Response: ARB has determined that the devices used to measure temperature and pressure must be calibrated where present to provide accurate emissions or product data. The word "probe" was replaced with "devices" in the regulation to clarify that the external diaphragm use to measure pressure is the device to be calibrated. Small changes in pressure can have a significant impact on fuel measurement, necessitating accurate pressure measurement. While less significant, temperature has sufficient impact to affect overall accuracy. These requirements are designed to support collection of the most accurate data that is feasible in order to support the cap-and-trade regulation. These devices are also subject to the demonstration in lieu of calibration sections of 95103(k) where the reporter is able to petition for postponement of calibration while demonstrating that the overall fuel use accuracy is within 5%.

M-96. Financial Transaction Meters

Comment: Section 95103(K)(7) specifically exempts financial transaction meters from the calibration requirements in Section 95103(k). WSPA requests ARB

clarify that financial transaction meters specifically include all “product” and “feedstock” measurement devices.

WSPA requests ARB clarify that financial transaction meters specifically include all “product” and “feedstock” measurement devices are exempt from the calibration requirements in Section 95103(k). [FF 11.19 – WSPA]

Response: Some meters measuring feedstocks, and most measuring products, are likely to be financial transaction meters, but not always. The exemption referred to in section 95103(k) applies only to meters used for financial transactions. However, given the accuracy needs of the MRR and cap-and-trade regulation, ARB does not believe a blanket exemption of product and feedstock measurement devices (specifically those that are not financial transaction meters) is appropriate.

M-97. Measurement Accuracy

Comment: Sections 95103(k)(4), (5), and (6) set out requirements for calibration and recalibration frequency and accuracy requirements for measurement devices. WSPA believes that in all cases the USEPA protocols and requirements should be the allowable requirement.

WSPA recommends protocols approved or cited by USEPA, California or other nationally recognized certifying organizations should be allowed for use to demonstrate measurement accuracy. [FF 11.20 – WSPA, FF 11.42 – WSPA]

Response: The U.S. EPA rule was not designed to support the accuracy requirements of a cap-and-trade program. The specification in section 95103(k)(4) on the frequency of recalibration is required so that a recalibration is performed at least once every cap-and-trade compliance period, which is not a consideration in the U.S. EPA rule. Therefore, the increased frequency of calibrations is necessary. However in the cases where disruption of normal operation would occur the operator is allowed to request a postponement of the required calibration as long as they can demonstrate to the satisfaction of ARB Executive Officer that the meter still meets the 5% accuracy requirements according to section 95103(k)(9).

In section 95013(k)(5) ARB has expanded the number of bodies acceptable for traceable standards to all “national government bod(ies) responsible for measurement standards.” ARB has determined that it is necessary to have traceable standards to assure the accuracy of meter calibrations.

ARB has also expanded the number of protocols acceptable to demonstrate accuracy in 95103(k)(6) to include the original equipment manufacturers, the American Gas Association and any protocol approved by the U.S. EPA listed in 40 CFR §98.7 as the commenter requested.

M-98. Calibration Postponements

Comment: Sections 95103(k)(9) authorizes the Executive Officer to approve postponement of calibration or required recalibration beyond January 1, 2012 in cases of continuously operating units and processes where calibration or inspection is not possible without operational disruption and where the operator can demonstrate by other means that the measurements used to calculate the GHG emissions and product data still meet the accuracy requirements.

However the request form for the postponement requires the proposed date for calibration must be the shorter of the next scheduled shutdown or three years. WSPA believes that for a continuously operating units or processes where the calibration or inspection requires an operational disruption, if an alternative means to demonstrate the accuracy of the measurements is provided, the three year restriction should not apply. [FF 11.21 – WSPA]

Response: The language in this section has been clarified to explain that a written request must be received every three years, but that does not require the calibration to occur every three years in the case of continuously operating units.

M-99. Photographic Evidence

Comment: Requires inspection and photograph of orifice plates. WSPA believes that the information collected should be used to allow entities to select an appropriate recalibration frequency.

WSPA recommends amending section 95103(k)(6)(A)(1)(b) as follows: In addition to the inspection, the plate must also be photographed on both sides prior to any treatment or cleanup of the plate to clearly show the condition of the plate surface as well as the orifice as it would have existed in the pipe. Condition of the plates may be used to select appropriate re-calibration frequency. [FF 11.44 – WSPA]

Response: ARB intended for this evidence to be used as both part of demonstration of calibration and demonstration in lieu of calibration. First, a facility must show that the plate was intact for the previously obtained fuel data to be considered valid. Additionally, if a facility can show that a plate can maintain its integrity under specific conditions for a known amount of time, this can be used to demonstrate that a similar plate, under similar conditions, is likely resulting in accurate meter readings as required under 95103(k)(9).

M-100. Frequency of Request to EO for Calibration Postponement

Comment: Where calibration cannot be done (orifice) it is possible for a facility to get postponement of calibration if demonstration of emissions can be done by other means. “The Executive officer must approve any postponement of calibration or required recalibration beyond January 1, 2012.”

However the request form for the postponement requires calibration must be the shorter of the next scheduled shutdown or three years. WSPA believes that for a continuously operating units or processes where the calibration or inspection requires an operational disruption, if an alternative means to demonstrate the accuracy of the measurements is provided, the facility will only be required to resubmit at the next three year period to reconfirm the date of calibration. [FF 11.45 – WSPA]

Response: ARB agrees and has modified the regulation accordingly in section 95103(k)(9)(B).

M-101. Meter Calibration Accuracy

Comment: Section 95103(k)(10) requires that if the calibration or re-calibration if a device fails to meet the accuracy requirements and it leads to missing data that is greater than 5% of total facility emissions a nonconformance must be noted in the verification report.

Any one meter alone that results in a missing data greater than 5% of total emissions should not be a non-conformance, and, instead, should be handled on a case by case basis. [FF 11.46 –WSPA]

Response: Section 95103(k) is consistent with section 95131(b)(13)(D) regarding a verifier's treatment of missing data. ARB believes noting a nonconformance is appropriate when 5 percent of facility emissions were determined with missing data. Under revised verification requirements this will not necessarily cause an adverse opinion, however.

M-102. Limiting Verification of Emissions and Product Data

Comment: Transportation fuel product data or other product data that are informational and not required for determination of compliance obligations or allowance allocation under cap and trade program should not be required to be verified. [FF 11.37 WSPA]

Response: ARB has modified the MRR so that only transportation fuels that are primary refinery products (as defined in section 95102) will be subject to review for material misstatement. This limits the amount of reported data that is subject to the material misstatement verification requirement, but ARB believes it appropriate for remaining reported data to still be subject to conformance review by the verifier.

M-103. Verification Timeline

Comment: States that "Contracting with verification body without providing sufficient time to complete the verification statements by the applicable deadlines will not excuse the reporting entity from this responsibility."

This is very nebulous in that there needs to be some responsibility on the verifier and ARB. Our experience shows that there are still too few verifiers that have refinery experience and yet do not have conflicts. Additionally, ARB detained at least one verifier this year putting them under a correction plan, so that it further complicates allowing sufficient time to complete the verification. With product verification added on, this problem of timing will be exacerbated.

WSPA recommends ARB provide more time for verification, make effort to avoid disrupting the verification process, and ensure that a more robust group of verifiers is available. [FF 11.38 – WSPA]

Response: Please see Responses to M-53 and M-60. ARB has accredited additional verifiers qualified to verify refinery emissions.

M-104. Best Available Data for Transportation Fuel Reporting

Comment: The requirements of existing AB32 MRR or 40CFRPart 98 do not apply to transportation fuel product data reporting requirements for terminal position holders and California import enterers, except for the refinery product data. Additional time should be provided to these facilities to install the new monitoring and/or collection systems to comply with this regulation which will not be final until later this year. These transportation fuel product data are not necessary until the 2nd cap and trade compliance period. [FF 11.40 – WSPA]

Response: ARB agrees that due to the fact that the regulation will not be finalized until late 2011, best available methods should be allowed for entities that do not have a reporting requirement under 40 CFR Part 98. These methods will be available for the 2012 emissions report only. Section 95103(h) has been modified accordingly.

M-105. Transportation Fuel Missing Data

Comment: Prohibits replacing of missing data when calculating product data. It is WSPA's understanding based on discussions with staff that this section was not intended to apply to emissions and product data reported under section 95121 (Transportation Fuel). [FF 11.47 – WSPA]

Response: ARB has clarified that reporting under section 95121 is not product data, and thus missing data substitution is allowed. The term "product" has been removed in this section.

§95104 Greenhouse Gas Emissions Data Report

M-106. Facility Energy Input and Output

Comment: Complying with the new Facility Level Energy Input and Output reporting requirements could be problematic for some power plants. LADWP requests that, for purposes of reporting facility energy input and output, that the

facility boundary be limited to just the generating station (i.e. exclude adjacent facilities under common ownership). We believe this is a reasonable approach, considering that receiving stations are functionally different and have a different industry classification (NAICS) code. This limitation should enable generating stations to use existing generating unit meters to calculate the facility energy input and output. In the absence of this limitation, generating stations may need to install additional meters strictly for the purpose of collecting data needed to comply with this new reporting requirement. If this proposed amendment is intended to apply retroactively to the 2011 emissions data report, ARB should consider delaying the implementation/effective date of this new reporting requirement to allow sufficient time for facilities to figure out what data is needed to comply and install additional metering if necessary to satisfy the reporting requirements. These new requirements are a significant change relative to the original amendments (dated October 28, 2010) to this section, which only required facilities to report energy purchases (electricity and steam, heating and cooling). The July 25, 2011 proposed modifications significantly expand this reporting requirement to include electricity “acquisitions” (which includes un-metered electricity provided to a facility), as well as electricity and thermal energy provided or sold. In addition, new requirements were added to section 95112 that will require electricity generating facilities to report the disposition of generated electricity at the facility level. It may be difficult for these facilities to comply with the new expanded facility level energy input and output reporting requirements that were added as part of the July 25, 2011 proposed modifications, since they may not have meters of the appropriate type and quality in place to measure energy input and output at the facility boundary. To complicate matters further, the boundary line for determining and reporting facility energy input and output and disposition of generated electricity includes all adjacent facilities under common ownership (based on the definition of “facility”). In some cases, receiving stations may be co-located with generating facilities, so the boundary for determining the facility input and output would include the receiving station. [FF 51.06 – LADWP]

Response: ARB added two options to section 95104 to allow reporters to exclude certain energy flows from their facility-level energy input and output reporting. The operators may exclude "electricity that is generated outside of the facility and delivered into the facility with final destination outside of the facility." The operator may also exclude "electricity consumed by operations or activities that do not generate any emissions, energy outputs, or products that are covered by this article, and that are neither a part of nor in support of electricity generation or any industrial activities covered by this article." A similar option was not added to section 95112 because the energy flows covered by section 95112 are limited to generated electricity from electricity generating or cogeneration units. The concerns raised in this comment do not apply to section 95112.

M-107. Facility Energy Input and Output

Comment: Energy input and output reporting requirements for generation facilities should be deleted or delayed. Sections 95104(d) (p. 83) and 95112(a) (p. 128) contain extensive new reporting requirements relating to facility level energy input and output. Since vertically integrated utilities operate generating stations that are connected to the utility's own grid, it is not necessary for these facilities to have metering in place to measure energy input and output. To report the information required under § 95104(d) and § 95112(a), such utilities may need to install new meters. Installing new meters can be time-consuming and expensive. If a facility needs to install new meters, it would be difficult to report as required under § 95104(d) and § 95112(a) from the date on which the revised Regulation becomes effective. Furthermore, the information collected pursuant to these sections does not appear to be essential to determining liability under the cap-and-trade regulation. For these reasons, these new reporting requirements should either be deleted, or facility operators should not be required to comply with those requirements until the 2013 data year (for reports due in 2014). This would allow time for meters to be installed and tested. [FF 49.23 – SCPPA]

Response: See Response to M-106 ARB believes that with the modification described in Response to M-106, reporting entities will be able to comply with these requirements prior to the 2013 data year. The regulation does not require metering of facility energy input and output; an engineering calculation is acceptable.

M-108. Reporting of Net Power

Comment: WSPA recommends that the requirement be clarified that net power in and power sold for the facility should be reported. Amend section 95104(d) as follows: The operator must include in the emissions data report information about the facility's net energy acquisitions and energy provided or sold as specified below. The operator must report this information for the calendar year covered by the emissions data report, pro-rating purchases as necessary to include information for the full months of January and December. [FF 11.48 – WSPA]

Response: ARB believes that the data on facility energy acquisition and energy provided or sold should inform the overall facility energy balance and the industrial efficiency of producing products and energy (such as electricity or steam). Facility energy input and output data netted out to an annual basis is likely to make the facility's industrial efficiency appear lower than it really is, and this could be disadvantageous for the reporting facility. Reporting facilities are encouraged to report facility energy input and output using the readings directly recorded by individual meters if the meters are not 2-way meters. To avoid the appearance of low industrial efficiency or reporting of a negative net generation number, any necessary netting of facility energy input and output should be done at a smaller interval that reflects the variations in the level of operations, if

possible. For example, if a refinery generates electricity from its cogeneration system on certain days, but not on other days, netting at the end of each day perhaps may make sense for the refinery. ARB believes that these provisions are adequate and already address the commenter's concerns. As such, not change is required.

§95105 Document Retention and Record Keeping Requirements

M-109. Reference is Incorrect

Comment: The first paragraph of Section 95105 has a reference to Section 95103(c), which should now refer to Section 95103(a)(9). Section 95105(c) contains two references to section 95105(c)(8). Section 95129(d) has a reference to subsection 95103(h) for an accuracy standard, which should now be 95103(k). [FF 18.03 – SCAP]

Response: Please see Response to M-66.

M-110. GHG Management Plan Calibration Date

Comment: Comment on Section 95105(c)(4): The second use of the word "dates" should be changed to the term "schedule" to be consistent with existing federal, state and local requirements that require facilities to conduct calibrations or inspections within timeframes (e.g. annually, quarterly, etc) versus a specific date. As stated in Sections 95103(K)(4)(c) and (e) periods of time are allotted. §95105(c)(4) "The dates of measurement device calibration or inspection, and the dates scheduled period of the next required calibration or inspection. [FF 55.21 – SEU]

Response: Dates may be approximate, but must be sufficient to track the expected frequency of calibration. No change is necessary.

M-111. GHG Management Plan

Comment: Facilities or Suppliers are required to complete and retain a GHG Monitoring Plan (GMP) according to 40 CFR 98.3(g)(5). ARB also specifies additional parameters that the GMP must contain. The GMP for 40 CFR 98 Subpart W facilities was due to be completed April 1, 2011. ARB requires additional information for PNGS reporters to be included in the GMP which is not currently captured in the 2011 Subpart W GMP. ARB has not proposed a deadline for PNGS reporters to have prepared a complete GMP. WSPA recommends that the 2011 GMP for Subpart W will satisfy the ARB GMP requirement for 2011. If ARB does not agree, it should provide a reasonable deadline to complete the ARB GMP for PNGS reporters. [FF 11.69 – WSPA]

Response: ARB has made changes to the GHG Management Plan in section 95105(c) to clarify that facilities with compliance obligations and covered emissions equal to or exceeding 25,000 MT CO_2e are required to have a GMP

available for verifier review. So the effective deadline is when the emissions data report is completed.

M-112. GHG Management Plan Metering Requirements

Comment: The additional content for GMP includes identification of measurement device location and the location of any additional devices or sampling ports required for calculating flows and emissions (e.g. temperature, total pressure, HHV). We understand that this requirement is limited to only those meters used for emissions calculations or product data reporting. Please confirm that our understanding is correct. [FF 11.70 – WSPA]

Response: The commenter is correct; ARB has made changes section 95105(c)(3) to provide clarification.

M-113. GHG Inventory Program for Electricity Importers and Exporters

Comment: The Utilities believe that requiring an internal audit program is overly complex and unnecessary. Smaller utilities may not have additional personnel who are familiar with power transactions to dedicate to such a program. The Utilities question why an additional auditing mechanism is necessary when the MRR already requires a rigorous third party verification program that is sufficiently thorough. If CARB continues to believe that an internal audit is necessary, the Utilities request additional clarification to ensure that the Utilities' internal audit program is sufficient for verification and to avoid conflicts between different interpretations of the requirement. [FF 05.07—REU]

Response: ARB concluded that electricity importers and exporters with internal audit programs are more likely to achieve conformance and remain in conformance with the MRR. While independent verification is thorough and necessary, because it occurs well into the subsequent data year, both elements are necessary for an effective compliance program. Many regulated entities implement internal audit programs as part of an overall risk management strategy to minimize enforcement penalties.

For example, transactions and the associated emissions that occur in 2011 will be reported by June 1, 2012. Verification occurs after the report has been submitted and is completed by September 1, 2012. Some instances of noncompliance found by verifiers in 2012 cannot be corrected to retroactively address 2011 data and may adversely affect the quality of 2012 data. An effective internal audit program reduces the probability that multiple years of data may be adversely affected.

Since this requirement is consistent with section 95104 (c) of the current regulation, ARB expects retail providers and marketers to have "systems of internal audit, quality assurance, and quality control for the reporting program and the data reported" currently in place for 2008-2010 data. The requirement

for an internal audit program is also consistent with best practices recognized internationally. The system of voluntary international standards developed by the International Organization for Standardization (ISO) includes standard 14001 for Environmental Management Systems, which recognizes both internal audit and independent verification as key elements of effective environmental management.

ARB recognizes the commenter's concern about lack of qualified personnel in a small organization to review the program. Personnel tasked with internal audit responsibilities typically do not duplicate the expertise of the area they review. The commenter requests "additional clarification to ensure that the Utilities' internal audit program is sufficient for verification and to avoid conflicts between different interpretations of the requirement." ARB requires nothing more than a "written description of an internal audit program that includes emissions data report review and documents ongoing efforts to improve the GHG Inventory Program," pursuant to section 95105(d)(10). In short, the internal audit program must be described in writing and the verifier or ARB must be able to confirm that the internal audit practices are consistent with the written description. The internal audit program must accomplish at least two functions: (1) review the emissions data report and (2) document ongoing efforts to improve the GHG Inventory Program. To determine conformance, the verifier or ARB may review objective evidence that the two functions are performed. It is within the discretion of the reporting entity to determine the extent to which its internal audit program is integrated with other functions in the organization, effective, and adds value.

§95106 Confidentiality

M-114. Seek Confidential Treatment for Power Purchase Transaction Data
Comment: SCE supports the ability of an entity to seek confidential treatment for power purchase transaction data. SCE interprets Section 95106(b), which states "Any entity submitting information. . .may claim such information as 'confidential,'" to be consistent with and permissive of such a practice. SCE believes that no further changes should be made to this section. [FF 37.07 – SCE]

Response: No further changes were made to section 95106, which is consistent with the comment provided.

N. Subarticle 1. Enforcement and Standardized Methods §95107 – §95109

§95107 Enforcement

N-1. Retain Ability to Enforce Against Negligent Actions

Comment: We strongly recommend that ARB retain the ability to enforce against negligent actions, and strict liability for errors and omissions, etc. While we agree that severe penalties should apply to knowing and intentional violations, intent can be very difficult to establish, and it is important for the integrity of the program that lesser violations be subject to enforcement action, and penalty amounts up to the limits prescribed in the Health and Safety Code. ARB always retains the ability to use its enforcement discretion, should it feel that the facts do not warrant those penalty levels [FF 15.02 – CAPCOA]

Response: While the comment does not refer to any specific modifications to section 95107, ARB appreciates and agrees with the commenter's recommendation. Existing statutes provide for different penalties based on different mental states, namely strict liability, negligence, knowledge, and intent. In addition, and for the reasons described in Response to B-1, ARB notes that it has retained the strict liability enforcement language from the originally proposed amendments.

N-2. Concern About Unilateral Authority to Assess Penalties

Comment: Concerned with provisions that essentially allow CARB unilateral authority to assess penalties for any GHG ton or data measure or collection failure as a separate penalty. Specifically, subparts (b) and (c) of Section 95107 allows CARB to penalize operators if it has determined that there was a failure to report "each" metric ton of CO_2e emitted, or "each" failure to measure, collect, record or preserve information required for the report regardless of whether the operator has obtained a positive or qualified positive verification opinion. The MRR allows CARB to assess penalties for "any" ton of GHG emissions found to not be reported, despite the fact the amount of GHG tons are well below the level of accuracy required by the MRR and verification process requirements. Thus, penalties could be assessed in the amount of tens if not thousands of dollars, even though the operator maintains a positive verification of their report. Request that CARB revise Subparts (b) & (c) to reflect that the penalties would only be imposed if it was determined that the amount of emissions the facility under-reported exceeded the +/- 5% accuracy level and only for the amount above 5%. For emissions below the 5% accuracy level, CalChamber recommends that no penalty be assessed, unless the Executive Officer determines that the facility engaged in falsifying, concealing or covering up the information, resulting in the under reporting of emissions. Incorporating these suggested revisions to section 95107 of the MRR will create parity and consistency with the cap-and-trade's penalty or "Violation" provision of the regulation, Section 96104(c)(1-3), which is

intended to capture that bad and fraudulent actors under the cap-and-trade program. [FF 53.02 – CCC]

Response: ARB disagrees with the commenter that ARB has unilateral authority to assess penalties. Health and Safety Code section 38580 provides ARB with enforcement authority over AB 32 regulations, including the authority to define the violations. This authority does not extend to assessing, imposing or determining final penalty amounts. The governing statutes allow ARB to *seek* penalties in an administrative or judicial proceeding. In many of its enforcement actions, ARB and the entity from whom ARB is seeking penalties will reach a mutual settlement agreement, including an agreed upon penalty amount. ARB may seek penalties in an administrative or judicial action, in which the ultimate penalty amount is determined by a neutral judge, based on the statutory penalty structure (see Response to B-1). In no instance is ARB able to unilaterally assign a penalty amount on a violator.

In response to the commenter's request for a safe harbor from enforcement action when reported emissions are within the +/-5% accuracy measurement related to verification, ARB notes that it is not obligated to pursue an enforcement action against an entity which receives a positive or qualified positive verification statement. However, as described in Response to B-11, ARB believes it is necessary to maintain the ability to enforce against such under-reporting to ensure sufficient deterrence from any economic benefits that could be gained by under-reporting. For these reasons, and those set forth in Response to B-1, ARB declines to make the modifications suggested by the commenter.

Finally, ARB assumes the commenter's reference to section 96104(c) of the cap-and-trade regulation was meant to reference section 96014(c). This section is in addition to the underlying strict liability provisions in section 96104, as clarified by section 96014(d), and does not create a safe harbor of any kind for unintentional acts. As such, ARB does not agree that including such a provision in the MRR is appropriate.

N-3. Provide Autonomous Dispute Resolution Process

Comment: CARB's Executive Officer (EO) retains sole authority of program implementation both for the cap-and-trade and mandatory reporting regulations, including determining whether regulated parties have complied with regulations and setting the penalties for each program violation. These important decisions will be made unilaterally without a public process and will have an impact on California business. It is important for these regulated entities to have a fair and transparent process by which to appeal decision. CalChamber supports the adoption of a formal autonomous dispute resolution process that would enable facilities to challenge and resolve disagreements prior to potential enforcement actions through an equal process for all parties involved in any dispute. This program should use an unbiased mechanism to resolve disputes, variances, and

penalty disagreements with the EO. Without a fair, independent process an entity's only recourse is to challenge the decision in court, which requires significant resources and time, and may not resolve the underlying problem. Support a transparent process that helps reduce money and time spend defending lawsuits so regulated entities can focus time and efforts on job creation and economic stimulation. Without a fair and transparent dispute resolution process, issues that could be resolved relative quickly could become time-consuming litigation that could hinder the goals of AB 32. [FF 53.06 – CCC]

Response: The Executive Officer does not unilaterally "set" penalties. See Response to N-2. ARB notes that the creation of a dispute resolution process is outside and beyond the scope of these regulatory amendments. Notwithstanding this, ARB disagrees with the underlying premise of the commenter's suggestion; namely that there is no fair, independent, autonomous method of resolving these disputes. As the commenter acknowledges, the existing recourse is to challenge a decision in court. That process is well established and understood by regulated entities, the public, and ARB. Inventing a new, additional dispute resolution process, whether that would be through the creation of a hearing board or an administrative hearing, will not necessarily reduce the time or expense of resolving such disputes. In fact, and contrary to the claimed rationale of the commenter, ARB believes such additional process may actually increase the time and expense of resolving these matters, since parties could still ultimately end up back in court. With the timeline required by the cap-and-trade regulation, including an additional dispute resolution process in the MRR would give rise to delay that could have broader market impacts. See also Responses to B-22 and N-2.

N-4. Provide a Dispute Resolution Process

Comment: The proposed rule gives the Executive Officer authority to impose penalties with no avenue for appeal short of the California court system. CLFP urges CARB to develop a dispute resolution process that will provide parties an opportunity to resolve disagreements that involve regulatory interpretation and requirements, including enforcement actions, in lieu of engaging in expensive and time consuming litigation. [FF 45.07 – CLFP]

Response: See Responses to B-22, N-2, and N-3.

N-5. Concern About Lack of Appeals Process

Comment: CCEEB believes that it is entirely appropriate to expect companies to maintain auditable quality data for verification and enforcement purposes. Consistent with our recommendation that reporting protocols be consistent with Climate Action Reserve protocols so that the registry can be relied upon, CCEEB urges that auditing and enforcement be conducted on a statewide basis. CCEEB has major concerns with the lack of an appeals process for enforcement actions of 'alleged' violations of data reporting requirements. In the event that mandatory reporting data at a specific facility is not available due to monitoring equipment

failure, out of tolerance calibration, etc., procedures should be specified so that a facility can avoid incurring a violation and the resultant penalties. While alternative emissions calculation methods are specified in the regulations, those particular calculation formulas may not be as accurate as best available data/engineering estimates from the facility. With hundreds of facilities reporting to the ARB it is irrefragable that disputes will arise between the regulated community, 3rd party verifiers, and the ARB. Without a formal and structured process there will be no predictability to how these issues will be resolved further exacerbating the uncertainties to an emerging program and the inability to demonstrate compliance while the specific facility issues are resolved. Additionally, every air district and other statewide boards, departments or offices have statutory structures to resolve disputes in a manner that allows the facility to remain in compliance. [FF47.03 – CCEEB]

Response: The commenter's recommendation on conducting enforcement on a statewide basis is not specifically related to language in section 95107, but ARB agrees that auditing and enforcement actions will be conducted on a statewide basis. In relation to the commenter's concerns regarding dispute resolution, see Responses to B-22 and N-3. In relation to an "appeals process," the commenter may mistakenly believe that ARB can unilaterally impose penalties; see Response to N-2.

N-6. Provide a Dispute Resolution Process

Comment: The proposed rule gives the Executive Officer authority to impose penalties with no avenue for appeal short of the California court system. CMTA urges ARB to develop a dispute resolution process that will provide parties an opportunity to resolve disagreements that involve regulatory interpretation and requirements, including enforcement actions, in lieu of engaging in expensive and time consuming litigation. [FF 29.06 – CMTA]

Response: See Responses to B-22, N-2, and N-3.

N-7. Enforcement Provisions Are Too Severe, Vague, and Duplicative

Comment: Several provisions of Section 95107 remain problematic because they are too severe, excessively vague, and duplicative of existing authority. Sections 95107(c) and (d) are excessively vague -- Section 95107(c) defines "[e]ach failure to measure, collect, record or preserve" required information as a separate violation. This provision could be interpreted as treating measuring, collecting, recording, and preserving as separate violations -- in which case a single error could result in four violations. This provision should be modified to clarify that a single error results in a single violation. Section 95107(d) allows the Executive Officer to "revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article." Absent further guidelines to ensure CARB's actions in revoking or modifying an Executive Order are proportionate and relevant to the magnitude of a violation, actions taken under this provision would likely be arbitrary and capricious. [FF 12.17 – CSCME]

Response: Regarding the commenter's concerns with former section 95107(c) (now modified section 95107(d)), see Responses to B-6. Moreover, and as explained in Response to B-2, the Executive Orders issued pursuant to the MRR only relate to the accreditation of verifiers and verification bodies. As such, they do not apply to reporting entities and have no impact on reporters in complying with the MRR. Moreover, ARB disagrees that the revocation or modification of an Executive Order would likely be arbitrary or capricious, given that such revocation may only occur pursuant to the requirements of section 95132(d).

N-8. Enforcement Provisions Are Duplicative and Unnecessary

Comment: Sections 95107(e) and (g) are unnecessary because they are duplicative of existing authority -- Section 95107(e) defines the violation of any condition of an Executive Order that is issued pursuant to this article as a separate violation. This provision is unnecessary, because Executive Orders typically specify the consequences of a violation of the Order. Moreover, "condition(s)" may not be connected, such that treating multiple conditions as separate violations could give CARB more than "one bite at the apple" for what should be considered a single violation. Section 95107(g) states that any violation of this article may be enjoined pursuant to Health and Safety Code section 41513. This provision is unnecessary because it duplicates existing authority. [FF 12.18 – CSCME]

Response: As explained in Responses to B-2 and N-7, the Executive Orders issued pursuant to the MRR only relate to verification bodies and verifiers. As such, no impact on reporting entities should be expected from modified section 95107(f) (formerly 95107(e)). Moreover, this section merely clarifies in the regulation that the violation of any condition in the Executive Order would constitute a violation of the regulation, which ARB believes is necessary to ensure clarity. Regarding the commenter's concern that section 95107(g) regarding injunctions is unnecessary because it is duplicative of statutory authority, ARB believes this provision provides necessary clarity in defining what constitutes a violation and the resulting enjoinable nature of the violation.

N-9. Corrections Made During Verification Should Not Be Subject to Penalties

Comment: 95107(a) the phrase "contains information that is incomplete or inaccurate" should be removed for the following reasons: There is no defined standard to determine whether a report is "incomplete or inaccurate". The purpose of verification is to identify and correct any errors to ensure the reports are as accurate as possible, therefore corrections made to an emissions data report during the verification process should not be subject to penalties. MRR section 95131(b)(9) requires the reporting entity to "make any possible improvements or corrections to the submitted emissions data report, and submit a revised emissions data report to ARB". MRR 95107(b) provides for penalties for under-reporting of emissions (inaccuracy). The following language should be used:

(a) Each day or portion thereof that any report ~~or to include in a report all information required by this article, or late submittal of any report, shall constitute a single, separate violation of this article for each day that the report has not been submitted beyond the specified reporting date. For the~~required by this article remains unsubmitted or is submitted late~~, or contains information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method~~is a separate violation. For purposes of this section, ~~"~~"report~~"~~" means any emissions data report, verification ~~opinion~~statement, or other ~~document~~record required to be submitted to the Executive Officer by this article. [FF 51.07 – LADWP]

Response: See Responses to B-12 and B-24. In addition, ARB believes that maintaining a distinct enforcement provision to ensure timely, accurate, and complete reporting is necessary to deter noncompliance and has therefore declined to make the requested modifications.

N-10. Should Not Be Subject to Penalties Prior to Verification
Comment: We believe that the Mandatory Reporting and cap-and-trade regulations must recognize the period when a facility is working in good faith with its verifier to obtain a positive or qualified positive emissions report prior to the verification deadline date, and should not be subject to penalties under Section 95107. [FF 17.03 – ABIG]

Response: See Response to B-12 and N-11.

N-11. Enforcement Only After Verification
Comment: We appreciate the California Air Resources Board (CARB) taking into account the concerns we highlighted in our May 16, 2011 letter and making some modifications to the penalty provisions in both the Mandatory Reporting and Cap and- Trade regulations. The revisions recognize in the cap-and-trade regulation emissions that were under reported, but do not exceed a positive verification report accuracy level of 5%, would not be subject to a penalty, we support this change. However, this same recognition of a positive verification is not recognized in the Mandatory Reporting regulation (MRR), and the enforcement provisions allow CARB the authority to assess a per ton penalty on "Each metric ton of CO_2e emitted but not reported" regardless of the fact the facility obtained a positive or qualified positive verification. The AB 32 IG requests CARB revise Section 95107(b) whereby a penalty would not be imposed if the amount of emissions that were not reported were determined to be below the 5% accuracy verification requirement in the MRR, unless CARB determined the facility submitted false information. If CARB made such a determination, we recommend incorporating the same language CARB included in the cap-and-trade regulation, Section 96014 (c)(1-3) entitled "Violations", which states it is a violation if it is determined the facility falsified, concealed or covered up by "…any trick, scheme or device a material fact," including any false, fictitious or fraudulent statements

or made or used any false writing or document knowing it contained false, fictitious or fraudulent statements. [FF 17.01 – ABIG]

Response: Reporting entities are required to submit accurate and complete reports as of the initial reporting deadline. They are also required to undergo the verification process, and if necessary, make corrections as appropriate. Verification serves as quality assurance/quality control of the submitted data, and is the basis of a reporting entity's cap-and-trade compliance obligation. However, the verification process is not intended to relieve the obligation of reporting accurately and completely as of the initial reporting deadline. ARB believes that the inclusion of a 5% "safe harbor" from enforcement during the verification process would weaken the deterrence of requiring accurate reporting as of the initial reporting deadline, leading to an over-reliance on the verification bodies to correct inaccuracies in the reported emissions, which is something verification bodies are prohibited by the regulation from doing. Therefore, ARB declines to make the suggested modification and will not include a 5% "safe harbor" provision in the enforcement section. ARB has modified section 95107(c) to clarify that during the verification process, ARB will not initiate any enforcement actions. However, this modification is intended as a clarification, not as a "safe harbor."

In practice, if a reporting entity is complying with the reporting requirements and reporting deadlines, and working with its verification body as required by the MRR, the entity will likely remain in compliance. However, including the requested "safe harbor" would unnecessarily tie ARB's hands in the event enforcement action is deemed necessary, especially given the MRR's importance in relation to the cap-and-trade regulation (see Response to B-11). Moreover, as described in Response to B-12, ARB will take into account all relevant circumstances, including the nature of the violation and actions taken by reporting entities to comply with the regulatory requirements, prior to seeking any penalty amount. Finally, because any enforcement assessment would also factor in any discovered false information, and for the reasons contained in Response to N-2, ARB declines to make the change the commenter is asking for with respect to language from section 96014(c)(1)-(3) of the cap-and-trade regulation.

N-12. Provide Enforcement "Safe Harbor" for Reporters During Verification Period
Comment: The proposed compliance timelines are too short to allow sufficient time for a regulated entity to work with the verifier for a positive verification. With the additional monitoring requirements set forth in the July 2011 Proposed Modifications, it would be prudent to provide a "safe harbor" from enforcement for facilities that are on a compliance pathway toward a positive verification. ARB should clarify that when a report is submitted and the entity is working with the verifier on corrections or edits, ARB will not impose penalties or allege violations during the verification period. SCE believes that if the pertinent emissions data report did not contain a material misstatement as determined through the

verification process, and the newly identified unreported emissions are not due to an intentional error or fraud, there should be no violation of either the mandatory reporting or the market-based compliance mechanism regulations unless the entity failed to submit the additional compliance instruments. The regulated entity should, however, still be required to submit in a timely manner (measured from the date the shortfall was formally reported to the entity) compliance instruments in the amount of the excess emissions. [FF 37.08 – SCE]

Response: ARB believes that the timelines for reporting and subsequent verification are sufficient to allow reporting entities to meet the requirements of the regulation; in fact, those timelines are necessary to ensure that entities covered by the cap-and-trade regulation are able to meet the cap-and-trade timelines as well. Regarding the provision of a "safe harbor" from enforcement during verification, and for those entities which receive a positive or qualified positive verification statement, ARB declines to make that change for the reasons identified in Response to N-11. In addition, the underlying obligation of reporting entities is to report accurately as of the initial reporting deadline. ARB therefore does not believe that verification provisions, including those for material misstatement, should be automatically tied to potential enforcement actions. See also Response to B-12. Finally, ARB notes that it has modified the cap-and-trade regulation to address the layering concern regarding whether under-reported tons would be enforced against in the MRR and/or the cap-and-trade regulation. See Response to B-6.

N-13. Provide Safe Harbor from Enforcement Prior to Verification
Comment: Compliance timelines do not allow enough time for a facility to work through their verifier for a positive verification. With the additional monitoring requirements set forth in these 15-day changes, the ARB should examine these timelines or provide a "safe harbor" from enforcement for facilities that are on a compliance pathway towards a positive verification. [FF 47.01 – CCEEB]

Response: See Responses to N-11 and N-12.

N-14. Penalties Should Not Be Imposed Prior to Verification
Comment: Believe that the MRR and C&T regulations must recognize the period when a facility is working in good faith with its verifier to obtain a positive or qualified positive emissions report prior to the verification deadline date, and should not be subject to penalties under Section 95107. [FF 42.06 – CIPA]

Response: See Responses to B-12, N-11, and N-12.

N-15. Penalties Should Be Imposed Following Verification
Comment: CLFP also requests that CARB clarify during the period when the facility is working with their verifier on their report, any corrections, edits, clarifications, etc., would not be subject to any penalties or violations during this

period. Any penalties that could be applicable should be after the verification deadline date. [FF 45.06 – CLFP]

Response: See Response to B-12. In addition, ARB has modified section 95107(c) to provide clarity that it will not commence any enforcement action until after any applicable verification deadline. However, this modification is not intended to relieve the reporting entity of the obligation of submitting a complete, accurate, and timely report as of the initial reporting deadline.

N-16. Do Not Impose Penalties Prior to Verification

Comment: CMTA also requests that ARB clarify during the period when the facility is working with their verifier on their report, any corrections, edits, clarifications, etc., would not be subject to any penalties or violations during this period. Any penalties that could be applicable should be after the verification deadline date. [FF 29.03 – CMTA]

Response: See Response to B-12. In addition, ARB has modified section 95107(c) to provide clarity that it will not commence any enforcement action until after any applicable verification deadline. However, this modification is not intended to relieve the reporting entity of the obligation of submitting a complete, accurate, and timely report as of the initial reporting deadline.

N-17. No Penalties Should Be Assessed During Verification

Comment: The ARB should clarify that when a MRR is submitted and the operator is working with the verifier on corrections/edits… no penalties or violations would be assessed during this period. CCEEB believes that if the pertinent emissions data report did not contain a material misstatement as determined through the verification process, and the newly identified unreported emissions are not due to an intentional error or fraud, the covered entity would be required to submit in a timely manner (measured from the date the shortfall was formally reported to the entity) compliance instruments in the amount of the excess emissions, but there would be no violation of either the mandatory reporting or the market-based compliance mechanism (cap-and-trade) regulations unless the entity failed to submit the additional compliance instruments. CCEEB further suggests the following:

- The ARB should adjust without penalty all pertinent baselines for which a calculation, verification or reporting from a nonmaterial misstatement or mistake is found.
- If a mistake is made resulting in CO_2e emissions over the amount reported and compliance instruments not surrendered, the “new” compliance obligation would only be that amount over the 5 percent error margin.
- If a mistake is made resulting in CO_2e emissions under the amount reported and for which compliance instruments were surrendered, compliance instruments should be returned to the account of a covered entity for the amount over 5 percent error margin.

- CCEEB is not proposing any restriction or limit on ARB's efforts to assure program integrity, such that a mistake does not include any tampering of meters or other actions knowingly taken contrary to the AB 32 regulations. Similarly, the proposed "safe harbor" for mistakes in no way alters or constricts ARB's audit and program oversight authority. [FF 47.02 – CCEEB]

Response: See Responses to N-11, N-12, B-6, and B-12. From the commenter's suggestion, it is unclear which baseline in the MRR the comment is seeking to address. Moreover, this response only addresses those portions of the comment which directly address modifications made to the MRR. It does not address the commenter's suggestions which are related to regulatory modifications in the cap-and-trade regulation.

N-18. Modify Enforcement Provisions for Unverified Data, Modify Per Ton Violations
Comment: PG&E proposes deleting "or contains information that is incomplete or inaccurate" from section 95107(a), because these violations are covered in 95107(c). Power plants and other large industrial facilities with combustion sources may individually emit more than one million metric tons (MMT) of CO_2 per year. For a facility emitting one MMT per year, even a one percent error could result in over or under reporting 10,000 metric tons. At one violation per ton, with strict liability penalties of up to $1000 per violation, a one percent error results in penalty exposure of up to $10,000,000. To bring potential penalties more into line with current stationary source penalty exposure, PG&E suggests that a more appropriate penalty structure would be one violation per 1000 tons underreported. PG&E also suggests that entities that fail to submit a verified emissions data report be addressed differently than entities that submitted a verified emissions data report but an error was discovered later. We offer the following revisions to Section 94107:

> (a) Each day or portion thereof that any report required by this article remains unsubmitted~~,~~ or is submitted late~~, or contains information that is incomplete or inaccurate~~ is a separate violation. For purposes of this section, "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article.
> (b) Under-Reported Emissions.
> (~~b~~1) ~~Each~~For any covered entity that fails to submit a verified emissions data report, each thousand metric ~~ton~~tons of CO_2e emitted but not reported as required by this article is a separate violation.
> (2) When a covered entity submitted a verified emissions data report for a compliance period but the Executive Officer determined, through an audit or other information, that the entity under-reported its emissions, each thousand metric tons of CO_2e for which a compliance instrument is submitted under section 95858(a)(2) for that compliance period is a separate violation

(c) Each failure to measure, collect, record or preserve information required by this article ~~for the calculation of emissions or that this article otherwise requires be measured, collected, recorded or preserved~~ constitutes a separate violation ~~of this article~~except to the extent that the missing data procedures specified in section 95129 are applied.
(d) The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.
(e) The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.
(f) Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b), and the degree of culpability for the violation.
(g) Any violation of this article may be enjoined pursuant to Health and Safety Code section 41513. [FF C&T 52 – PGE]

Response: See Responses to B-8, B-11, N-9, and N-26. Moreover, and as explained in Response to B-1, the penalty structure for the MRR derives directly from (and is dependent on) existing statutory provisions in the Health and Safety Code. Prior to seeking any penalty amount, ARB must consider all relevant circumstances, which would include differentiating between entities that fail to submit a verified emissions data report and those that submit verification statements. Since this consideration is statutorily mandated, and already accounted for, ARB declines to make the modifications suggested by the commenter.

N-19. Do Not Impose Penalties for Errors Identified During Verification
Comment: SCE recommends the addition of the phrase "in a verified emissions data report" to avoid the imposition of penalties for minor errors that are identified and corrected during the verification process (resulting in a revised report submitted under subsection 95131(b)(9)). SCE recommends the insertion of the following bold text into Subsection 95107(b): "Each metric ton of CO_2e emitted but not reported in a verified emissions data report as required by this article is a violation. [FF 37.09 – SCE]

Response: See Responses to B-12, N-11, and N-12. In addition, ARB has modified section 95107(c) to provide clarity that it will not commence any enforcement action until after any applicable verification deadline. However, this modification is not intended to relieve the reporting entity of the obligation of submitting a complete, accurate, and timely report as of the initial reporting deadline. Moreover, ARB notes that not all reporting entities are required to undergo the verification process. The modification requested by the commenter would essentially render the under-reporting violation specified in modified section 95107(c) (formerly section 95107(b)) meaningless for those reporters, and ARB has declined to insert the recommended language.

N-20. Do Not Impose Penalties Prior to Verification, Tiered Penalties
Comment: ARB should eliminate section 95107(b) or incorporate language that it only triggers penalties in the event an operator fails to make corrections by the verification deadline. CCEEB suggests a tiered penalty tree that imposes high penalties for demonstrated non-compliance and lower penalties for demonstrated earnest efforts to comply. Also incorporate language clarifying the difference between a material misstatement and information submitted with an intent to deceive.

Suggested language for 95107

(a) Each day or portion thereof that any report required by this article remains unsubmitted~~,~~ or is submitted late~~, or contains information that is incomplete or inaccurate~~ is a separate violation. For purposes of this section, "report" means any emissions data report~~, verification statement,~~ or other record required to be submitted to the Executive Officer by this article.

(b) Under-Reported Emissions.

(~~b~~1) ~~Each~~For any covered entity that fails to submit a verified emissions data report, each thousand metric ~~ton~~tons of CO_2e emitted but not reported as required by this article is a separate violation.

(2) When a covered entity submitted a verified emissions data report for a compliance period but the Executive Officer determined, through an audit or other information, that the entity under-reported its emissions, each thousand metric tons of CO_2e for which a compliance instrument is submitted under section 95858(a)(2) for that compliance period is a separate violation.

(c) Each failure to measure, collect, record or preserve information required by this article ~~for the calculation of emissions or that this article otherwise requires be measured, collected, recorded or preserved~~ constitutes a separate violation ~~of this article~~except to the extent that the missing data procedures specified in section 95129 are applied.

(d) The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.

(e) The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.

(f) Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b), and the degree of culpability for the violation.

(g) Any violation of this article may be enjoined pursuant to Health and Safety Code section 41513. [FF47.06 – CCEEB]

Response: See Responses to N-11, N-12, N-18, and N-26.

N-21. Enforcement Should Apply to Verified Reports

Comment: Paragraph 95107(b) should only refer to verified reports. Penalties should not be incurred for minor errors that are identified and corrected during the verification process. Penalties should only be incurred for errors in verified reports, because those are the only errors that will result in incorrect calculations of compliance obligations. No compliance calculations will be based on unverified reports. However, § 95107(b) (p. 88) as currently drafted would result in penalties being applied for errors that are corrected in revised reports submitted pursuant to § 95131(b)(9), even though those errors would not affect the calculation of an entity's compliance obligation under the Cap and Trade Regulation. That would be inconsistent with at least one of the purposes of the verification process, which is to assure that compliance obligations are calculated on the best available data. If penalties are applied for errors that an entity corrects during verification, entities will be less willing to identify and correct errors, resulting in less reliable verified reports. For these reasons, § 95107(b) should be amended as shown to provide for per-ton penalties to apply only for errors in verified emissions data reports. (b) ~~Each~~A metric ton of CO_2e emitted but not reported in a verified emissions data report as required by this article is a ~~separate~~ violation. [FF 49.06 – SCPPA]

Response: See Responses to B-12, N-11, N-12, and N-19.

N-22. Inappropriate to Penalize Facility With Positive Verification

Comment: It is inappropriate for ARB to solely retain authority to assess a per ton penalty without recognizing if a facility has satisfactorily met its reporting obligations by obtaining a positive or qualified positive verification from their verifier as required in Section 95130. Section 95107, as written, unfairly subjects facilities to penalties that are prescribed in one section of the MRR, despite the fact they have successfully demonstrated compliance of their reporting obligation (by meeting the + 5% accuracy requirements) within the very same regulation. This creates a situation where the work of a facility and a verifier, despite their mutual efforts, is made moot (or perhaps worthless), and as a result, a per ton penalty can still be imposed by ARB. This raises troubling policy and legal questions regarding whether having such authority regardless of the fact an operator has demonstrated compliance with GHG emissions reporting requirements. [FF 11.23 – WSPA]

Response: The commenter is mistaken in assuming that an operator that complies with the MRR reporting requirements can be penalized. See also Responses to B-12, N-11, and N-12.

N-23. Clarify That Unverified Data Not Subject to Penalties or Violations

Comment: Request that CARB clarify during the period when the facility is working with their verifier on their report, any corrections, edits, clarifications,

etc., NOT be subject to any penalties or violations during this period. [FF 53.04 – CCC]

Response: See Responses to B-12, N-11, and N-12. In addition, ARB has modified section 95107(c) to provide clarity that it will not commence any enforcement action until after any applicable verification deadline. However, this modification is not intended to relieve the reporting entity of the obligation of submitting a complete, accurate, and timely report as of the initial reporting deadline.

N-24. Enforcement Should Be Based on Verified Report

Comment: §95107 Enforcement (b) should be modified to make reference to verified emission report rather than report. The enforcement provisions of §95107 (b) state that "Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation." PacifiCorp requests that this provision be modified such that the emitted tons are based on the verified emissions report due September 1 rather than the initial June 1 report. The MRR allows for the reporter to modify and make changes to the originally submitted data reports as part of the verification process. PacifiCorp does not believe that penalties should be incurred for minor or administrative errors that are identified and corrected during the verification process. [FF 39.03 – PC]

Response: See Responses to B-12, N-11, and N-12. In addition, ARB has modified section 95107(c) to provide clarity that it will not commence any enforcement action until after any applicable verification deadline. However, this modification is not intended to relieve the reporting entity of the obligation of submitting a complete, accurate, and timely report as of the initial reporting deadline.

N-25. Clarify that Penalties Not Applicable During Verification

Comment: WSPA requests that ARB clarify in Section 95107 that penalties are not applicable during the period when the facility is working with their verifier, as required, to review, clarify, edit and provide the required information necessary to obtain a positive verification. If in the event the verifier discovers the facility has falsified, concealed, or made false representations, and such actions resulted in an exceedance of 5% or more of the amount reported in the verified report, penalties should be applied within the proposed revisions to Subpart (b) and (c) above. WSPA proposes ARB incorporate the following revisions in Section 95107:

"(a) Each day or portion thereof that any report ~~or to include in a report all information required by this article, or late submittal of any report shall constitute a single, separate violation of this article for each day that the the~~ required by this article…."

~~(b) Except as otherwise provided in this section, each day or portion thereof in which any other violation of this article occurs is a separate offense.~~

~~(c)~~ ~~(b) Each metric ton of CO_2E emitted but not reported as required this article is a separate violation.~~

(b) Under-Reported Emissions.

(1) ~~Each~~For any covered entity that fails to submit a verified emissions data report, each thousand metric ~~ton~~*tons* of CO_2e emitted but not reported as required by this article is a separate violation ~~pursuant to Health and Safety Code section 38580(b)(3)~~.

(2) When a covered entity submitted a verified emissions data report for a compliance period but the Executive Officer determined, through an audit or other information, that the entity under-reported its emissions, each thousand metric tons of CO_2e for which a compliance instrument is required is a separate violation if the amount of underreported emissions exceeds 5% of the amount reported in the facility's verified report. If the amount of under reported emissions is found to be less than 5% of the amount reported in the verified emissions report, there is no penalty, unless the Executive Officer determines the facility committed the following:

(A) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(B) Made any false, fictitious or fraudulent statement or representation;

(C) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(D) Omits material facts from a submittal or record.

~~(d) (c) Each failure to measure, collect, record or preserve information required by this article needed for the calculation of emissions as required by this article or preserved constitutes a separate violation of this article~~.

(c) Each failure to measure, collect, record or preserve information required by this article needed for the calculation of emissions as required by this article, constitutes a separate violation, except to the extent that the missing data procedures specified in Section 95129 or the EPA Subpart W missing data procedures for oil and gas production facilities are applied, there is no penalty, unless. the Executive Officer determines that the facility:

(1) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(2) Made any false, fictitious or fraudulent statement or representation;

(3) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(4) Omits material facts from a submittal or record.

(d) Each thousand tons of excess emissions is a separate violation if the verifier discover the facility committed any of the following during the verification review process:

(1) Falsified, concealed, or covered up by any trick, scheme or device a material fact;

(2) Made any false, fictitious or fraudulent statement or representation;

(3) Made or uses any false writing or document knowing the same tocontain any false, fictitious or fraudulent statement or entry; or

(4) Omits material facts from a submittal or record.

~~(d)~~ *(e)* The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.

~~(e)~~ *(f)* The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.

~~(f)~~ *(g)* Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b), *and the degree of culpability for the violation.* [FF 11.24 – WSPA]

Response: See Responses to N-2, N-11, N-12, N-18, and N-26.

N-26. Objection to Per Ton Basis for Penalties

Comment: CMTA objects to penalties being imposed on a "per ton" basis given the huge amount of GHG emissions involved in the AB32 program. Even a modest mistake could result in a massive fine completely out of proportion to the nature of the "violation", especially if such mistakes are within the 5% verification accuracy level. Instead, the penalty should be based on a specific incident violation, and not on a per ton basis, similar to how other air pollution penalty programs are structured. At an absolute minimum, ARB should modify the "per ton" penalty to a more appropriate value such as a "10,000 ton" penalty metric, simply because of the huge number of GHG emissions associated with the AB32 program. [FF 29.02 – CMTA]

Response: As explained in its Response to B-11, ARB believes a per-ton violation is a necessary deterrent because under-reporting of emissions poses potential significant economic benefits on a per-ton basis to companies by reducing the amount of allowances they would have to buy under a cap-and-trade system. One metric ton of CO_2e is the basic unit for both reporting under the MRR and for compliance or trading under the cap-and-trade regulation. It is therefore an appropriate unit by which to count violations under both rules. Moreover, Health and Safety Code section 38580(b)(3) authorizes ARB to define penalties on a per-unit basis, proportional to the conduct, rather than defining violations purely in terms of days. Since the MRR and the cap-and-trade

regulation are premised on reporting and reducing each metric ton of CO_2e, ARB has determined that including a violation for each under-reported metric ton of CO_2e is necessary to achieve the deterrent effect. As such, ARB declines to include the modification suggested by the commenter of changing from one ton to "10,000 tons."

N-27. Per Ton Penalty is Too Severe
Comment: The AB 32 IG also believes a per ton penalty is too severe considering the fact that many facilities will be reporting hundreds of thousands if not millions of tons of GHG emissions, and therefore recommends the penalty structure be amended to move to a per 1000 ton penalty scheme. [FF 17.02 – ABIG]

Response: See Responses to B-10, B-11 and N-26.

N-28. Concerns About Basing Penalties on Per Ton of Emissions
Comment: CalChamber remains very concerned that ARB continues to base penalties on a "per ton" basis. It is inappropriate for CARB to base penalties on a per ton metric given the huge amount of GHG emissions involved in the GHG program. Assigning a "per ton" penalty for each GHG that is not reported can result in a penalty of tens if not hundreds of thousands of dollars to a facility, despite the fact that a facility's MRR report caries a positive or qualified positive verification determination. It is simply unfair to impose such excessive penalties and costly burdens upon facilities. For these reasons we recommend that the penalty metric be based on the specificity of the violation. [FF 53.03 – CCC]

Response: See Responses to B-10, B-11 and N-26.

N-29. Basing Violations on Tons is Excessive
Comment: The inclusion of the section indicating that each metric ton of CO_2e emitted is a separate violation appears excessive. Suggest modifying enforcement section to state:

a. Penalties may be assessed for any violation of this subarticle pursuant to Health and Safety Code section 38580. Each day during any portion of which a violation occurs is a separate offense.
b. Any violation of this subarticle may be enjoined pursuant to Health and Safety Code section 41513.
c. Each day or portion thereof that any report, plan, or document required by this article remains unsubmitted, is submitted late, or contains incomplete or inaccurate information, shall constitute a single, separate violation of this subarticle.

Inclusion of this verbiage is similar with other GHG regulations finalized by ARB and provides a level field of enforcement for current GHG regulations and those

under development (e.g., landfill, SF6, high GWP refrigerants regulations). [FF 06.02 – NRW]

Response: See Responses to B-10, B-11 and N-26.

N-30. Concern about Separate Per Ton Violation Enforcement Provisions
Comment: The recently proposed enforcement provisions that consider failure to report every ton of excess emissions and submittal of inaccurate information as separate violations would potentially result in unwarranted and excessive penalties, relative to other criteria pollutant penalties. GHG emissions levels are a thousand times higher than criteria pollutant levels. The mandatory Reporting Rule is complex, and the volume of data collected is enormous; the sheer size and complexity significantly increases the potential for unintended reporting errors. [FF C&T 141 – CCEEB]

Response: See Responses to B-10, B-11 and N-26.

N-31. Basing Penalties on Per Ton of Emissions is Unnecessarily Harsh
Comment: Defining each metric ton of CO_2e emitted but unreported as a separate violation is unnecessarily harsh and fails to promote consistency with similar reporting programs. The proposed regulations contain very strict enforcement powers. Section 95107(a) creates a separate violation for each day a required report is late or contains information that is incomplete or inaccurate, and Section 95107(c) makes each failure of many requirements in the MRR a separate violation. These two paragraphs already subject a reporting entity to substantial fines for errors in a single emissions data report. For example, if an operator of an Electricity Generating Unit (EGU) fails to accurately calculate emissions from fossil fuel combustion, as required by 40 CFR Part 98, then that single error is a separate violation for each day a timely report goes uncorrected. (See Proposed §§ 95112 and 95107a]) However, if the report also contains incorrect data related to fuel consumption, carbon content or heat value collected and reported under Section 95112, no matter how inadvertent, each additional error is a separate violation and is multiplied for each day it goes uncorrected. It doesn't require much imagination to see how a single erroneous emissions data report can quickly balloon into multiple violations, particularly if the errors are undiscovered and go uncorrected for any length of time.

The fines for daily violations for each reporting error can also escalate if the error involves more culpable conduct. The MRR would allow the following potential daily civil penalties for reporting violations: Up to $1,000 strict liability in any case; Up to $10,000 strict liability (unless proven that the violation was not negligent or intentional) for violating any regulation issued pursuant to Health and Safety Code sections 39000-42708; Up to $25,000 for a negligent reporting violation; Up to $40,000 for a knowing reporting violation; and Up to $75,000 for a willful and intentional reporting violation. (See Health & Safety Code §§ 42402, 42402.1, 42402.2, and 42402.3) Therefore, subparagraphs (a) and (c) of Section

95107, in combination with Section 42402 et seq. already enable the ARB to levy a broad range of fines for a broad range of erroneous conduct.

Some would argue that these "tools" in the toolbox are already excessive since daily penalties were originally intended to bring emitting sources back into compliance for public health reasons and thus are inappropriate to deter reporting behavior. While SMUD believes that this view has merit, we also recognize that daily penalties for late reporting are now the norm and have been upheld by the courts. Whatever our views on the appropriateness of daily penalties for reporting violations, we believe that the penalties listed above are more than enough to encourage honest and careful reporting such that the inclusion of a "per ton" penalty is simply excessive. Indeed, the addition of a per ton multiplier, as a practical matter, subjects reporting violations to much higher penalties than the 4:1 surrender obligation for a shortfall in compliance instruments.

In addition, AB 32 requires ARB, in developing its regulations, to "[r]eview existing and proposed international, federal, and state greenhouse gas emission reporting programs and make reasonable efforts to promote consistency among the programs established pursuant to this part and other programs…." (Health & Safety Code § 38530[c][2]) The addition of Section 95107(b)'s per ton multiplier is indeed inconsistent with other AB 32 reporting requirements, national GHG reporting requirements, and other air emission regulatory programs. For example, the federal mandatory GHG reporting regulation provides in pertinent part:

> Any violation of any requirement of this part shall be a violation of the Clean Air Act, including section 114 (42 U.S.C. 7414). A violation includes but is not limited to failure to report GHG emissions, failure to collect data needed to calculate GHG emissions, failure to continuously monitor and test as required, failure to retain records needed to verify the amount of GHG emissions, and failure to calculate GHG emissions following the methodologies specified in this part. Each day of a violation constitutes a separate violation. (40 C.F.R. § 98.8 [emphasis added])

Similarly, the federal Clean Air Act imposes penalties for emissions exceedances on a per day (not per ton) basis. The Clean Air Act authorizes the Administrator to issue an administrative penalty of up to $25,000 per day for violations of any requirement or prohibition of a state implementation plan, or of any other requirement or prohibition of certain subchapters (which include the National Emission Standards for Hazardous Air Pollutants program). (See 42 U.S.C. § 7413[d].) The per day penalty has stood the test of time at the federal level and has been more than adequate to provide a deterrent to violations of federal standards.

Similar to the EPA's definition of a reporting violation, ARB's other reporting regulations find violations on a per day (not per ton) basis. ARB's AB 32 administrative fee regulation provides that "[e]ach day or portion thereof that any report required by this subarticle remains unsubmitted, is submitted late, or contains incomplete or inaccurate information, shall constitute a single, separate violation of this subarticle." (See 17 C.C.R. § 95206[c]) "Report" means any information required to be submitted by section 95204. (*Id.*) Since this information must typically include "the same information that is required to be submitted under the Mandatory Reporting Regulation," reports also include emissions data. (See 17 C.C.R. § 95204[g]) Yet there is no per ton multiplier for inaccurate data.

ARB's reporting requirement related to the regulation for reducing sulfur hexafluoride, provides in pertinent part, "[e]ach day or portion thereof that any report…remains uncommitted, is submitted late, or contains incomplete or inaccurate information, shall constitute a single, separate violation…." (17 C.C.R. § 95344[d]) Similarly, regulations requiring annual reporting of sulfur hexafluoride emissions from gas insulated switchgears (17 C.C.R. § 95358[b]), and methane emissions from municipal solid waste landfills (17 C.C.R. § 95472[c]), include this language. None of these reporting requirements create a separate violation for each pound or other unit of measure of sulfur hexaflouroide emissions.

Various other regulations implementing climate change measures also create a separate violation for each day a required report contains inaccurate information. None of these other reporting requirements impose a per ton or per quantity multiplier. Section 95107(b) stands alone in this regard. ARB's regulations requiring the submittal of an energy efficiency and co-benefits assessment for large industrial facilities also provide that "[f]ailure to submit any report or to include in a report all information required by this article, or late submittal of the report, will constitute a separate violation of this article for each day that the report has not been submitted beyond the required submittal date…." (17 C.C.R. § 95611[b]) Again, no per quantity multiplier. ARB's Title 17 regulations include various other provisions that define violations for its different air programs. ARB's alternative control plan requirements for consumer products and aerosol coating products3 provide that "failure to report accurately is a single separate violation for each day after the applicable deadline until the requirement is satisfied." (17 C.C.R. § 94546[d]) Similarly, ARB's hairspray credit program, which addresses false reporting of information in applications to use hairspray emission reduction credits (HERCs), indicates that false reporting is "a single, separate violation…for each day" of the applicable period. (17 C.C.R. § 94573[c]) Again, there is no per unit or per quantity multiplier. Even ARB's airborne toxic control measure for marine auxiliary diesel engines similarly indicates that "a violation of the recordkeeping and reporting4 requirements in this section shall constitute a single, separate violation of this section for each day that the applicable recordkeeping or reporting requirement has not been met." (17 C.C.R. § 93118.3[h][3]) No per quantity multiplier here either.

As discussed above, AB 32 requires ARB to "make reasonable efforts to promote consistency" among the programs established under AB 32 and other international, federal, and state greenhouse gas emission reporting programs. By adding an unnecessary and duplicative violation for each metric ton of GHGs emitted but not reported, CARB has failed to satisfy this mandate. To make the MRR consistent with AB 32, and with CARB's numerous other violation provisions discussed above, subsection (b) of section 95107 should be stricken in its entirety. [FF 25.02 – SMUD]

Response: As an initial matter, ARB disagrees with the commenter's underlying premise that AB 32 mandates that ARB maintain identical enforcement provisions across its regulations established under AB 32 and other programs. Health and Safety Code section 38530(c)(2) does require ARB to monitor and "make reasonable efforts to promote consistency" with such programs, but nowhere does it mandate such consistency. Nevertheless, ARB has monitored other programs and believes it has made reasonable efforts to promote consistency where possible. The MRR is a greenhouse gas reporting program which serves as the underlying information for a cap-and-trade program, and is therefore dissimilar to all of the examples referenced by the commenter. As explained in Response to B-11, ARB believes that the enforcement provisions of the MRR must be sufficiently rigorous to deter any potential economic benefit under the cap-and-trade regulation by entities which under-report their emissions, and has designed the MRR provisions as such. Regarding the commenter's argument that because examples taken from other ARB and federal regulations do not include a per unit or per ton violation, the MRR should not either, see Response to B-11, which notes that defining a violation based on a per-unit value is consistent with other ARB regulations and is authorized by Health and Safety Code section 38580(b)(3). Therefore, ARB declines to strike out the per-ton provision (formerly section 95107(b); now section 95107(c)) from the MRR.

Regarding the commenter's concerns about layering between the enforcement provisions within section 95107, see Response to B-6. Regarding the commenter's concern that enforcement tools are excessive, we note that the circumstances of any particular case will be considered in determining a just penalty. See Response to B-10. Finally, ARB has modified former section 95107(a) (now section 95107(b)) to clarify that there is a single, separate violation for each day or portion thereof that any report required to be submitted remains unsubmitted, is submitted late, or contains information that is incomplete or inaccurate. The commenter raised the concern that as previously written, this provision could be interpreted as allowing for a separate violation for each error contained in the report. ARB believes it has addressed the commenter's concerns through the inclusion of the word "single," which clarifies that under section 95107(b), there is a single violation for a late, incomplete, or inaccurate

report, not a separate violation for each error within the report. See also Response to N-50.

N-32. Provision that Each Ton is Separate Violation is Unnecessary
Comment: The provision to state that each ton of CO_2e that is under-reported is its own violation is unnecessary considering that such under-reporting would result in not obtaining sufficient allowances and hence fall under the enforcement provisions of the Cap and Trade regulation. In addition, there is already a provision in Section 95107(a) which provides that there is a violation if the annual report were to be inaccurate, so the provision is unneeded. [FF 40.04 – UA]

Response: See Responses to B-11 and N-26.

N-33. Revise Penalties to Reflect Underreported Tons, Provide Tiered Structure
Comment: We strongly urge ARB to develop and incorporate into Section 95107 provisions providing a tiered penalty structure based on the degree of violation, including but not limited to, whether a reporting error was found to be intentional or negligent, whether the violation was an administrative error that resulted in no material change in the MRR report, and most importantly whether any reported errors resulted in an exceedance beyond the + 5% accuracy verification level. [FF 11.02 – WSPA]

Response: See Response to B-10, B-11, and N-18.

N-34. Set Penalty on a Per 1,000 Ton Basis, Provide Tiered Approach
Comment: WSPA recommends that ARB set a penalty on a per 1,000 ton basis and incorporate guidance on a tiered penalty approach based on intent and materiality. [FF 11.25 – WSPA]

Response: See Responses to B-10, B-11, and N-26.

N-35. Inappropriate to Base Penalties on Per Ton Basis
Comment: SEU recognizes the need for penalty provisions as a key method to ensure compliance. However, it is inappropriate for ARB to have a penalty structure based on a per ton basis. The penalties based on a per ton metric would be exponentially greater compared to other criteria pollutant programs. ARB should revise Section 95107 (b) accordingly. SEu has made similar comments on the cap-and-trade regulation regarding Section 96014, Violations. (b) Each 1000 metric tons of CO_2e emitted but not reported as required by this article is a separate violation. [FF 55.22 – SEU]

Response: See Responses to B-11 and N-26.

N-36. Per Ton Penalty is Excessive and Request Per 1,000 Tons
Comment: WSPA believes it is inappropriate for ARB to impose penalties on a per ton basis, simply because the AB32 GHG emission reporting program

requirements identify facility emissions that are exponentially greater than criteria pollutant emissions from the same facility. Therefore, a "per ton" criteria as a penalty provision is not only inappropriate, but could result in penalties in the tens or hundreds of millions of dollars for excess emissions that are only a small percentage of a facility's total GHG emissions. Recognizing the differences between the AB32 GHG program and traditional criteria pollutant program requirements, WSPA recommends a more appropriate penalty metric would be a "Per 1,000 Tons". [FF 11.22 – WSPA]

Response: See Responses to B-10, B-11, N-2, N-3, and N-26.

N-37. Per Ton Penalty is Too Severe

Comment: CIPA recognizes and appreciates some of the proposed revisions CARB made relative to the enforcement penalty provisions in Section 95107 and Section 95858. The changes do not recognize important aspects of the AB32 verification program however, including the cost implications if CARB continues to maintain a per ton penalty provision. CIPA believes a per ton penalty is too severe considering the fact many facilities will be reporting hundreds of thousands if not millions of tons of GHG emissions, and therefore recommends the penalty structure be amended to move to a per 1000 ton penalty scheme. [FF 42.05 – CIPA]

Response: See Responses to B-10, B-11 and N-26.

N-38. Improve Penalty Provisions Related to Per Ton Emissions

Comment: CLFP requests CARB to further clarify and improve the penalty enforcement provisions to make them more fair and balanced. Subsection (b) & (c) in Section 95107, as written, provides CARB the authority to assess penalties for any GHG ton or data measure or collection failure, as a separate penalty, despite the fact that such a failure is within the acceptable range of accuracy for verification purposes (plus or minus 5% accuracy level). It does not make sense that CARB should be able to assess penalties for "any" ton of GHG emissions that were found to not be reported when the amount of GHG tons are well within and below the level of accuracy required by the MRR and verification process. CLFP requests CARB revise Subparts (b) & (c) to reflect that the penalties would be imposed if, and only if, it was determined that the amount of emissions facility underreported exceeded the + 5% accuracy level and only for the amount above 5%. If CARB is concerned that reporters may intentionally under-report their GHG emissions, they should include specific language in the penalty section that would address that concern, and not have an open ended condition (Subsections (b) & (c)), that can be used to penalize those who are working hard to comply with all aspects of the AB32 reporting and verification program. [FF 45.04 – CLFP]

Response: Subsections 95107(b) and (c) referred to by the commenter are now shown as modified subsections 95107(c) and (d), respectively. For the reasons

stated in Responses to N-2, N-3, and N-11, ARB declines to make the modifications requested by the commenter. Furthermore, and as noted in Responses to B-1 and B-10, ARB must take into account all relevant circumstances prior to seeking any penalty amount, meaning that the nature of the violation, including a reporting entity's efforts to comply, would factor into ARB's penalty analysis.

N-39. Improve Penalty Provisions Related to Per Ton Emissions

Comment: Request ARB to further clarify and improve the penalty enforcement provisions to make them more fair and balanced. Subsection (b) & (c) in Section 95107, as written, provides ARB the authority to assess penalties for any GHG ton or data measure or collection failure, as a separate penalty, despite the fact that such a failure is within the acceptable range of accuracy for verification purposes (plus or minus 5% accuracy level). It does not make sense that ARB should be able to assess penalties for "any" ton of GHG emissions that were found to not be reported when the amount of GHG tons are well within and below the level of accuracy required by the MRR and verification process. CMTA requests ARB revise Subparts (b) & (c) to reflect that the penalties would be imposed if it was determined that the amount of emissions facility underreported exceeded the + 5% accuracy level and only for the amount above 5%. If ARB is concerned that reporters may intentionally under-report their GHG emissions, they should include specific language in the penalty section that would address that concern, and not have an open ended condition (Subsections (b) & (c)), that can be used to penalize those who are working in good faith to comply with all aspects of the AB32 reporting and verification program. CMTA recommends ARB revise Sections 95107 (b) & (c), to reflect that if the facility under reported emissions, but those emissions were below the 5% verification accuracy level, no penalty would apply, unless the Executive Officer determined that the facility engaged in falsifying, concealing or covering up information that resulted in a under reporting of emissions. Including these revisions will make Section 95107 consistent with ARB's Cap & Trade penalty provisions, specifically Section 96014 (c) (1-3), entitled "Violations" which describe it is a violation if it is determined the facility falsified, concealed or covered up by any trick, scheme or device, made any false, fictitious or fraudulent statements or made or used any false writing or document knowing it contained false, fictitious or fraudulent statements. [FF 29.01 – CMTA]

Response: See Responses to N-38 and N-11. Moreover, because any enforcement assessment would also factor in any discovered false information, and for the reasons contained in Response to N-2, ARB declines to make the change the commenter is asking for with respect to language from section 96014(c)(1)-(3) of the cap-and-trade regulation.

N-40. Object to Per Ton Basis for Penalties

Comment: CLFP objects to penalties being imposed on a "per ton" basis given the huge amount of GHG emissions involved in the AB32 program. Even a

modest mistake could result in a massive fine completely out of proportion to the nature of the "violation", especially if such mistakes are within the 5% verification accuracy level. Instead, the penalty should be based on a specific incident violation, and not on a per ton basis, similar to how other air pollution penalty programs are structured. At an absolute minimum, CARB should modify the "per ton" penalty to a more appropriate value such as a "10,000 ton" penalty metric, simply because of the huge number of GHG emissions associated with the AB32 program. [FF 45.05 – CLFP]

Response: See Responses to B-10, B-11, and N-26.

N-41. Concerns About Daily and Per Ton Penalties, Limiting ARB Discretion
Comment: The Proposed Amendments would allow CARB to elevate even an innocuous and inadvertent reporting violation with no demonstrable environmental consequences into an enforcement action that could result in potential civil penalties in literally the trillions of dollars, depending upon where a misplaced decimal point should fall. Errors are likely to occur during the implementation of a whole new regulatory program. Calpine is concerned that, by classifying each day that a report is inaccurate or late and each ton of emissions that is under-reported as a separate violation, the Proposed Amendments may constrain CARB's enforcement discretion to seek penalties proportional to the nature of the alleged violation and its resulting harm, even for relatively minor violations with no demonstrable harm. Accordingly, Calpine is proposing changes to assure that CARB retains the discretion provided by the relevant statutory provisions.

Under the Proposed Amendments to the MRR, each day or portion thereof in which any required report is late or contains incomplete or inaccurate information constitutes a separate violation. *See* Proposed Cal. Code Reg., tit. 17, § 95107(a). In addition, each ton of CO_2e emitted, but not reported, constitutes a separate violation. *See id.*, § 95107(b). Thus, under the Proposed Amendments, even an inadvertent data entry error could result in literally millions of individual violations of the Health and Safety Code. While Calpine would like to believe that CARB will not wield these penalty provisions in a heavy-handed fashion, the potential civil liability for even an inadvertent error in reporting could quickly escalate into the trillions of dollars, depending upon where a mistaken decimal place should happen to fall. Calpine believes that such draconian penalties would, in many cases, be completely inconsistent with the nature of the violation and would betray the principle of proportionality that should undergird a regulatory agency's enforcement of its regulations. As a consequence, CARB will have a powerful tool in settlement negotiations to insist upon penalties grossly disproportionate to the nature of the violation, with the threat of potential civil penalties that could be sought in court orders of magnitude greater. Adherence to the detailed provisions of the MRR will be a major undertaking for reporting entities and one that is unlikely to be free of error, particularly in the first years of the MRR's implementation. Calpine is concerned that, as drafted, the

Proposed Amendments could transform a seemingly innocuous and inadvertent human error into the subject of a major enforcement action, even though no impact on global climate change could likely be demonstrated as a result of the error.

As we begin to implement new regulatory programs to regulate carbon, even well-intentioned individuals are likely to make mistakes. Calpine is concerned that, by classifying each day that a report is inaccurate or late and each ton of emissions that is under-reported as a separate violation, the Proposed Amendments may constrain CARB's enforcement discretion to seek penalties proportional to the nature of the alleged violation and its resulting harm. Accordingly, Calpine proposes the following changes to assure that the Proposed Amendments do not constrain CARB's discretion to impose an appropriate penalty under the relevant statutory provisions:

(a) Each day or portion thereof that any report required by this article remains unsubmitted, is submitted late, or contains information that is incomplete or inaccurate ~~is~~may be deemed a separate violation and subject to penalties in accordance with the criteria set forth in Health and Safety Code section 42403(b). For purposes of this section "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article.

(b) Each metric ton of CO_2e emitted but not reported as required by this article ~~is~~may be deemed a separate violation and subject to penalties in accordance with the criteria set forth in Health and Safety Code section 42403(b).

[FF 30.04 – CALPINE]

Response: ARB appreciates the commenter's concerns regarding ARB's ability to retain enforcement discretion. However, ARB does not agree with the commenter that the enforcement provisions of section 95107 affect this ability. In fact, and as noted in Response to B-1, the penalty structure for the MRR derives directly from (and is dependent on) existing statutory provisions in the Health and Safety Code. Prior to seeking any penalty amount, ARB must consider all relevant circumstances, which would include considering the nature of the violation and the extent of harm caused by the violation. Since this consideration is statutorily mandated, and already accounted for, ARB disagrees with the commenter that the modified MRR will constrain it from seeking penalties proportionate to the nature of the violation. See also Response to B-10.

Regarding the specific language modifications referring to Health and Safety Code section 42403(b) suggested by the commenter, ARB notes that it has modified section 95107(a) (formerly section 95107(f)) to make clear that in seeking any penalty amount, ARB shall consider all relevant circumstances, including any pattern of violation, the size and complexity of the reporting entity's operations, and the other criteria in Health and Safety Code section 42403(b).

This section also makes clear, as it has done since the modifications were first proposed, that penalties may be assessed pursuant to Health and Safety Code section 38580, which in turn references the Health and Safety Code penalty provisions commencing with section 42400. As such, while ARB declines to make the language modifications suggested by the commenter, ARB believes that the commenter's concerns have been addressed with the modified language of section 95107(a). Finally, while penalty amounts may be assessed pursuant to statutory authority, and subject to considering all relevant circumstances, ARB believes that it is necessary to define in the MRR what constitutes a violation of the MRR, rather than including a vague descriptor such as "may be deemed" as requested by the commenter. As such, ARB declines to make the requested modification.

N-42. It Should Not Be a Penalty to Use Missing Data As Specified by Regulation
Comment: Paragraph 95107(c) should allow for use of missing data substitution procedures. Section 95107(c) (p. 88) as currently drafted would result in penalties being applied if monitoring equipment malfunctions, as there would be a failure to "measure" information as required by this Regulation, even if the missing data substitution procedures are applied so that there is no under-reporting of emissions. This is not appropriate. It should not be a violation for entities to use procedures that are set out in the Regulation. The missing data substitution procedures in § 95129 (p. 200) are punitive in themselves, as they are designed to result in an over-estimation of the unrecorded emissions, increasing liability under the cap-and-trade program. This provides a sufficient incentive for facility operators to maintain their monitoring equipment to minimize any failures. Additional penalties should not be applied under § 95107(c) for failing to measure information if the missing data substitution procedures are implemented. Furthermore, it is unclear how the number of violations would be calculated under this section for failures to measure or record information. If one piece of monitoring equipment that covers two units at a facility malfunctions, is this one "failure" or two? Section 95107(c) could be interpreted in a way that results in many separate violations with high total penalties. This should be clarified. Suggested changes to § 95107(c) are as set out below:

(c) ~~Each f~~Failure to measure, collect, record or preserve information required by this article for the calculation of emissions or that this article otherwise requires be measured, collected, recorded or preserved constitutes a ~~separate~~ violation of this article except to the extent the missing data substitution procedures in section 95129 are applied. [FF 49.07 – SCPPA]

Response: As explained in Response to B-8, ARB has clarified in section 95129 that the use of the missing data provisions are provided to allow reporting entities the ability to fill in any missing data gaps in the event they are unable (for whatever reason) to meet the other requirements of the regulation. However, and aside from an approved interim fuel analytic data collection procedure during equipment breakdowns pursuant to section 95129(h), the missing data provisions

are not intended to excuse any failure of reporting under the other requirements of the regulation. In the event that ARB decides to seek a penalty amount from an entity, it must consider all relevant circumstances specific to that entity and its actions, including the criteria in Health and Safety Code section 42403(b) (See Response to B-10). As such, ARB is not able to set forth a set number of violations that would be calculated absent the specific facts of a specific action.

N-43. Daily Violations Could Be Imposed for Using Missing Data Procedures
Comment: 95107(c) the phrase "except to the extent the missing data substitution procedures in section 95129 are applied" should be added (as shown below). Without this clarification, daily violations and penalties could be imposed for the use of missing data procedures when fuel flow metering equipment fails to measure or record data, even though use of missing data procedures is allowed under EPA Part 75 (Acid Rain), EPA Part 98 (GHG Reporting Rule), and ARB's MRR 95129.

(c) ~~Each f~~Failure to measure, collect, record or preserve information required by this article~~needed~~ for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved constitutes a separate violation of this article, except to the extent that missing data substitution procedures specified in 95129 are applied.
[FF 51.08 – LADWP]

Response: See Response to N-42.

N-44. Clearly Distinguish Between Daily and Administrative Violations
Comment: ARB staff state that they have modified the language in Section 95107 Enforcement to clarify the extent of the enforcement provisions, and that "violations based on each unreported metric ton of carbon dioxide equivalent and violations based on the failure to measure, collect, record, or preserve information required by the article are not also subject to a daily violation." Metropolitan understands that ARB has received many comments on the over-stringency of ARB's proposed enforcement provisions for greenhouse gases as compared to other air programs and the inequitable penalties for administrative type violations that are not actual emission violations. Metropolitan asks that ARB clearly make these distinctions relative to daily penalties and administrative type violations in the final enforcement language, so the provisions are not unduly burdensome to the regulated community. [FF 13.05 – MWDSC]

Response: Health and Safety Code section 38580(b)(2) states:

> "Any violation of any rule, regulation, order, emission limitation, emissions reduction measure, or other measure adopted by the state board pursuant to this division shall be deemed to result in an emission of an air contaminant for the purposes of the penalty provisions of Article 3

(commencing with Section 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with Section 43025) of Part 5 of, Division 26."

Given the above statutory language, ARB believes the distinction requested by the commenter regarding daily and administrative types of violations is outside the bounds of the statutory provision. However, as noted in Responses to B-1 and B-10, ARB must take into account all relevant circumstances prior to seeking any penalty amount, meaning that the nature of the violation would factor into ARB's penalty analysis. As such, ARB does not believe the requested modification is necessary or appropriate.

N-45. Modify Penalties If Error Below 5% Accuracy Requirement
Comment: CIPA requests that CARB revise Section 95107(b) to ensure that a penalty would not be imposed if the amount of emissions that were not reported were determined to be below the 5% accuracy verification requirement in the MRR, unless CARB determined the facility submitted false information. If CARB made such a determination, we recommend incorporating the same language CARB included in the C&T regulation, Section 96014 (c)(1-4) entitled "Violations", which states it is a violation if it is determined the facility falsified, concealed or covered up by "…any trick, scheme or device a material fact", including any false, fictitious or fraudulent statements or made or used any false writing or document knowing it contained false, fictitious or fraudulent statements. This reporting regime is new, comprehensive and complicated. Human error should not be met with overly punitive action, just as knowing behavior should not be excused. [FF 42.04 – CIPA]

Response: See Response to N-11 and N-12.

N-46. Provide Mechanism for Disputing ARB's Calculation of System Emission Factor
Comment: ARB Should Include Provisions in the Amended Regulation to Provide Entities with an Opportunity to Comment on ARB's Calculation of the System Emissions Factor. The Amended Regulation should require ARB to provide an opportunity for entities to comment on or provide corrections to the calculation of its system emissions factor in advance of the compliance deadline. The calculation of the system emissions factor is the single most important factor in calculating the annual compliance obligation. This calculation is complicated and potentially subject to error or ambiguity. As such, entities subject to this calculation by the ARB should have an opportunity to comment on or dispute this calculation or the basis for it. If there is an outstanding dispute between the ARB and the compliance entity regarding the calculation of the system emission factor, any compliance obligation that becomes due during the dispute should be tolled until the resolution of the dispute. [FF 39.04 – PC]

Response: It is unclear from the comment which system emission factor the commenter is referring to in the MRR. Section 95111(b) provides the equations that must be used for calculating system emission factors for multi-jurisdictional

retail providers and asset-controlling suppliers. These calculations are contingent upon the submittal by those sources of accurate, required information. ARB believes that the calculations are clear in their requirements and that a dispute mechanism would be unnecessary. Moreover, given the timeline required by the cap-and-trade regulation, including a dispute resolution mechanism in the MRR, whether it would toll compliance with the cap-and-trade regulation or not, would give rise to delays that could have broader market impacts. As such, ARB does not believe including a dispute resolution mechanism for these calculations is appropriate.

N-47. Underreporting Within 5% Tolerance Not Subject to Penalties
Comment: Comment on Section 95107: A new subsection should be added to clarify underreporting within the 5 percent tolerance is not subject to penalties unless it is the result of intentional falsification of emissions data or fraudulent activities. (x) If the amount of under reported emissions of a covered entity is found to be within 5 percent of the verified emissions data report for a compliance period, there is no penalty, unless the Executive Officer determines the covered entity falsified data or engaged in fraudulent activities. [FF 55.23 – SEU]

Response: See Response to N-11.

N-48. Suggested Clarification to Language for Failure to Measure
Comment: Section 95107(c) states that each failure to measure, collect, record, or preserve information required by this article of the calculation of emissions constitutes a separate violation of this article. We believe it would more accurately reflect the intention of this section if it were to be revised to state "each type of failure to measure, collect, record or preserve..." would constitute a separate violation. [FF 40.05 – UA]

Response: Former section 95107(c) referenced by the commenter has been modified as section 95107(d). While it is unclear from the comment what the word “type” is referring to, ARB has modified section 95107(d) to indicate that “each failure” relates to measuring, collecting, recording, or preserving information “in the manner” required by the MRR (i.e. following the methodologies required by the regulation), and believes this addresses the commenter’s concern. See also Response to B-8.

N-49. Regulation Exposes Facilities to Daily Penalties for Late Reports
Comment: Section 95107(a) exposes facilities to daily violations for every day they are late submitting a verification statement. As happened last year, what if the verifier is late beyond any control of the facility being verified? CCEEB also suggests dropping "verification statement" from this section. [FF47.05 – CCEEB]

Response: Section 95103(f) of the MRR states that “each reporting entity must ensure that…verification statements are submitted by the applicable deadline.”

This provision was included in the regulation to ensure that reporting entities contract with their verification bodies with sufficient time to allow the completion of the verification process. Removing the phrase "verification statement" from the enforcement provisions would remove this assurance. In addition, the MRR applies not only to reporting entities, but also to verification bodies. Verification bodies are also required to submit their verification statements in an accurate, complete, and timely manner. Therefore, ARB declines the commenter's suggestion of removing the phrase "verification statement" from the enforcement provisions. However, ARB does agree that the commenter raises a valid concern for instances where a verification statement is submitted due to the fault of a verification body, rather than the reporting entity. As noted in Response to B-10, ARB must take into account all relevant circumstances when it pursues an enforcement action (whether against a reporting entity or against a verification body). This would include information supplied by the reporting entity regarding the cause of any late-submitted verification statement.

N-50. Should Not Provide Daily Violations for Inaccurate Reports
Comment: Section 95107(a) should not provide daily violations for inaccurate reports. Section 95107(a) (p. 88) provides for daily violations for reports with incomplete or inaccurate information. However, page 6 of the ARB's notice and summary of the Proposed Changes ("ARB summary") states that the ARB's modifications to § 95107 clarify that "violations based on each unreported metric ton ... and violations based on the failure to measure, collect, record or preserve information ... are not also subject to a daily violation." The ARB summary appears to recognize – correctly – that the total financial penalties that would result from having per-day, per-ton penalties under these provisions are excessive and unwarranted. However, the Regulation is inconsistent with the ARB summary. Unreported tons of emissions would be subject to daily violations under § 95107(a) as the relevant report would necessarily be "incomplete or inaccurate." To properly reflect the statement in the ARB summary, § 95107(a) should be amended to delete the reference to incomplete or inaccurate information. Section 95107(a) also provides for a violation if a report is submitted late or if it remains unsubmitted. If a report is unsubmitted by the due date, it is submitted late. There is no need to include both expressions. Doing so could lead to confusion if covered entities or the ARB later try to determine whether there is a practical distinction between the two expressions. Section 95107(a) should be revised as follows, to reflect the ARB summary and remove redundant wording.

(a) Each day or portion thereof that any report required by this article remains unsubmitted ~~or, is submitted late~~after the due date~~, or contains information that is incomplete or inaccurate~~ is a separate violation. For purposes of this section, "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article.
[FF 49.05 – SCPPA]

Response: ARB disagrees with the commenter's interpretation of the provisions in former section 95107(a) (now modified section 95107(b)). Contrary to the commenter's interpretation, a per-ton violation under section 95107(c) is not also subject to a per-day violation under modified section 95107(b). Section 95107(b) describes a daily violation for each report that is unsubmitted, is submitted late, or contains information that is incomplete or inaccurate. ARB has further modified this section to clarify that each day any of these actions occurs is a single, separate violation. As such, an inaccurate report, if it were based on an inaccuracy due to under-reported tons, would not result in a daily violation for each under-reported ton; instead, it would result in a single violation for each day the report (as a whole) remained inaccurate. Each under-reported ton would be dealt with separately pursuant to section 95107(c). In addition, ARB declines to make the requested change from "unsubmitted or is submitted late" to "unsubmitted after the due date" because it believes an incentive must remain to submit a report not only on time (i.e. not submitted late), but also to submit it at all (i.e. "remains unsubmitted"). ARB does not agree that this distinction would lead to confusion. Finally, the commenter has suggested removing the phrase "or contains information that is incomplete or inaccurate." ARB declines to remove that phrase for the reasons in Response to B-18, including the necessity of maintaining an incentive for reporting entities to report accurately and to include all required information in the reports.

N-51. Align Mandatory Reporting Enforcement with Cap-and-Trade Provisions
Comment: CCEEB suggests aligning section 95107(b)-(c) with section 96014(c) of the cap-and-trade regulation.

(1) Falsified, concealed, or covered up by any trick, scheme or device a material fact;
(2) Made any false, fictitious or fraudulent statement or representation;
(3) Made or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

Also clarify that these paragraphs do not apply when the operator obtains a positive or qualified positive verification statement. [FF 47.07 – CCEEB]

Response: See Responses to N-1, N-2 and N-11.

§95109 Standardized Methods

N-52. BAMM
Comment: "Best Available Monitoring Methods. We request that ARB adopt the sensible approach US EPA has adopted under its best available monitoring methods regulations. Clearly there are safety and practicability issues which are going to arise in this very young program. ARB's willingness to adopt additional language to clarify ARB's willingness to explore alternatives under Section 95109

and to include such language in other monitoring sections is a sound approach to safety and evolving technology. EPA has made available the optional use of best available monitoring methods for unique and extreme circumstances which include but are not limited to safety concerns, technically infeasible areas, and areas that are counter to other local, State or Federal Regulations for areas where it is not reasonably feasible to acquire, install, or operate a required piece of monitoring equipment within a facility or to procure measurement services. Recommend proposed change to Section 95109. Standardized Methods
(b) Alternative test methods that are demonstrated to the satisfaction of the Executive Officer to be a reasonable substitution ~~equally or more accurate than the~~ methods in §95109(a), §95153, §95154 may be used upon written approval by the Executive Officer. [FF 55.15 – SEU]

Response: The suggested modification cannot be included because the term "reasonable substitution" is subjective, and could not be effectively implemented as part of the regulation. Reporters and ARB staff could have divergent views of what would constitute a "reasonable substitution." For sections 95153 and 95154, providing the option for "equally or more accurate" methods is undesirable because of the desire to maintain consistency with the U.S. EPA reporting regulation.

O. Subarticle 2. Cement Production – §95110

§95110 Cement Production

O-1. Modification for Product Data
Comment: Add to 95110(c)(3) a reference to "as required by 98.83(d)", as shown in 95110(c)(2), after "raw material consumption or monthly clinker production", given that these section will only apply where this data is required under federal standards. [FF 12.02 – CSCME]

Response: The suggestion provides additional clarity and specificity, and the regulation was modified accordingly.

O-2. Modification to Cement Product Data
Comment: Replace "Annual quantity of limestone and gypsum consumed for blending (short tons)" with "Annual quantity of limestone, gypsum (including both natural and synthetic gypsum), and other clinker substitutes consumed for blending (short tons)". [FF 12.04 – CSCME]

Response: The regulation was modified to reflect the revised text, which is more descriptive than the previously proposed language.

O-3. Product Data Reporting and Verification

Comment: Add the following sentence to 95110(d): "For all items listed below, the measurements will be based on the same procedures as are used for accounting purposes (which are audited per Financial Accounting Standards Board [FASB] guidelines), and, where these procedures are used, these items will be exempt from 95103(k) requirements. Missing data procedures for the items listed below will be best available estimates based on information used for accounting purposes. Verification of data for the items below will consist of checking that the data conforms to procedures used of accounting purposes." This change is based on guidance provided under the current mandatory reporting rule (FAQ#60). Include in future guidance documents a statement that truck and rail scale procedures inherent in approvals obtained from the California department of Weights and Measures, meet all accuracy requirements under 95103(k), where applicable. [FF 12.03 – CSCME]

Response: After reviewing the comment, ARB determined that the proposed change would provide excessive flexibility which is not consistent with program needs. As product data will be associated with potential monetary benefits, it is important that it meets high standards of accuracy. Staff will work with stakeholders to assist them in meeting the stated standards, and to clarify that revenue meters and measurements used for commercial transactions meet the required accuracy specifications.

P. Subarticle 2. Electric Power Entities – §95111

§95111. Electric Power Entities

P-1. Typographical Errors

Comment: PG&E has noted the following minor typographical errors that should be corrected in the final version of the regulation: In section 95111(a), subsection (7) was skipped. In section 95153(h), the reference to 40 CFR § 98.233(j) should be corrected to refer to §98.233(i). [FF 19.21 – PGE]

Response: ARB has corrected the numbering in section 95111(a) and has also corrected the reference to §98.233(i) in section 95153(h).

P-2. Typographical Errors

Comment: The MRR's Formula for Calculating Covered Emissions at Section 95511(b)(5) Appears to Contain a Citation Error. In the proposed new Section 95111(b)(5) of the MRR, "calculation of covered emissions for compliance with cap-and-trade regulation," ARB sets forth a formula for the calculation of covered emissions from imported electricity subject to a compliance obligation under "Section 95852(c) of the cap-and-trade regulation." Section 95852(c), however, covers suppliers of natural gas, which do not import electricity. The correct citation appears to be Section 95852(b) of the cap-and-trade rule, which covers first deliverers of electricity. [FF 46.17—PX]

Response: The reference was corrected to section 95852(b)(1)(B).

P-3. Use of North American Electric Reliability Corporation (NERC) Electronic Tagging System (e-Tags) for Determination of Regulated Entity and Quantity of Imports, Exports, and Electricity Wheeled through California

Comment: The Utilities strongly disagree with CARB's proposal to require electric power entities to query e-Tags for assessing the quantity of imported electricity. Reporting emissions based on e-Tag data is problematic for a number of reasons. E-Tag data is highly error prone and cannot be changed after-the-fact, except in rare cases by a Balancing Authority. The Utilities worked tirelessly with CARB staff to develop a method for properly reporting electricity transactions from schedules and contracts; in fact, many of the examples included in the guidance documents were developed by the Utilities. [FF 05.06—REU]

CARB Should Abandon the Proposed Use of e-Tags as a Proxy for Assigning Title to Import Transactions. A NERC e-Tag is a reliability device designed to track transfers of electric energy between Balancing Authority Areas. The e-Tag does not establish a chain of title—chain of title is established by the contractual relationship between the Buyer and the Seller. E-Tags were designed to establish the chain of responsibility for scheduling power from one BAA to another. In several locations in the MRR and in the cap-and-trade regulations, the e-Tag is identified as the element that will determine title to the power imported, and thus assigns the responsibility for any GHG liability that may accrue from that importation. This is an incorrect application of the e-Tag. Title is a matter of contract law, not a function of a reliability tool designed to track power transactions between BAAs. Moreover, CARB's definition of "PSE" is "the functional entity that purchases or sells, and takes title to, energy, capacity and reliability-related services." These are distinct product markets, and an entity can contract for, and take title to, one or more of these products without taking title to all three. It is important to recognize that both the CPUC and the CEC rely upon e-Tags to audit RPS transactions after the fact, and to verify that WREGIS certificates are associated with imports by entities subject to RPS requirements over the appropriate time interval. This is a far different use of an e-Tag than its proposed use to determine title to power, and the presumption of responsibility for GHG liability. [FF 48.02—NS]

Electricity Exporter and Electricity Importer: The definitions of "Electricity Exporter" and "Electricity Importer" currently presume that the purchasing-selling entity listed on the physical path of a NERC e-Tag owns title to the power, which may not always be the case. The NERC e-Tag was not created with the intention of identifying or verifying the holder of title to electricity in order to correctly identify the importer/ exporter of power for GHG reporting purposes. Additionally, per section 22.13 of the CAISO tariff, "the CAISO will not act as principal but as agent for and on behalf of the relevant Scheduling Coordinators". CAISO may not be the entity that takes actual title to power sold at points of receipt outside the

state of California and is delivered to points inside the state of California, but the CAISO does act as the agent for the entity that may be the actual holder of title. WPTF suggests modifications to both definitions provided in our comment letter to avoid the reference to title. [FF 33.05—WPTF]

Multiple parties have raised the issue of who is the First Jurisdictional Deliverer in situations where parties bid into the CAISO markets at point outside of California, such as Palo Verde. We do not object to treating such bidders as First Jurisdictional Deliverers, and to date, we have reported our own transactions of this type as jurisdictional deliveries. However, we do have concerns that parties who do not wish to take this view may have strong legal grounds on which to object. We want to ensure that whatever solution is arrived at results in a level playing field. It is our understanding that, to date, different market participants have taken different views on the reporting obligations for this type of transaction. We want to ensure that all market participants report all similar transactions the same way. Second, because of the potential for confusion, we strongly urge ARB to address this issue explicitly in the written regulations, so that the "correct" interpretation for reporting and compliance purposes is clear and unambiguous. [FF 14.08—MSCG]

Electricity Importers (118). The last sentence of the definition reads, "When the PSEs are not subject to the regulatory authority of ARB, the electricity importer is the immediate downstream purchaser or recipient that is subject to the regulatory authority of ARB." It is unclear whether this leaves PG&E responsible when electricity is imported into California by a non-jurisdictional entity and then purchased by PG&E inside California. This type of scenario may occur when PG&E purchases energy at a CAISO intertie that is physically located inside California and then imports into the CAISO grid. This may also occur when a PSE that is not subject to the regulatory authority of ARB bids energy into the CAISO market and receives a market award at a CAISO intertie inside or outside the state of California. Since the CAISO would be the immediate downstream recipient of the energy in this scenario, the CAISO would presumably be required to report the emission obligation for the import. In light of these concerns, PG&E urges ARB and the CAISO to review the regulation and the CAISO's tariff to ensure that the proposed regulatory approach is accurate and can be implemented successfully. [FF 19.07—PGE]

ARB should revise the definition of "Electricity Importer" for the reasons discussed in SCE's comments on ARB's proposed 15-day modifications to the cap-and-trade regulation. [FF 37.07—SCE]

Response: The 2007 MRR relies on a variety of documentation to verify electricity transactions reports, including NERC e-Tags, settlements data, and contracts. In drafting the modified MRR, ARB concluded that the existing NERC e-Tag system used to support reliability standards for the North American bulk power system provides consistent and reliable source data and independent

documentation of electricity delivered across balancing authority areas. NERC is the electric reliability organization (ERO) certified by the Federal Energy Regulatory Commission to establish and enforce reliability standards for the bulk-power system. NERC develops and enforces reliability standards; assesses adequacy annually via a 10-year forecast, and summer and winter forecasts; monitors the bulk power system; and educates, trains and certifies industry personnel.

When electricity is delivered across balancing authority areas (BAAs), NERC e-Tags are created to request, approve, and document the interchange transaction from source (generation) to sink (load), designating the market path and physical path from first point of receipt (POR) to final point of delivery (POD). Therefore, for electricity that crosses BAAs, imports, exports, and wheels are defined pursuant to subsection 95102(a) with respect to the location of the first POR the final POD as documented on NERC e-Tags. This convention, based on *NERC Reliability Standards* and supporting business practices, provides for rigorous and consistent accounting of emissions from electricity.

Purchasing-selling entities are designated on NERC e-Tags for each segment of the physical transmission path, which provides the means for reporting entities to clearly identify the quantities of electricity they import, export, and wheel across the California border. Subsection 95105(d) provides clear direction to use NERC e-Tags to document these transactions, as it is necessary for consistent reporting and verification. Market participants bidding into the CAISO markets are required to document electricity deliveries via NERC e-Tags, pursuant to CAISO Tariff section 4.5. Determining which transactions are specified or unspecified relies on written power contracts (and supporting records), settlements data, and invoices.

Regarding the commenters' concerns over the word "title," ARB has modified the definitions of "electricity importer," "electricity exporter," "purchasing-selling entity," and "marketer" to clarify that delivery, and not title, is the critical determinant of responsibility recognized by ARB. ARB must rely on a clearly identifiable and verifiable entity that delivers electricity into California. Which party holds title to electricity may become a matter of dispute between counterparties and does not provide the certainty needed in a mandatory GHG reporting program, which serves as the underlying basis of the cap-and-trade program.

When marketers submit energy bids to the California Independent System operator (CAISO) and the bids are accepted by CAISO, the market participants are required to submit NERC e-Tags to document their delivery to a registered CAISO load point. While the price of electricity may be determined at an out-of-state trading hub or locational marginal price node, financial transactions with CAISO require physical delivery (an interchange transaction) into California. CAISO market participants that deliver energy across balancing authority areas are required to register with CAISO as scheduling coordinators and also register

their load delivery points (first/final points of delivery) inside the state of California. These requirements are specified in the CAISO Tariff section 4.5, Operating Procedures, Scheduling Coordinator Agreement, and other business practices available on CAISO's website. The proposed amendment to the MRR is consistent with the current regulation in this regard, and is consistent with the first deliver approach set forth in the Staff Report. ARB believes it has designed the reporting requirements to ensure accurate reporting of imported electricity delivered into the state of California and that the modifications described in this response address the commenters' concerns.

The last sentence was removed from the definition of "electricity importer" as suggested by PG&E. See also Response to D-4 regarding electricity importers, trading hubs, and bids into the CAISO markets.

P-4. Electricity Delivered to Serve Load

Comment: Exported and Imported Electricity defined in section 95102(a) both refer to "energy being delivered to serve load." When PG&E exports power to another party, or when PG&E imports power onto the CAISO grid, it is not known where the power is being delivered. Presumably, the energy would eventually serve load, but since the ultimate destination of the electricity is not always known at the time of import or export, PG&E recommends removing the term "to serve load" in both of these definitions. [FF 19.04—PGE]

Response: ARB has retained the phrase "to serve load" because energy is delivered to ultimately serve load. A PSE on an e-Tag has access to the full information on that e-Tag, including first point of receipt (POR) and final point of delivery (POD). Pursuant to the definition of imported electricity, the first POR is located outside the state of California and the final POD is located inside the state of California, which documents that the electricity served load in California. Pursuant to the definition of exported electricity, the first POR is located inside the state of California and the final POD is located outside the state of California, which documents that the electricity served load outside California.

P-5. Electricity Exports are Included Pursuant to Health and Safety Code Section 38505(m)

Comment: The quantification of electricity imports overstates California consumption. WPTF has also previously raised a concern that the original approach to quantifying imports would significantly overstate electricity consumption in the state, thereby arbitrarily and unnecessarily raising allowance prices (causing overall electricity prices to increase), and making the cap and trade regulation more vulnerable to legal challenges from electricity importers. The PRA has partially addressed this concern by allowing a netting of imports against "qualified" exports within the same hour. Even with this change, we remain concerned that the quantity of unaccounted exports could still be significant. We urge CARB to work with the California Independent System Operator ("CAISO") and other California balancing area authorities to quantify

residual exports not netted as ”qualified exports” and, if this quantity is significant, to develop a mechanism to account for such exports in subsequent compliance periods. [FF 33.03—WPTF]

Response: Statewide GHG emissions include both emissions from electricity generation facilities located in California and emissions from electricity that is imported and consumed. The direction given in AB 32 to account for all electricity provides equal incentive to reduce the carbon intensity of electricity generated in California whether it is provided for export or for consumption in-state. Pursuant to Health and Safety Code section 38505(m), "Statewide greenhouse gas emissions" means the total annual emissions of greenhouse gases in the state, including all emissions of greenhouse gases from the generation of electricity delivered to and consumed in California, accounting for transmission and distribution line losses, whether the electricity is generated in state or imported.” See also Response to D-1 regarding statewide GHG emissions, energy exchanges, and qualified exports. ARB appreciates the commenter’s concerns, and although the specific request is beyond the scope of the modifications being commented on, ARB will, consistent with existing practice, continue to work with stakeholders, including the CAISO, to ensure successful program implementation.

P-6. Direct Delivery of Electricity and Verification of Specified and Unspecified Imports
Comment: The definition of direct delivery currently provides that as one condition for specification of imports, “the electricity is scheduled for delivery into a California balancing authority with replacement electricity from another source.“ WPTF generally agrees with this requirement, but believes it should be further elaborated to facilitate verification that the specified source provided the power. Specifically, the scheduled delivery should be document with a NERC e-Tag and the specified facility indicated on that tag. [FF 33.06—WPTF]

Powerex suggests revisions to subsection (C) of the MRR’s definition of direct delivery of electricity to specify the precise data needed as evidence of direct delivery. Powerex recommends that the definition specify, first, that the “source” associated with the facility is the one identified as the “Source Point” on the NERC e-Tag. Second, that there must be a continuous transmission link from interconnection of the facility in the balancing authority in which the facility is located to load in the California balancing authority. [FF 46.16—PX]

To Ensure the Efficient Movement of Electricity into California, the MRR and cap-and-trade rules Should Recognize Both Written and Non-Written Contracts. In many cases, the proposed modifications to the MRR and the cap-and-trade rule define relationships in the industry of imported electricity according to the terms of a “written contract,” see, e.g., MRR § 95102(a)(354), cap-and-trade rule § 98502(a)(258), and MRR § 95102(a)(295) (definition of “power contract”). This is simply not consistent with the realities of the industry — which is fast-paced and highly dynamic — and thus would impose an inefficient and burdensome contract

structure. For example, it is standard practice within the Western Systems Power Pool (“WSPP”) that all transactions with a delivery term of less than one week are verbally confirmed and do not require a written contract. Written contracts for such short-term transactions would be highly inefficient and costly to electricity purchasers. Accordingly, Powerex requests that ARB replace the terms “written contract” and “power contract” with the term “contract” throughout the MRR and cap-and-trade rules, and that ARB define the term to include both written and verbal agreements. If it is ARB’s intent to disallow the use of non-written contracts under either the MRR or the cap-and-trade rule, Powerex requests that ARB clearly define the term “contract” so that it is clear to regulated entities how they must structure agreements to meet the rules’ requirements. For example, Powerex suggests that ARB revise the MRR to allow regulated entities to enter into verbal contracts that are backed by written enabling agreements not specific to the particular transaction, subject to the verbal contract. [FF 46.10—PX]

For the definition of "Specified Source" change the word “contract” to “documentation”, so that what is required is “written documentation” of a purchase from the specified resource claimed. Alternatively, if “contract” were retained, it would be very useful to provide more detail on what ARB would accept as demonstrating the existence of such a contract. [FF 14.02—MSCG]

The distinction between GPEs and entities holding written contracts should be clarified. Throughout the MRR, ARB makes reference both to GPEs (generation providing entities) and to entities holding written contracts. For example, in Section 95111(g)(4)(A), ARB discusses electricity imported “based on a written power contract or status as a GPE.” While GPE is defined in Section 95102(a)(179), ARB does not explain how that term compares with entities that own electricity based on a written power contract. Powerex requests that ARB clarify any differences between the two types of entities as they are referenced in the MRR. If no difference is intended, Powerex proposes that the MRR be modified to avoid the implication that the two types of entities are different. [FF 46.12—PX]

The proposed definition of “Unspecified Source of Electricity” states that the resource “’cannot’ be matched to a specific facility”. MSCG does not believe that this is the best word to use here and recommends, instead, the words “is not”. Our reasons are 1) ARB regulations require a “specified” resource to be registered with ARB and have an emissions rate on file, as well as a written contract. Otherwise, the resource cannot be treated as “specified”. Therefore, there exists the possibility that electricity will exist that can indeed be matched to a specific facility, but nonetheless cannot be treated as “specified” due to not meeting other ARB requirements. [FF 14.04—MSCG]

The proposed regulation uses the term ‘written contract’ in a few places, but it is not defined in section 95102 (or anywhere else). PG&E’s bilateral trading utilizes the Western Systems Power Pool Agreement (WSPP) for transactions. Under

WSPP, transactions that are conducted electronically or over the phone are also considered to be written contracts. PG&E's understanding of "written contract" would include contracts executed with documentary and electronic writings. PG&E's preference is for the definition of written contract to include any type of communication means, including but not limited to voice recorded, electronically executed and written communication. In addition, the definition for written contract should include any type of contract duration. [FF 19.01—PGE]

Specified and Unspecified Sources of Electricity: PG&E requests that the definitions set forth in section 95102(a) clarify that the compliance obligation is based on the source of electricity that is specified at the time the transaction is executed, so PG&E will use the emission factor of the source that was agreed to at the time the contract was executed. For example, if PG&E purchases unspecified physical power in the market, it should be assessed the unspecified emissions factor since that was priced in during the transaction, regardless of what resource shows up on the resulting e-Tag. [FF 19.05—PGE]

The definition of "power contract" should clarify that it applies to short-term contracts as well as longer-term contracts. Enabling agreements should be mentioned explicitly to assure there is no confusion that short-term agreements under a master agreement are included. For example, Western System Power Pool trades should be allowed to be specified resources or supplies. "Power contract" means a written document arranging for the procurement of electricity. Power contracts may be, but are not limited to, power purchase agreements, enabling agreements, and tariff provisions. [FF 55.20-SEU]

Response: ARB understands that an individual facility or unit may not always be indicated as a source point on a NERC e-Tag when the transaction is specified due to registration practices for first points of receipt. And, the NERC e-Tag may document that a unit-contingent delivery ultimately fulfilled a power purchase agreement that did not require electricity from a specified source.

Instead of requiring additional information to be included on a NERC e-Tag to meet ARB's GHG reporting needs, ARB concluded that verification of a valid claim to electricity from a specified source requires (1) evidence of direct delivery defined pursuant to section 95102(a) and (2) the reporting entity meet the definition of a generation providing entity (GPE) pursuant to section 95102(a) or have a written power contract, also defined pursuant to section 95102(a). A valid claim may be corroborated during verification with additional information such as the location of the first POR relative to the specified facility, settlements data, invoices, matching e-Tags with metered generation when available, and other records allowed pursuant to the power contract such as email and voice recordings.

Regarding the comment seeking modifications to the definition of "direct delivery of electricity" [FF 46.16 – PX], ARB has modified the definition to incorporate the

provision suggested: “The electricity is scheduled for delivery from the specified source into a California balancing authority via a continuous transmission path from interconnection of the facility in the balancing authority in which the facility is located to a final point of delivery located in the state of California…”

Regarding the comment seeking modifications to the definition of “unspecified electricity” [FF 14.04 – MSCG], ARB has modified the definition to assure unit-contingent deliveries that are not initially required in the terms of the transaction are not required to be specified to ARB: “Unspecified source of electricity” or “unspecified source” means electricity procured and delivered without limitation at the time of transaction to a specific facility’s or unit’s generation. Unspecified sources contribute to the bulk system power pool and typically are dispatchable, marginal resources that do not serve baseload.”

The definition of “written power contract” was clarified by including the italicized text suggested in comments: “Power contract” or “written power contract,” as used for the purposes of documenting *specified versus unspecified sources* of imported and exported electricity, means a written document, *including associated verbal or electronic records if included as part of the written power contract*, arranging for the procurement of electricity. Power contracts may be, but are not limited to, power purchase agreements, *enabling agreements*, and tariff provisions, *without regard to duration*.” For consistency, references in section 95111 to “written contract” were edited to read “written power contract,” but ARB also believes that references to “written contract” are sufficiently clear.

Finally, ARB does not believe it is necessary to make a distinction between GPE and an entity with a written power contract, as an entity may fit one or both descriptions under different circumstances. Section 95111(a)(4) requires an electricity importer fitting either or both descriptions to report specified sources when the electricity is directly delivered to California. An electricity importer fitting either or both descriptions may also classify specified electricity in the current data year as consistent with specified electricity previously consumed in California, pursuant to section 95111(g)(4)(A). A reporting entity that meets the definition of GPE for its specified sources must provide additional information pursuant to section 95111(g)(1) that may not be available to an entity with only a written power contract.

P-7. Definition of Direct Delivery of Electricity and Ensuring Consistency between the MRR and the California Renewable Energy Act

Comment: Powerex supports the structure of ARB’s proposed mandatory reporting provisions governing the direct delivery of electricity, variable renewable resources, and replacement electricity. The provisions should allow ARB to ensure consistency between the MRR, the cap-and-trade rule, and the renewable portfolio standard of the California Renewable Energy Resources Act (“SB X 1-2”).3 The MRR requirements for direct delivery of electricity already tracks Section 399.16(b)(1) of SB X 1-2. However, there are several provisions of

the MRR and the Cap-and- Trade Rule that raise ambiguity or use different terms to define similar concepts. Where possible, Powerex recommends that ARB smooth the differences between the Mandatory Reporting and cap-and-trade rules and SB X 1-2. ARB can reconcile these differences via the Mandatory Reporting and cap-and-trade rules based on the text of SB X 1-2, and need not wait for the California Public Utilities Commission to complete its current R.11-05-005, implementing SB X 1-2.

For example, there is some ambiguity as to how subsection (C) of the MRR's definition of "Direct Delivery of Electricity" relates to SB X 1-2. See MRR § 95102(a)(105)(C). The MRR defines the term to include electricity "scheduled for delivery from the specified source into a California balancing authority without replacement electricity from another source." Certain activities set forth under SB X 1-2 may, however, inadvertently qualify as replacement electricity under this provision of the MRR. To avoid an inadvertent conflict between the MRR and SB X 1-2, Powerex recommends that ARB clarify that "[t]he use of another source to provide real-time ancillary services required to maintain an hourly or subhourly import schedule into a California balancing authority," as set forth in Section 399.16(b)(1)(A) of SB X 1-2, is not considered replacement electricity. [FF 46.14a—PX]

Response: The phrase "without replacement electricity from another source" was deleted from the definition of "direct delivery of electricity." ARB believes this should address the commenter's concerns. In addition, ARB notes that the final amendment is consistent with the California Renewable Energy Resources Act (SB X 1-2), without presupposing future decisions by the California Energy Commission and the California Public Utilities Commission, and within the limits of rigorous and consistent GHG emissions accounting.

P-8. Substitute Electricity

Comment: It appears that the term "ancillary services," as defined in Section 399.16(b)(1)(A) of SB X 1-2, is equivalent to the term "substitute electricity" under the MRR (§ 95102(a)). If ARB indeed intended "substitute electricity" to have an identical meaning to "ancillary services," then the two terms in the MRR definition of "substitute electricity" should be explicitly linked. Powerex recommends that ARB amend the definition as provided. [FF 46.14b—PX]

Section 95111(g)(5) of the MRR, governing substitute electricity, should be amended to conform with the revised definition for "substitute power" or "substitute electricity" as provided in the full written comments. [FF 46.15—PX]

It is not clear how this definition differs from replacement electricity. It seems that replacement electricity is associated with renewable resources, while substitute electricity is associated with non-renewable specified resources. At a minimum, ARB should consider clarifying the two definitions, although substitute electricity isn't widely used in the MRR or CNT. [FF 19.09—PGE]

Response: ARB retained the definition of substitute electricity as originally proposed pursuant to section 95102(a) and removed the second sentence in subsection 95111(g)(5) for clarity. This term provides for separate reporting of imported electricity delivered under a plant-specific power contract that was not produced by the plant specified in the contract. In addition, and in response to comments, ARB has deleted the definition of "replacement electricity."

"Substitute power" or "substitute electricity" means electricity that is provided to meet the terms of a power purchase contract with a specified facility or unit when that facility or unit is not generating electricity, pursuant to section 95102(a). The following requirement was clarified in section 95111(a)(2), "Substitute electricity defined pursuant to section 95102(a) must be separately reported for each specified source, as applicable." Pursuant to subsection 95111(g)(5), the reporting entity must report substitute electricity received from specified and unspecified sources consistent with the requirements of section 95111.

P-9. Calculation of Covered Emissions

Comment: WPTF is concerned that the calculations of covered emissions for the compliance obligation under the cap and trade program requires calculation of emissions for various categories of imports (unspecified, specified) then deduction of GHG emissions associated with a number of categories: imports from linked jurisdictions, specified sources below the 25,000 MT threshold, qualified exports and an adjustment for replacement energy. This approach is problematic because it requires the entity to assign an emission rate to each of the deductible categories; without guidance from ARB, an entity will always assign the highest emission rate possible (either an unspecified, or specified high emission rate) to these deductions. Instead, we recommend that the quantity in MWh for each deductible category be deducted from the appropriate quantity of imports. This would avoid the need to assign an emission rate for the deductible categories. For instance, where an entity is deducting qualified exports against unspecified imports, the quantity of qualified exports should be deducted from the quantity of unspecified imports, and the resulting quantity multiplied by the default emission rate. We recommend that ARB revise this entire section to reflect our proposed alternative approach. [FF 33.15-WPTF]

Response: ARB has modified section 95111(b)(5) to provided specificity with regard to the emissions for the RPS adjustment and for the qualified exports adjustment in the cap-and-trade regulation section 95852(b)(5). See also Responses D-5, D-1, and D-7 for discussion of covered emissions and the two adjustments. The emission factors for specified electricity sources will be provided by ARB after registration pursuant to subsection 95111(g)(1). The emission factor for unspecified electricity is provided in subsection 95111(b)(1). When ARB links with jurisdictions pursuant to subarticle 12 of the cap-and-trade regulation, ARB will publish which first points of receipt are located in linked jurisdictions and facilitate this calculation through the reporting tool. ARB does

not agree with the commenter that netting of qualified exports should be done on the basis of MWh and not emissions. The requirements for netting emissions for the qualified export adjustment are provided in the cap-and-trade regulation.

P-10. Calculation of Covered Emissions

Comment: The formula for calculating covered emissions in 95111(b)(5) should be revised for clarity. SCPPA appreciates the insertion of § 95111(b)(5) (p. 109), setting out the calculation of covered emissions relating to electricity imports. This provision is very helpful in clarifying which of the many categories of reported emissions lead to a compliance obligation. However, as this provision is so important it would benefit from some further changes for increased precision.

The definition of each term in the formula should include a cross-reference to the sections of the Regulation and/or the cap-and-trade regulation setting out the details of the calculation of the relevant category of emissions. Such a cross-reference would help to clarify the exact meaning of "CO_2e specified-not covered." Presumably this term refers to emissions from the combustion of biomass-derived fuels (C&T § 95852.2, p. 89).

The definition of "CO_2e linked" in § 95111(b)(5) refers to "emissions recognized by ARB pursuant to linkage under subarticle 12 of the cap-and-trade regulation." This wording does not seem to be correct. Subarticle 12 does not refer to recognizing emissions but, instead, to "linking with an external GHG ETS" (C&T § 95941, p. 166).

The term "$EF_{unspecified}$" is not defined. Presumably it has the same meaning as "EF_{unsp}" in § 95111(b)(1). Similarly, "$EF_{specified}$" is not defined. Presumably it has the same meaning as "EF_{sp}" in §95111(b)(2). These terms should be clarified. [FF 49.08 – SCPPA], [FF 49.09 – SCPPA], [FF 49.12 – SCPPA], [FF49.17 – SCPPA]

Response: See response D-5 regarding calculation of covered emissions. ARB agrees with the commenter's suggested changes to the terms and has modified section 95111(b)(5) to include appropriate cross references between the two regulations, as well as the definition of linkage in section 95102(a) for consistency with the cap-and-trade regulation. When ARB links with external GHG Emissions Trading Systems, the emissions associated with first points of receipt located in those jurisdictions will be removed from the calculation of the compliance obligation of the electricity importer. These emissions will still be reported to ARB for verification and for inventory purposes. This is clarified in the calculation in section 95852(b)(1)(B) of the cap-and-trade regulation and referenced by MRR suction 95111(b)(5). The terms $EF_{unspecified}$ and $EF_{specified}$ in section 95111(b)(5) were edited and now appear as EF_{unsp} and EF_{sp}, consistent with section 95111(b)(2) where they are defined.

P-11. Reporting Specified Imports and RPS Adjustment to Covered Emissions
Comment: The reporting regulation should ensure that the purchaser of non-emitting renewable energy for delivery to California, which meets the CEC's eligibility guidelines, does not require the purchaser to also hold an allowance for that purchase. The MRR should be revised to require purchases of renewable energy to be accompanied by a WREGIS certificate or REC. It should also be revised to allow for replacement power for any CEC eligible renewable energy source, not to exceed the number of WREGIS certificates generated by the renewable resource in question that the seller holds. If these RECs are held by the reporting entity in their WREGIS accounts at the time of the mandatory reporting regulation closing period, then they could be traded at a later date amongst California entities for RPS compliance.

The definition of "replacement electricity" should be modified to remove the word "variable" throughout the definition in Section 95102(a), and to remove the artificial constraint of limiting replacement electricity to coming from the same balancing authority as the underlying renewable resource. Accordingly, commenters have recommended other changes to section 95111 consistent with removing these constraints on reporting imported electricity from renewable facilities. [FF 25.01—SMUD], [FF 25.04—SMUD], [FF 25.05—SMUD], [FF 37.03—SCE], [FF 19.03 – PGE], [FF 19.12 – PGE]. [FF 19.13 – PGE]

Response: In the final modified MRR, the RPS adjustment was broadened to include all procurements of electricity during the same data year from eligible renewable energy resources located outside the state of California used to meet the requirements of California's Renewable Portfolio Standard (RPS) program that are not directly delivered. The definitions of replacement electricity and variable renewable resources (VRR) were deleted from subsection 95102(a), since the final RPS adjustment is broader than the VRR adjustment proposed for the first 15-day comment period. The definition of eligible renewable energy resource was added to subsection 95102(a). Other references in section 95111 to separately reporting replacement electricity have also been deleted. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

P-12. Reporting Specified Imports and RPS Adjustment to Covered Emissions
Comment: All Out-of-State Renewable Energy Developed Pursuant to California's Renewable Portfolio Standard (RPS) Should Have Zero GHG Emissions. The Mandatory Reporting regulation, as proposed, does not recognize the greenhouse gas (GHG) reduction benefits of certain renewable contracts entered into to meet California's renewable goals. Currently, the MRR provides no mechanism to account for the zero GHG attributes of certain out-of-state renewable energy, including, for example, out-of-state wind contracts that SDG&E has entered into. SEu appreciates the efforts of ARB to develop an alternate approach to out-of-state renewable resources in the 15-day modifications; however, the regulations as proposed in the 15-day modifications are still insufficient. As a result, SDG&E would be required to retire allowances

for these renewable resources, which are otherwise counted as renewable by California law, and whose operation results in reduced GHG emissions by backing down generation of fossil resources. The State's renewable programs are already identified by ARB as one of the costliest GHG reduction measures and these costs should not be unnecessarily increased. It is only fair that SDG&E's customers receive credit for the GHG attributes that they have already purchased through their out-of-state renewable contracts and not be required to pay again for the GHG benefits. Under the current RPS program, so long as the retail seller complies with the statute's delivery requirements and other regulations surrounding RPS eligibility, the conventional generation re-bundled with RECs and imported to California is treated as renewable. [FF 55.01—SEU]

The mandatory reporting regulation Would Negatively Impact SDG&E Ratepayers With Respect to Renewables Commitments Already Made. The proposed MRR would not recognize the GHG reducing impacts that existing transactions have and would require SDG&E to obtain additional allowances associated with the amount of energy produced by these existing projects. Over the period to 2020, the treatment of out-of-state renewables in the 15-day modifications would add an additional $50 - $200 million dollars in ratepayer cost if ARB regulations are not revised to accurately account for these zero GHG renewable resources. The fact that these wind projects are in their own balancing authority, with no fossil resources located within the balancing authority, makes the replacement electricity requirements of the MRR impossible to meet. In addition, at least a third of the balancing authority areas in the WECC outside of California are small and controlled by a single entity and many control no load. Therefore, the renewable energy will be subject to market power in many of these small balancing authorities. [FF 55.02—SEU]

The mandatory reporting regulation Would Negatively Impact California Electricity Consumers With Respect of Future Out-of-State Renewable Energy Transactions That Meet RPS Requirements. Under the cap-and-trade program and mandatory reporting regulation, some firmed and shaped transactions and all unbundled REC transactions would not be treated as reducing GHG emissions. Not only does this frustrate the purpose and intent of SBx1 2, which contemplated entities could engage in such transactions as a means of controlling the costs of program compliance, it violates the requirements of State law as discussed below. .ARB's treatment of out-of-state energy contradicts the legislative intent of the RPS program, which plainly recognizes the environmental benefits or imported generation and RECs. The MRR uses the exact same definition of RECs as Section 399.12 and SB x1 2. The MRR also references Section 399.12 to acknowledge that "a REC includes all renewable and environmental attributes associated with the production of electricity from an eligible renewable energy resource." Despite these efforts at consistency, the MRR fails to recognize the GHG emission reducing attributes of rebundled energy outside the same balancing authority or any rebundled energy of non-variable renewable energy. This refusal to recognize certain RECs' attributes

directly conflicts with the state's statutory scheme and legislative intent. The cap-and-trade and mandatory reporting regulations do not deserve any administrative deference. First, ARB is internally inconsistent within the MRR when it states in one definition that all renewable and environmental attributes count towards a REC, but then refuses to recognize those attributes for certain RECs in a second definition. Second, the cap-and-trade and mandatory reporting regulations contradict the California Legislature's clearly enunciated approach toward climate change controls. Third, ARB's interpretation of which RECs receive GHG zero emissions treatment is not reasonable. By refusing to recognize the environmental attributes of out-of-state renewable energy with replacement electricity outside a balancing authority or unbundled RECs, the MRR implies that GHG emission reductions performed outside of California are inferior to reductions performed in-state or in close proximity to California's borders. Such reasoning is factually incorrect and fails to understand that reducing GHG emissions anywhere in the WECC benefits California. For all these reasons, the MRR's refusal to convey zero GHG emissions treatment for rebundled energy outside the same balancing authority for variable renewable energy and for all non-variable renewable energy is unreasonable and contradicts current (and future) statutory law and legislative intent. [FF 55.03—SEU]

Renewable power that is sold without RECs becomes "null power" and like unspecified power imported to California should be assigned a default GHG emission rate for any compliance obligation purposes. This approach would be consistent with the contractual terms of existing contracts and expectations of the parties who signed the contract. While that may create issues for linkage, it would be no different than dealing with existing long-term contracts developed before AB 32 that do not contemplate a GHG cost; the issue can be resolved as part of the linking process. Modify definition of "Replacement electricity" as shown in comment letter. [FF 55.04—SEU]

Response: Whether customers of California utilities have legal ownership of the GHG attributes through either purchasing unbundled or tradable RECs or purchasing the renewable electricity from out-of-state facilities is not a matter for ARB to decide and is not required under the proposed reporting regulation. The provisions to report directly delivered electricity and allow an RPS adjustment to covered emissions largely address this concern within the limits of the consistency and rigor required for GHG reporting and the cap-and-trade regulation. Whether each MWh of renewable electricity generated and recognized under RPS results in a quantifiable and enforceable reduction in GHG emissions is dependent on variables that are beyond the scope of California's Renewable Portfolio Standard. Pursuant to section 95852(b)(4) of the cap-and-trade regulation, tradable RECs (TRECS) are not recognized. See also Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

P-13. Reporting Specified Imports and RPS Adjustment to Covered Emissions
Comment: Specified sources: WPTF notes that it is inappropriate to include the purchase of generation from specified renewable resources under specified sources. By definition, if replacement energy has been provided, then no corresponding physical quantity has been delivered from the renewable resource. For this reason, we recommend that ARB include a separate paragraph on reporting of purchases from renewable resources, and corresponding replacement electricity. [FF 33.10—WPTF]

Response: The adjustment for replacement electricity was deleted, so the comment no longer applies. Direct deliveries of all (imported) electricity from unspecified and specified sources must be reported, including electricity generated by specified renewable resources. In addition, procurement directly from eligible renewable energy resources used in the RPS adjustment must be separately reported.

P-14. RPS Adjustment to Covered Emissions and Replacement Power
Comment: The Utilities disagree with the proposal to require that replacement electricity be sourced from the same balancing authority area and suggest a change to resolve any discrepancies between the MRR, the State's RPS program, the Scoping Plan and the reality of power transmission constraints. [FF 05.02—REU]

Strongly recommend that the last sentence of the definition for "Replacement Electricity" be removed. The last sentence of the definition states that replacement electricity must originate in the same balancing authority area as the renewable resource it is replacing. Our presumption is that the concept of "replacement electricity" is intended to facilitate state policy goals, laws and regulations regarding Renewable Portfolio Standards. In particular, we presume it is intended to facilitate so-called "firming and shaping" deals, used to deliver power from out-of-state resources into California. The requirement that replacement electricity originate in the same balancing area, however, is not aligned with either system physical needs or commercial practices. [FF 05.05—REU], [FF 14.01—MSCG]

Delete the requirement proposed in 95102(a) that that "replacement electricity" associated with generation from a variable renewable energy resource be located in the same balancing authority area as the underlying renewable electricity it represents, and instead, requiring that the replacement electricity be located in the Western Electricity Coordination council (WECC) region. [FF 36.01—UCS]

The definition for Replacement Electricity needs to be clarified. The definition of "Replacement Electricity" should be clarified to indicate the type of service or volume (megawatt-hours) covered, and should be expanded to include how it may be acquired, and when it may be used. In addition, regardless of how it is

ultimately defined, it is unnecessary for replacement electricity to be limited to the same sourced balancing authority area. [FF39.02—PC]

The Utilities disagree with the proposal to require that replacement electricity be sourced from the same balancing authority area. The Utilities note that there is a disconnect between the firming and shaping requirements for RPS eligible resources as defined in the California Energy Commission's RPS Guidebook and in the MRR. In the RPS Guidebook, firming and shaping agreements state that "… delivered electricity may originate from a control area that is different from that in which the RPS-certified facility is located. Limitations on the use of firmed and shaped products as proposed in both the Cap and Trade and MRR proposed Regulations would be inconsistent with the Scoping Plan and would create a barrier to achieving the relied upon reductions. The Utilities again assert that this provision is a conflict of California State policies. Modify sections 95802(a)(237), 95802(a)(272), and 95852(b)(3) as provided in full comment letter. [FF C&T 128—MID]

CARB Should Amend the Definition of "Replacement Electricity" CARB has defined the term "Replacement Electricity" at 17 CCR §95102(a)(336) and 17 CCR §95802(a)(237). Included in the definition is a restriction that Replacement Electricity must originate1 in the same Balancing Authority Area as the Variable Renewable Resource it is associated with. It is unclear why this restriction has been proposed. "Replacement Electricity" is a term evidently created to address the commercial practice of using "Firming and Shaping" ("F&S") contracts for the procurement of variable renewable resource energy. Renewable resource energy procurement is largely driven by the requirements of California's Renewable Portfolio Standard (RPS). Noble Solutions is cognizant of CARB's concern about transactions in which a GHG-producing resource "supports" the import of an intermittent zero-emissions renewable resource. It might seem as if the RPS-eligible import supported by an F&S agreement "causes" an increase in GHGs if the "Replacement Electricity" is produced by a GHG-producing resource. But this assumption is not accurate. [FF 48.01—NS]

SCPPA appreciates the Proposed Changes providing for Replacement Electricity to have the emissions factor of the renewable energy for which it substitutes. However, the definition of "Replacement Electricity" in § 95102(a)(336) (p. 57) is too restrictive. First, the definition restricts Replacement Electricity to energy that replaces renewable energy that meets the narrow definition of "Variable Renewable Resources" (§ 95102(a)(394), p. 65). That definition excludes many sources of renewable energy such as small hydroelectric projects at impoundments, geothermal projects, biomass projects, and biogas combustion. Second, the last sentence of the definition restricts replacement energy to energy from the balancing authority in which the renewable resource is located. That sentence should be deleted. The definition of "Replacement Electricity" in § 95102(a)(336) (p. 57) should be revised as provided to eliminate these two undue restrictions. [FF 49.03—SCPPA]

The definition of “Variable Renewable Resource” should be deleted. For the reasons discussed above, the term “Variable Renewable Resources” as defined in § 95102(a)(394) (p. 65) is too narrow for the purposes of “Replacement Electricity”. This term should not be used in the definition of “Replacement Electricity” or elsewhere in the Regulation, and should be deleted. All references to “Variable Renewable Resources” in the Regulation should be replaced with references to “renewable resources.” [FF49.04—SCPPA]

The definition of “CO_2e VRR adjustment” in § 95111(b)(5) refers to replacement electricity associated with variable renewable electricity purchases. For the reasons set out in section II.C above, replacement electricity should not be limited to variable renewable electricity. Proposed changes to the formula for calculating the CO_2e VRR adjustment are discussed in the following section IV.B. [FF 49.10—SCPPA]

Revise the formula for calculating the replacement electricity adjustment in 95111(b)(5) to correctly address high-emitting sources of replacement electricity. [FF 14.13—SCPPA]

The formula for calculating the “CO2e VRR adjustment” in § 95111(b)(5) should be revised. [FF 14.14—SCPPA]

The references to “variable” should be deleted. [FF 14.15—SCPPA]

The term “MWhVRR” should be defined. [FF 14.16—SCPPA]

The adjustment does not correctly address the situation in which replacement electricity is specified and its associated emissions factor is greater than the default emission factor for unspecified electricity. According to the primary formula in § 95111(b)(5), the replacement electricity adjustment is a deduction from the total covered emissions, not an addition. The deduction should be equal to the default emission factor times the relevant megawatt hours, resulting in the reporting entity remaining liable for the emissions from the replacement electricity that exceed the default emission factor. Proposed modifications are shown in the comment letter. [FF 14.18—SCPPA]

Revise delivery tracking conditions in 95111(g)(3) to accommodate renewable and replacement electricity. Section 95111(g)(3) (p. 118) sets out delivery tracking conditions for claiming imports of electricity from specified sources, relating both to direct delivery and to renewable electricity with replacement electricity. The second condition, § 95111(g)(3)(B), requires the importer to have a contract to “receive” the electricity generated by the facility. This is not appropriate for renewable electricity that requires replacement electricity for firming and shaping purposes. Depending on the type of firming and shaping arrangements the importer has in place, the availability of transmission and other

factors, the importer may not physically receive the electricity generated by the renewable resource. The Regulation should not require the importer to physically receive the renewable energy. This would restrict the ability of utilities to cost effectively obtain renewable energy products. [FF 14.21—SCPPA]

The definition of Replacement Electricity should not limit the origin of replacement electricity to the same balancing authority area as the renewable generating facility. Definition (336) Replacement Electricity includes the following sentence: “The physical location of the variable renewable energy facility busbar and the first point of receipt on the NERC E-tag for the replacement electricity must be located in the same balancing authority area”. The emission factor for unspecified electricity is the same (0.428 MT CO2e/MWh) regardless of which region the electricity originates from. If the replacement electricity is “unspecified”, the reported emissions will be the same regardless of whether it originates from the same balancing authority area or elsewhere within the WECC. If the replacement electricity is “specified”, the reported emissions will be based on the emission factor for the specified source. Therefore, it makes no difference whether or not the replacement electricity originates from the same balancing authority area as the renewable generation it replaces. Restricting the origin of replacement electricity to the same balancing authority area as the renewable energy generating facility could result in a cap-and-trade emissions compliance obligation being imposed on renewable energy imports if the replacement electricity does not comply with this requirement. Other potential impacts include discouraging development of new renewable generating resources in regions where additional transmission capacity is not available. To avoid these and other potential adverse impacts, the last sentence should be deleted from the definition of replacement electricity. In addition, replacement electricity may also be needed for non-variable renewable resources, and is delivered to satisfy scheduling requirements, not hourly load requirements. [FF 51.03—LADWP]

The proposed modification requiring electricity purchased from variable renewable resources and replacement electricity delivered to be reported separately, and the need for this change, are unclear. Why is the new requirement to separately report replacement electricity for variable renewable resources included under both 95111(a)(3) (unspecified imports) and 95111(a)(4) (specified imports)? 95111(a)(3) Imported Electricity from Unspecified Sources (C) "Separately report replacement electricity for variable renewable resources" 95111(a)(4) Imported Electricity from Specified Facilities or Units (A)(3) "The purchase of generation from specified variable renewable resources and the replacement electricity delivered must be separately reported." The proposed amendment to 95111(a)(4)(A)(3) to separately report "The purchase of generation from specified variable renewable resources" and "the replacement electricity delivered" conflicts with the requirement in 95111(a)(4)(A)(1) to report "The amount of imported electricity from specified facilities or units as measured at the busbar". Generation from specified variable renewable resources is

purchased at the busbar, and the replacement electricity delivered is imported into California. Reporting generation from specified variable renewable resources and replacement electricity delivered separately is inconsistent with the reporting requirements for other specified sources. This amendment has a potentially significant downside if the replacement electricity does not meet the definition of "replacement electricity" (e.g. originates from a different balancing authority area than the renewable generating facility it is replacing), and as a result the emissions cannot be subtracted out resulting in a cap-and-trade compliance obligation on what was originally renewable energy. Recommendation: Replacement electricity for variable renewable generating facilities should be reported the same as other specified renewable imports (MWh as measured at the busbar, and calculate emissions using the emission factor for the specified generating facility). The proposed modifications to require separate reporting of renewable energy purchased and replacement electricity delivered should be deleted. In addition, terminology used in the reporting requirements sections should be consistent with the terms defined in section 95102. [FF 51.09—LADWP]

The adjustment factor for replacement electricity associated with variable renewable electricity purchases (MWhVRR term) in equation 95111(b)(5) is not defined. [FF 51.13—LADWP]

§ 95111(g)(3) Delivery Tracking Conditions for Specified Imports. Does condition (B) "The electricity importer has a written power contract to receive electricity generated by the facility or unit" refer to the variable renewable generating facility, or the source of the replacement electricity? [FF 51.14—LADWP]

Response: Impartial treatment of in-state and out-of-state generation under the MRR and the cap-and-trade program requires source-based emissions accounting based on direct delivery of electricity. The final RPS adjustment largely addresses retail providers' concerns about increased costs of the RPS program, but retains some limitations necessary for annual reporting and verification as well as protections against double-counting reduced emissions. In the final amendment, the adjustment was broadened to include all procurements of electricity during the same data year from eligible renewable energy resources located outside the state of California used to meet the requirements of California's Renewable Portfolio Standard (RPS) program that are not directly delivered.

The equation for covered emissions was moved from MRR section 95111(b)(5) to section 95852(b)(1)(B) of the cap-and-trade regulation to clarify quantification of compliance obligations. ARB broadened the renewable resource adjustment in the equation to include most types of RPS compliance mechanisms by replacing the VRR adjustment with the RPS adjustment, which is reflected in the reported data categories in subsection 95111(b)(5).

In response to comments, ARB has removed the restriction that replacement electricity be sourced from the same balancing authority area. The compliance obligation reduction for variable renewable resources (VRR) is now limited to only those procurements used for RPS compliance. ARB has also removed the definitions of "replacement electricity" and "variable renewable resources" (VRR) from section 95102(a), since the final RPS adjustment is broader than the VRR adjustment proposed for the first 15-day comment period. The definition of "eligible renewable energy resource" was added to section 95102(a). Other references in section 95111 to reporting replacement electricity and VRR adjustment have been deleted. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions and D-5 calculation of covered emissions.

P-15. Qualified Exports and Simultaneous Exchanges

Comment: The definition of a qualified export is synonymous with the concept of a wheel-through as described in 95111(a), since neither would be subject to a compliance obligation, and both constitute an import and export within the same hour of delivery. PG&E proposes that the following sentence be added to the definition of qualified export: "A qualified export is also known as a wheelthrough." [FF 19.08—PGE]

Subsections 95111(a)(6) and (a)(9). As noted above in the definitions section, a Qualified Export and a Wheel-Through should be considered the same, since neither would be subject to a compliance obligation, and both constitute an import and export within the same hour of Subsections 95111(a)(6) and (a)(9). As noted above in the definitions section, a Qualified Export and a Wheel-Through should be considered the same, since neither would be subject to a compliance obligation, and both constitute an import and export within the same hour of delivery. If ARB adopts PG&E's proposed definition of qualified export as including a wheelthrough, PG&E recommends removing 95111(a)(9), Electricity Wheeled Through California, because qualified exports are addressed for reporting purposes in 95111(a)(6)(E). [FF 19.16—PGE]

Electricity wheeled through California and Qualified Exports: The regulation currently exempts emissions from imports from a carbon obligation when the import is associated with a wheel-through or qualified export. However, the difference between these two types of export transactions is unclear. To avoid confusion, we suggest that electricity that is wheeled through be defined as an import and export transaction occurring on a single tag. Further, the regulation treats the export side of the two transactions differently. For electricity that is wheeled through, the regulation directs electricity entities to exclude wheel-through transactions from both reported imports and reported exports. Conversely, for qualified exports, electricity entities must report both the imports and exports, but subtract emissions associated with 'qualified exports' from covered emissions. WPTF recommends that both electricity wheeled-through and qualified exports be treated the same with respect to reporting and

calculation of compliance emissions, and that this guidance be clarified in section 95111, rather than in the definition. Recommend changes to definitions as shown in comment letter. [FF 33.07—WPTF]

"CO_2e qualified exports" is defined in § 95111(b)(5) only by reference to the definition of "qualified exports" in § 95102(a)(318) (p. 54). There is no separate section on qualified exports in the body of the Regulation. For clarity, a formula for calculating the qualified exports "CO_2e qualified exports" is defined in § 95111(b)(5) only by reference to the definition of "qualified exports" in § 95102(a)(318) (p. 54). There is no separate section on qualified exports in the body of the Regulation. For clarity, a formula for calculating the qualified exports should be added. [FF 49.11—SCPPA]

Include a formula for calculating the adjustment for qualified exports in 95111(b)(5). As discussed above, "CO_2e qualified exports" is not sufficiently defined in § 95111(b)(5) or elsewhere. Questions have arisen as to whether, for example, qualified exports need to be subtracted from associated imports on an hourly basis, which would be prohibitively data-intensive and difficult to verify. For clarity, a formula for calculating the qualified exports adjustment should be included, similar to the formula for calculating the replacement electricity adjustment. See comment letter for proposed formula. [FF 49.19—SCPPA]

It is unclear whether emissions for Qualified Exports should be netted against imports hourly or annually. Based on the Calculation of covered emissions for compliance obligation under cap-and-trade regulation equation in 95111(b)(5), it would appear that emissions for qualified exports are to be subtracted from total imported electricity emissions on an annual basis. However, the definition of qualified exports could be interpreted to mean that qualified exports need to be subtracted from associated imports on an hourly basis. In order to understand qualified exports, more information is needed to understand what ARB is trying to achieve and how qualified exports should be calculated: LADWP recommends the following approach to reporting and netting out emissions for Qualified Exports provided in our full comment letter. Also Emissions for Qualified Exports should be subtracted from imported emissions on an annual basis rather than hour by hour. We recommend that ARB clarify the emission calculation and reporting requirements for Qualified Exports in section 95111(a)(6) Exported Electricity. [FF 51.11—LADWP]

As discussed above, WPTF recommends equivalent treatment of electricity that is wheeled through California and qualified exports. Further we are concerned that the requirement that entities report associated emissions for exported electricity necessitates an assumed emission rate for the exports. This is reinforced by the provision that the quantity of exported electricity is reported „as measured at the last point of delivery", which presumes that the power is associated with an injection to the grid within California. Rather than impute an emission rate for exports, we recommend that ARB simply require entities to

report the quantity of exported electricity. For electricity that is wheeled through and qualified exports, this quantity would simply be deducted from the relevant quantity of imports before applying the appropriate emission factor. We recommend changes (as shown in comment letter) to paragraph 95111(a)(6) to reflect this. [FF 33.12—WPTF]

Paragraph 95111(a)(9) - Electricity Wheeled Through California - should be deleted. [FF 33.13—WPTF]

Response: A wheel-though is documented on a single NERC e-Tag and is therefore not synonymous with a qualified export. These different types of transactions must be reported separately for accurate emissions accounting. Wheel-throughs are delivered into California, but do not sink in California; therefore, the electricity is not consumed in California. ARB requires they be reported to aid in data comparison with other state agencies. Emissions associated with qualified exports and the hourly netting requirement are now described in sections 95802(a) and 95852(b)(5) of the cap-and-trade regulation.

P-16. "Qualified Exports" Definition and Verification Documentation
Comment: Definition (318) should describe what qualifies as a Qualified Export, but should not include prescriptive calculation requirements such as "Emissions associated with qualified exports may be subtracted from the associated imports. Qualified exports shall not result in a negative compliance obligation for any hour". Emissions calculation requirements belong in section 95111 of the regulation, not in the definitions.

In addition, documentation should not be limited to NERC e-Tags. Section 95111(a)(10) Verification Documentation allows various types of documentation (NERC e-Tags, contracts, settlement data, or other information) to confirm electricity procurements and deliveries. All types of documentation should be allowed. Therefore, we recommend the changes provided in our comment letter to the definition of Qualified Exports. [FF 51.02—LADWP]

Response: ARB has modified section 95111 of the MRR to now refer to the definition for "qualified exports" in section 95802(a) of the cap-and-trade regulation and other requirements provided in section 95852(b)(5). ARB has limited documentation regarding qualified exports to NERC e-Tags to simplify reporting and verification.

P-17. Relationship Between Cap-and-Trade Regulation Definition of Resource Shuffling and MRR section 95111(g)(4)
Comment: The relationship between the cap-and-trade rule's definition of "resource shuffling" and Section 95111(g)(4) of the Mandatory Reporting Rule is unclear. Reading the cap-and-trade rule's proposed definition of resource shuffling in conjunction with the proposed modifications to the MRR, it appears that ARB may have intended to narrow what constitutes resource shuffling

activities via the proposed changes to MRR Section 95111(g)(4). That Section, describing five categories of "specified sources," parallels subsection (A) of the cap-and-trade rule's resource shuffling definition by differentiating sources of electricity historically consumed in California from new sources of electricity and existing sources with additional capacity. See MRR § 95111(g)(4)(A), (D), (E). If ARB intended to reference all or any part of MRR Section 95111(g)(4) as sources and activities excluded from the cap-and-trade rule's definition of resource shuffling, then Powerex requests that this be clarified by making the reference explicit. [FF 46.02—PX]

Further, if subsection (A) of MRR Section 95111(g)(4) is, indeed, intended to function as a resource shuffling exclusion, then Powerex requests that ARB develop additional resources to enable the regulated community to utilize the exclusion. Section 95111(g)(4)(A) of the MRR states that when "imported electricity from a specified facility . . . is greater than 80 percent of net generation of that year, any subsequent GPE [Generation Providing Entity] for the facility or purchasing-selling entity with a written power contract may claim it as a specified source." Given that ARB will not know the imported volumes from specified facilities until after June 1 of the following year, Powerex is unsure how entities will be able to determine if the 80 percent threshold has been met before the filing deadline and whether or not their specified volumes will qualify. ARB should describe their proposed timing of this determination and how any subsequent adjustments will be made to filings once the final list of qualified specified facilities is known for a given year. [FF 46.03—PX]

Finally, if the proposed MRR Section 95111(g)(4)(B) is intended to function as a resource shuffling exclusion, then Powerex requests that ARB revise that Section to encompass not just "deliveries from existing federally owned hydroelectric facilities by exclusive marketers" (emphasis added), but also exclusive marketer deliveries from hydroelectric facilities that are provincially (Canadian) or state owned. [FF 46.04—PX]

The Proposed Reporting Requirements in MRR Section 95111(a)(4) and (5) Could be Read to Categorize Legitimate Electricity Importation as "Resource Shuffling." Under Section 95111(a)(4) of the MRR, an electric power entity must "report all direct delivery of electricity as from a specified source for facilities or units in which they are a generation providing entity (GPE) or have a written power contract to procure electricity." Similarly, Section 95111(a)(5) of the MRR requires that entities "… must separately report imported electricity supplied by asset-controlling suppliers recognized by ARB. . . [and] report [that] delivered electricity as specified and not as unspecified." At the same time, entities are expressly prohibited from importing electricity into California from a specified facility, with an emission factor below the default emission factor, that has not historically served California load. cap-and-trade rule §§ 95852(b)(1) and 95802(a)(245). Powerex recommends that this new provision be clarified to ensure that it does not conflict with subsections 95111(a)(4) and (5). That is,

subsections 95111(a)(4) and (5) should clearly state that entities are permitted to report imported electricity, which would otherwise have been reported as being from a specified facility with an emission factor below the default emission factor, as being from an unspecified source. Absent such a clarification, subsections 95111(a)(4) and (5) could be read to require that electric power entities that are GPEs or have written power contracts with a particular source may not import electricity from that source unless they have historically served California load. [FF 46.06—PX]

In the Mandatory Report Rule Section 95111 (g)(4)(A) regarding specified import sources, CARB's identifies parameters that would define a historical commitment of an out-of-state resource to serve California loads and resolve resource shuffling concerns based on existing and renegotiated contracts. CARB should consider an alternative to the existing and re-contracting requirement, which would exempt gas-fired resources generally from resource shuffling concerns based on their role as the marginal resource for the region's power markets. Gas-fired generators which have historically switched between serving in-state and out-of-state loads depending on where peak conditions were occurring at the time, and would continue to do so while retaining the use of the their plant-specific emission rate as verified through CARB registration as a specified source and NERC e-Tags. CARB would instead focus on addressing the shuffling of non-gas fired resources, where the potential for emissions leakage is greatest. [FF 41.01—SG]

If CARB determines that a historical contract linkage for specified source sales to California is appropriate, it should consider a longer time period over which to establish the baseline, allow for portfolio sales, and reduce restrictions on re-contracting to maintain the specified source emission rate. Establishing historical sales to California based on a single year (2009) could discriminate against resources that may have made significantly higher California sales in previous years, but due market conditions, maintenance or other situational factors had lower sales in 2009. It is recommended that CARB consider an alternative metric such as the highest sales in the last 10 years, or similar timeframe. [FF 41.02—SG]

Entities with multiple units within a generation portfolio may not identify specific units in a power sales contract. Nonetheless, specification based on historical sales from a portfolio of resources should be permitted. This is particularly feasible where all units within the portfolio have the same emission rate, such as a fleet of efficient gas-fired resources, and where those sales may be tracked to California via e-Tags. [FF 41.03—SG]

Requiring re-contracting with the same California counterparty within 12 months is overly restrictive, and could increase costs for California consumers. CARB should allow sales into the CAISO spot markets to qualify as a "contract", and/or a significantly longer time frame such as 5 years for re-contracting. Ultimately,

California is best served by a flexible specification protocol which does not overly restrict commercial transactions, while focusing on those sources with the highest leakage potential. [FF 41.04—SG]

The specified source reporting requirements in 95111(g)(4) should be revised. Section 95111(g)(4) sets out additional reporting requirements for specified sources that appear to relate to resource shuffling. If certain information reported under these provisions could lead to the importer being charged with resource shuffling under the cap-and-trade regulation, this should be clarified. SCPPA has significant concerns with the resource shuffling provisions in the cap-and-trade regulation and recommends that these provisions be deferred to another proceeding in) which they can be more properly evaluated. However, if the resource shuffling provisions are retained, § 95111(g)(4)(A) ("Electricity historically consumed in California"), appropriately revised, should form part of the definition of resource shuffling in § 95802(a)(245) of the cap-and-trade regulation. The final sentence of § 95111(g)(4)(A) should be revised. It addresses a situation in which more than 80 percent of net generation from a specified facility was imported into California in 2009. This raises questions about the treatment of specified facilities from which less than 80 percent of net generation was imported in 2009. The implication is that unless 80 percent of net generation from a specified source was purchased by a California entity in 2009, the source cannot be claimed as a specified source. This is an unreasonable limitation on sources that otherwise fit the definition of specified sources and are not involved in resource shuffling. Furthermore, the 80 percent requirement seems arbitrary and is very high, considering that any one California importer may take only a small fraction of the electricity generated by a large out-of-state facility. This part of section (A) should also apply if the share or quantity of generation imported from the relevant facility (even if it less than 80 percent) has not increased since 2009. Similar language is included in the second sentence of section (A) and in section (C). This provision should be revised as provided. [FF 49.22—SCPPA]

§ 95111(g)(4) How will Additional Information for Specified Sources be used? Five new conditions for specified imports have been added to section 95111(g)(4), which are summarized below. Additional Information for Specified Sources – "For each claim to a specified source of electricity, the electricity importer must indicate whether one or more of the following conditions applies." (A) Electricity historically consumed in California. (B) Deliveries from existing federally owned hydroelectricity facilities by exclusive marketers. (C) Deliveries from existing federally owned hydroelectricity facilities allocated by contract. (D) Deliveries from new facilities. (E) Deliveries from existing facilities with additional capacity. What if a generating facility meets the definition of specified source (full or partial ownership in the facility/unit, written contract to procure electricity generated by that facility/unit, or electricity procured from an ARB recognized asset-controlling supplier), but doesn't meet one of the five conditions in

95111(g)(4)? Will ARB deny the “claim to a specified source of electricity” and assign default emissions to the imported electricity? [FF 51.15—LADWP]

Definition of Resource Shuffling Should Be Added in Section 95102. Since resource shuffling is an intentional underreporting of GHG emissions, a definition should be included in the MRR. The definition below is the same as SEu is proposing in the cap-and-trade regulation and the rationale is explained in the SEu comments on the cap-and-trade 15-day modifications. “Resource Shuffling” means intentionally underreporting emissions of imported electricity in any of the following ways and does not include transactions entered into for operational purposes as demonstrated according to the provisions in § 95111(b)(2) of the MRR: (A) An emission factor below the default emission factor is reported pursuant to MRR for a generation facility or unit of an asset-controlling supplier that has not historically served California load (excluding new or expanded facility or unit capacity). And, during the same interval(s), electricity from the same asset-controlling supplier with higher emissions was delivered to serve load located outside California and in a jurisdiction that is not linked with California’s cap-and-trade program; or (B) The default emission factor or a lower emissions factor is reported pursuant to MRR, for electricity that replaces electricity with an emissions factor higher than the default emission factor that serves load in California pursuant to an ownership interest or long-term contract; except when the higher emitting electricity no longer serves California load as a result of compliance with the Emission Performance Standards adopted by the California Energy Commission and the California Public Utilities Commission pursuant to Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006); or (C) Specified electricity with an emissions factor higher than the default emission factor is knowingly reported by the electricity importer as unspecified electricity. [FF 55.08—SEU]

Section 95111(a)(3) dealing with imported electricity from unspecified sources should be modified to prevent resource shuffling by not allowing reporting of high emitting specified electricity as unspecified in order to lower the compliance obligation. However, the MRR should allow specified resources with less than the default rate to report as unspecified if the importer wants to avoid registration of the resource pursuant to 95111(g) or if the importer wants to avoid potential claims of resource shuffling. §95111(a)(3)Imported Electricity from Unspecified Sources. Imported electricity from specified sources with an emissions rate higher than the default emissions factor may not be reported knowingly as electricity from an unspecified source. Imported electricity from specified sources with an emissions rate lower than the default emissions factor may be reported as electricity from an unspecified source. When reporting imported electricity from unspecified sources, the electric power entity must aggregate electricity deliveries and associated GHG emissions by first point of receipt. [FF 55.09—SEU]

Rules for specification of imports should not require that the natural gas resources have historically served California load. As we state in our comments on the cap and trade regulation, natural gas generation is dynamic throughout the WECC. Therefore, requiring that any an entity that wants to claim a specified emission rate for a resource must be able to establish that that resource has historically served California load is not consistent with market realities, will inhibit normal, efficient market transactions and reduce the liquidity of the California power markets. In particular, the requirement that a generation source has historically served load in California would disadvantage natural gas-fired resources that have historically sold their output through markets instead of bilateral contracts, as they could not meet the requirements for specification. CARB should eliminate the historic load requirement as a prerequisite to being classified as a specified resource for natural gas resources. [FF 33.04—WPTF]

It is not clear whether information required under paragraph 95111(g)(4) is intended as a condition for claiming specified power, or required only for monitoring purposes. If the former, this should be explicit. In either case, as we discuss above, natural gas resources should not be required to meet a historic consumption test. See full letter for specific proposed edits to section 95111(g) address concerns. [FF 33.16b—WPTF]

Under “Additional Information for Specified Sources”, “A” addresses a requirement to indicate whether or not the specified source electricity has been “… historically consumed in California”. Commenter recommends that the requirement to report this history be deleted. Alternatively, it should be made clear that it must be reported only if known, and made explicit that qualifying under one of the five categories (A-E) is not necessary for a resource to be claimed as “specified”. [FF 14.07—MSCG]

As drafted, the registration requirements for specified sources of imported electricity with emissions below the default rate suggest that imported power may only be reported at a lower rate if delivered in quantities no greater than were reported for calendar year 2009. Calpine is concerned that these requirements would work in tandem with the Proposed cap-and-trade regulation’s prohibition on “resource shuffling” to create a strong disincentive against future sales to California from Calpine’s low-emitting out-of-state resources. Calpine does not believe CARB should preclude reporting of increased deliveries of power from these resources at their actual emissions rate. Indeed, a well-designed cap-and-trade program should incentivize dispatch from the lowest carbon resources, regardless where they are located. Thus, the Proposed Amendments should be revised to clarify that electric power entities that did not report imported power as a specified source for calendar year 2009 may be registered as a specified source and may report their emissions from such sources at lower than the default rate, both for increased deliveries of power to California and for sales of power pursuant to new contracts. [FF 30.01—Calpine]

In order to avoid resource shuffling, the following should be added to the reporting section for specified electricity to clarify that shuffling of an asset-controlling supplier's resources is not allowed. 95111(a)(4)(B) A facility or unit that is a generation source of an asset-controlling supplier must report emissions based on the asset-controlling supplier unless the facility or unit has historically served California load or the facility or unit has new or expanded capacity. [FF 55.10—SEU]

Modify the Calculation of GHG Emissions of Specified Electricity In order to avoid resource shuffling, the following should be added to the GHG emissions calculation section for specified electricity to clarify that shuffling of electricity from a high emitting resource fully or partially owned by an electricity importer or under long-term contract to the electricity importer is not allowed. The calculation is complicated because there may be legitimate reasons the electricity cannot be imported to California. The proposed calculation tries to strike a balance although it is recognized that demonstrating an operational or transmission constraint can be difficult. See full letter for specific edits proposed. [FF 55.11—SEU]

In order to avoid resource shuffling, the emissions of asset-controlling suppliers must be calculated when so indicated by the specified electricity provisions designed to reduce resource shuffling. [FF 55.12—SEU]

Response: When electricity generated by a facility located outside California is directly delivered to California, and the electricity importer (1) is a Generation Providing Entity (GPE) defined pursuant to MRR section 95102(a) or (2) has a written power contract for electricity generated by the facility, the electricity importer must report the delivery as a specified import, pursuant to sections 95111(a)(4) and 95111(g)(3). The electricity importer must register the specified source with ARB, pursuant to section 95111(g)(1), to receive a facility-specific emission factor calculated by the Executive Officer, pursuant to subsection 95111(b)(2).

Reporting entities may choose to use a higher emission factor, including the default emission factor for unspecified sources, to avoid intentionally underreporting. If claiming a lower facility-specific emission factor would cause the reporting entity to "receive credit based on emissions reductions that have not occurred," pursuant to the definition of resource shuffling in section 95802(a) of the cap-and-trade regulation, the reporting entity must specify the source, but may use a higher emission factor. Specifying the source will provide necessary information for ARB program monitoring while providing flexibility to conform to the resource shuffling prohibition pursuant to section 95852(b) of the cap-and-trade regulation, as well as conform to requirements in the MRR to certify the GHG emissions data report is "true, accurate, and complete." Conformance with the prohibition of resource shuffling is strictly an ARB audit and enforcement function. Verifiers do not review conformance with the prohibition of resource shuffling.

In subsection 95111(g)(4), ARB added information requirements for claims to specified source deliveries. Whether electricity imports can be described by one of these categories is not required for a valid claim to a specified source. ARB does not intend the information required in section 95111(g)(4) to be used to exclude the activities that would be considered resource shuffling by an individual reporting entity, pursuant to the cap-and-trade regulation. Entities report whether the power is from a source that has historically served California, is from a federally owned hydroelectric facility either under contract or delivered by an exclusive marketer, or is from a new facility or new capacity at an existing facility. This information will not be used, as was envisioned originally, to assist entities trying to report within the bounds of resource shuffling limitations in the cap-and-trade regulation and to inform the verification process. Instead, the information required pursuant to section 95111(g)(4) will be used by ARB, in addition to data from section 95111(c) and other available data, to monitor whether GHG emission reductions from electricity imported into California are real or are negated by actions outside the control of individual reporting entities and ARB's jurisdiction.

P-18. ARB Recognition of Asset-Controlling Suppliers

Comment: As BPA has previously discussed with ARB staff, it is BPA's intent to voluntarily report on GHG emissions as an out-of-state Asset Controlling Supplier. BPA will do so as a service to our California customers who would like to claim a BPA-specific emission rate for their purchases from BPA (note that BPA is statutorily prohibited from making specified sales from a particular generating unit – it may only sell system power). [FF 02.01—BPA]

The Definition is Unclear as to the Criteria and Process ARB Plans to Use When Determine if an Entity Should be Recognized as an "Asset Controlling Supplier." ARB has proposed modifying the definition of "asset-controlling supplier" in both the MRR and cap-and-trade rule, see MRR § 95102(a)(17); cap-and-trade rule § 95802(a)(13). The modifications would remove from the definition two retail providers in California, PacifiCorp and Sierra Pacific Power Company, leaving only one entity listed in the definition: the Bonneville Power Administration ("BPA"). However, it's not clear from the definition why these two entities no longer qualify as "asset-controlling suppliers," and why BPA does still qualify as an "asset-controlling supplier." Powerex requests that ARB clarify the criteria applied when determining whether an entity meets the definition of an "asset-controlling supplier," as well as provide transparency with respect to the assessment of the "asset-controlling supplier" intensity factor and clarify the process by which an entity is granted or assigned status as an "asset-controlling supplier." [FF 46.07—PX]

Powerex Recommends Revising References to "Asset Controlling Suppliers" Throughout the MRR to Allow for the Possibility That ARB will Recognize Additional Entities as "Asset Controlling Suppliers" in the Future. By removing PacifiCorp and Sierra Pacific Power Company from the definition of "asset-

controlling supplier" in both the MRR and the cap-and-trade rule, the definition has been changed from including a list of example "asset-controlling suppliers" to stating that "BPA is . . . an asset-controlling supplier." MRR § 95102(a)(17); cap-and-trade rule § 95802(a)(13). While Powerex interprets this statement to mean that BPA is just one example of an asset-controlling supplier, it could be read to require a modification to the definition every time ARB wants to recognize another asset-controlling supplier. To avoid having to modify a rule if and when ARB recognizes additional asset-controlling suppliers, Powerex recommends removing the second sentences of MRR Section 95102(a)(17) and cap-and-trade rule Section 95802(a)(13), or revising those sentences to read: "Bonneville Power Administration ("BPA") is one entity recognized by ARB as an asset-controlling supplier." [FF 46.08—PX]

In order to avoid having to modify the MRR if and when ARB recognizes additional asset-controlling suppliers, Powerex recommends that ARB revise Sections 95111(b)(3) and (f) of the MRR by replacing specific references to BPA with a generic reference to "asset-controlling suppliers." Specifically, the first sentence of subsection 95111(b)(3) should be revised to read as shown in our letter. [FF 46.09—PX]

Clarification is needed to determine what suppliers (other than BPA) would meet the definition of asset-controlling supplier. [FF 19.06—PGE]

Subsection 95111(a)(5), "Importing Electricity from Asset-Controlling Suppliers," would benefit from two clarifications. First, PG&E seeks confirmation that this section applies to Asset- Controlling Suppliers only and not to Buyers of energy from an Asset-Controlling Supplier. Second, as noted above in the definitions section, it is unclear whether any entity other than BPA would be considered an asset-controlling supplier. [FF 19.14—PGE]

ARB should adopt a single default emission factor for all unspecified purchases for calculating associated emissions. PacifiCorp supports ARB's adoption of a Western Interconnection default emission factor for unspecified purchases including purchases from MJRPs. However, PacifiCorp does not support ARB's proposal for a special unspecified emission factor for energy purchases from the Bonneville Power Administration (BPA). Under proposed §95111(b)(3), ARB would assign BPA a default system emission factor equal to 20 percent of the default emission factor for unspecified sources, i.e., an emission factor significantly lower than that applied to unspecified power in the rest of the Western Interconnection, regardless of whether it is accurate. Adopting a different emission factor for BPA fails to recognize the inherently interconnected nature of the Western Interconnection. In order to avoid significant unintended consequences, some of which are described below, the reporting rules must recognize that simply because a wholesale transaction originates from a particular balancing authority area it does not mean that the power was generated from resources within that balancing authority area. Establishing a

special emission factor for unspecified sources from one entity that is significantly discounted is likely to distort the western wholesale energy market. To avoid these risks, ARB should assign a single default emission factor for all unspecified power. [FF 39.01—PC]

Imported Electricity from Asset-Controlling Supplier: WPTF has previously raised a concern that the rules for asset-controlling supplies would provide opportunities for resource-shuffling of electricity sourced within BPA. To address this concern, the regulation should be revised so that electricity sourced from an asset-controlling supplier can only be attributed the emission rate of that supplier when the asset-controlling supplier is also the importer. Recommend changes to paragraph 95111(a)(5) as shown in letter, to address this. [FF 33.11—WPTF]

In order to avoid resource shuffling, the emissions of asset-controlling suppliers must be calculated when so indicated by the specified electricity provisions designed to reduce resource shuffling. [FF 55.12—SEU]

Response: See Response to D-10 regarding ARB recognition of asset-controlling suppliers. Regarding the concerns about BPA electricity and resource shuffling, see Response to Z-3. Regarding the concerns about the removal of multijurisdictional retail providers from the definition of asset-controlling suppliers, see Response to D-11.

P-19. Appropriate Default Emission Factor for Unspecified Sources

Comment: Although the Utilities have consistently advocated for regional default emission factors and continue to believe this would be a more appropriate approach, we believe CARB's change to the default emissions factor in the MRR is appropriate and support the proposed number if a single factor is to be used. The Utilities believe this revised value more accurately reflects the true default emissions from both within the WCI region and outside the WCI region. [FF 05.03--REU

The level of the default emission rate is not representative of marginal generation within the WECC. WPTF has previously raised a concern that the default emission rate, originally set at .435 MT of CO_2e/MWh would disadvantage cleaner, in-state resources. This concern has been heightened by the fact that the default rate has been lowered to .428 MT of CO_2e/MWh or 943 lbs/MWh in the PRA. WPTF‟s understanding is that this rate has been calculated using the Western Climate Initiative's ("WCI") Default Emission Tool and is intended to be representative of marginal generation within the WECC. Yet when the California Energy Commission analyzed the appropriate level for the State's Emission Performance Standard, they rejected a number higher than CARB‟s default rate because "almost no natural gas units (that are not combined cycles) operate at a heat rate of less than 8,590 Btu/kWhr." Based on this analysis, the California Public Utility Commission ultimately set the Emission Performance Standard at a level of 1100 lbs./MWh because that level is more representative of generation

within the WECC. Rather than use a generation-weighted average, CARB should instead use a capacity-weighted average. A capacity-weighted average would not be biased toward the emission rates of the more efficient resources, nor be subject to the vagaries of hydroelectric generation. Using the data in the WCI default emission rate calculator and the same definition for marginal resources, WPTF calculated a WECC-wide capacity-weighted emission average for 2008 of approximately .51 metric tons or 1127 lbs/MWh. This number is more representative of marginal generation in the WECC and consistent with California's Emissions Performance Standard. WPTF requests CARB to replace the default emission rate with one calculated on a capacity weighted average. Additionally CARB should monitor electricity imports and raise the default emission rate if there is evidence that high emission electricity is being imported as unspecified power. [FF 33.02—WPTF]

The default emissions factor for unspecified power imported into California is too low and would disfavor more efficient specified imports and in-State generating sources. Further detail is provided in attachment to letter. [FF30.02—Calpine]

Section 95111(b)(1) of the MRR sets the default emissions factor at 0.428 Metric Tons of CO_2e/MWh. LS Power believes that the current default emissions rate is set too low and will compromise CARB's GHG emissions goals. An emissions factor of 0.428 creates an incentive for any out-of-state power plant with an efficiency factor higher than 0.428 to enter into a transaction with a marketer so that it can report its emissions as unspecified. If CARB does not adopt the CEC and CPUC's emissions factor from the EPS, CARB should consider using a capacity-weighted average. A capacity-weighted average would not be biased toward the emission rates of the more efficient resources, nor be subject to the fluctuations in annual hydroelectric output. Using the data found in the WCI default emission rate calculator and the same definition for marginal resources, the Western Power Trading Forum (WPTF) has calculated a WECC-wide capacity weighted emission average for 2008 of approximately 0.51 metric tons or 1,127 lbs/MWh. LS Power believes that this number would be more representative of generation in the WECC and achieve greater consistency with California's EPS. In sum, LS Power requests that CARB adopt a capacity-weighted average, which will result in a default emissions factor that is much closer to the EPS. [FF C&T 135—LSP]

Response: ARB concluded that the default emission factor is set appropriately, as discussed in section VIII of the Staff Report. Emissions associated with imported electricity from unspecified sources are calculated using an objective and transparent method adopted by Western Climate Initiative Partners (WCI Default Emission Factor Calculator 2010). Commenters did not provide sufficient information to allow ARB to evaluate an alternative method based on capacity-weighted average. ARB plans to reevaluate the default emission factor prior to each compliance period to determine whether a regulatory amendment is justified to update the factor, based on updated data reported to the Energy

Information Administration. During reevaluation, ARB may consider the merits of this alternate approach.

A single emission factor was considered a better mechanism to account for GHG emissions from unspecified sources than different region-specific factors. Stakeholders had previously expressed concern that the latter may incentivize resource shuffling instead of reducing GHG emissions from electricity imported and consumed in California. See also Response to 0 regarding the appropriate default emission factor for unspecified sources.

P-20. Registration of Claims to Specified Sources

Comment: Requirements for Claims of Specified Sources of Imported Electricity and Associated Emissions, section 95111(g). The text seems to presume a one-to-one contractual or ownership relationship between the importer and the specified source. If a resource provides power to California through two or more importers, the text would require each importer to register the source. Instead, we recommend allowing either the resource operator/owner or the importer to register the source; other importers could then refer to the original registration.

The text seems to mix the requirements for specified source registration with the requirements for claiming a specified source. In our view, registration should be a one-off process, with updates as necessary. Claims to imported power from a specified source should be an annual process through importers‟ annual data reports. For example, designation of a specified source as a continuing or newly specified source should be a requirement for claims to a specified source in the annual data reports, not a requirement for specified source registration. We suggest that information relating to claims to specified sources be moved to the beginning of paragraph (9), and our comments on that paragraph reflect that. [FF 33.16a—WPTF]

Under this section, each importer is required to “register its anticipated specified sources with ARB prior to February 1 following each data year”. First, as a matter of clarity, it is ambiguous for which year the registration must occur - -the year just completed, or the year just beginning. We presume the most likely intent is for the year just completed. More importantly, in either case, such a registration is highly problematic, and the value to ARB is not obvious. We strongly recommend that no requirements be imposed to register “anticipated” sources, and instead, that ARB simply wait for the final report and review “actual” data. [FF 14.06—MSCG]

Delete the word “anticipated” in the Registration of Specified Sources since the action occurs following the end of the data year. Modify §95111(g)(1): Registration of Specified Sources. [FF 55.24—SEU]

Response: Section 95111(g) was modified to accommodate reporting requirements for the RPS adjustment, including a provision to allow for facility

registration information to be provided with the emissions data report and a 45 day reconciliation period subsequent to the report due date. The deadline to register facilities or units that directly deliver electricity to California remains February 1, to allow ARB sufficient time to calculate and publish the specified emission factors to facilitate timely reporting.

ARB views annual registration, by February 1 of the year each emissions data report is due, as necessary to support calculation of facility-specific emission factors prior to the reporting deadline. The date was extended from January 1 to February 1 to allow more time as requested by stakeholders. ARB uses the term "anticipated" sources to recognize that some sources may not be claimed in the final report.

ARB does not presume a one-to-one relationship between generating facilities and electricity importers. Because ARB must regulate each electricity importer separately, ARB must also require the necessary information from each. Operators of out-of-state electricity generating facilities are not within the scope of this regulation unless they are also an importer delivering electricity into California.

P-21. First POR Versus First POD

Comment: Reporting of Imported Electricity from an Unspecified Source. Under Section 95111(a)(3)(A) of the MRR, electric power utilities are required to report "[w]hether the first point of delivery is located in a linked jurisdiction published on the ARB Mandatory Reporting website." It would be more accurate to report the first point of receipt rather than the first point of delivery. This also would be consistent with the MRR's definition of "imported electricity" under Section 95102(a)(200): "electricity delivered from a point of receipt located outside the state of California, to the first point of delivery located inside the state of California" (emphasis added). [FF 46.13—PX]

With regard to the definition of the components of the formulas under "Calculating GHG emissions", there appear to be some inconsistencies of terminology that would benefit from standardization and consistent use. In particular, the use of "receipt" and "delivery" could be confusing. MSCG recommends that, when writing these explanations, the transaction that would be at the start of an e-Tag be referred to as a "receipt" and the transaction at the end of the e-Tag, a movement of power into California, be referred to as a "delivery". [FF 14.05—MSCG]

Response: ARB agrees with the comments and has made the suggested modification.

P-22. Workshop Needed

Comment: While Powerex appreciates the opportunity ARB has provided to comment on the latest changes to the Mandatory Reporting and cap-and-trade

rules, Powerex strongly encourages CARB to conduct a stakeholder workshop dedicated to the subject of imported electricity. Complex changes have been proposed under the 15-day rule modification process concerning resource shuffling, direct delivery of electricity, variable renewable resources, and replacement electricity; these changes will significantly alter the structure of reporting for electric power entities as well as the market for imported electricity. Such a workshop would enable ARB to clarify its intent with respect to the new concepts and for affected entities to provide further comments to help ensure that the programs function well. Since many of these issues are interwoven with both the Mandatory Reporting Rule and the cap-and-trade rule, the workshop ideally would cover both rules as they address imported electricity. In view of the overall timing ARB's implementation of the AB 32 Scoping Plan, Powerex strongly encourages ARB to conduct such workshop as soon as possible — preferably prior to the release of the planned second package of 15-day rule modifications. [FF 46.01—PX]

Response: ARB held a technical meeting on August 26, 2011 to discuss staff thinking and stakeholder suggestions for improvements, many of which are incorporated in the final MRR and cap-and-trade regulation. Staff will continue to work with stakeholders to assure successful implementation.

P-23. Tolling Agreement Definition

Comment: We do not believe that the first sentence of the definition of "Tolling Agreement", wherein a tolling agreement is described as renting a power plant from the owner is technically accurate. "Renting" implies a total takeover, including occupancy, and control, of the facilities. Tolling is more accurately viewed as a 'fee for service" business. [FF 14.03--MSCG]

Response: ARB worked with stakeholders who have tolling agreements with electricity generation facilities to adequately define this term for sole use within the definition of "generation providing entity (GPE)." Electricity importers or exporters who are GPEs have prevailing rights to claim specified electricity from a particular facility. Importers or exporters who are GPEs must provide additional data to ARB for the facilities they specify.

No change was made to the definition of "tolling agreement," since ARB believes "fee for service" arrangements also are clearly included within the definition of a "GPE," pursuant to section 95102(a) and provided below for reference. A "fee for service contract" is clearly "affiliated or contractually bound generation."

> Section 95102(a). "Generation providing entity" or "GPE" means a merchant selling energy from owned, affiliated, or contractually bound generation. For purposes of reporting delivered electricity pursuant to section 95111, a GPE is the PSE, operator, or scheduling coordinator with prevailing rights to claim electricity from a specified source. A facility or generating unit operator, full or partial owner, sole party to a tolling

agreement with the owner, or exclusive marketer is recognized by ARB as a generation providing entity.

ARB understands a "tolling agreement" describes an arrangement whereby the electricity purchaser supplies the fuel and receives the resulting power output of the generation. This arrangement, as defined, is clearly "affiliated or contractually bound generation."

P-24. Reporting Exported Electricity Emissions

Comment: Subsection 95111(a)(6), "Exported Electricity," states that emissions must be reported for exports. However, if the electricity is being exported from the CAISO grid, unit specific information is not currently available from CAISO. PG&E recommends the following edits: "Exported Electricity. The electric power entity must report exported electricity in MWh and, only if available, associated GHG emissions in MT of CO_2e, aggregated by each final point of delivery outside the state of California. [FF 19.15—PGE]

Response: ARB has modified section 95111(a)(6) to clarify that the GHG emissions of exports are reported as specified and unspecified, consistent with imported electricity.

P-25. "Specified Source" Definition Should not Require

Comment: The definition of "specified source" is too restrictive. The revised definition of "specified source" requires that "The electricity importer must have either full or partial ownership in the facility/unit or a written contract to procure electricity generated by that facility/unit." There are cases where renewable energy is imported into California by another entity on behalf of the entity that has the ownership in or contract with the generating facility. In order to prevent the assignment of unspecified electricity emissions to renewable energy from a specified California eligible renewable resource that is directly delivered into California through an intermediary, we suggest either reverting back to the original definition of "specified source", or amend the revised definition as provided in our comment letter. [FF 51.05a—LADWP]

Response: ARB did not make the requested change to the definition of "specified source." A valid claim to a specified source must meet the requirements in the definition as stated. Since the electricity importer is the regulated party, the importer must demonstrate a valid claim. For electricity that is not directly delivered, as defined pursuant to section 95102(a), the importer may claim an RPS adjustment. The final RPS adjustment provision in section 95111(b)(5) and section 95852(b)(4) of the cap-and-trade regulation addresses this concern. Under the conditions in section 95852(b)(4) of the cap-and-trade regulation, another entity may claim the RPS adjustment so that the compliance cost is not passed through to the retail provider who is complying with the RPS.

P-26. "Specified Source" and "Unspecified Source" Definitions Include both Imports and Exports

Comment: The definition of "specified source" should not be limited to electricity imports, since electricity exports may be from a specified source. [FF 51.05b—LADWP]

"Unspecified sources of electricity" should only refer to imported power. Section 95102(a)(328) defines "Unspecified sources of electricity." It should be clarified that this term refers only to imported power for purposes of the reporting regulation. "Unspecified source of electricity" or "unspecified source" means electricity generation originating outside California that cannot be matched to a specific facility or unit that generates electricity or matched to an asset-controlling supplier recognized by the ARB. [OP 06.05—SCPPA]

Response: ARB agrees and removed the reference to "imported" electricity from the definition of "specified source" in section 95102(a) to recognize that exported electricity also may be specified. ARB did not limit the definition of "unspecified source" to imports, since it also applies to exports.

P-27. Add Reporting Requirements to Monitor Cap-and-Trade Prohibition

Comment: The 15-day modifications impose new requirements in section 95892(f) of the cap-and-trade regulation to prohibit the use of allowances allocated to an electric distribution utility to be used to meet the compliance obligations of electricity sold into the California Independent System Operator (CAISO) markets. In order to monitor this prohibition, Publicly Owned Electric Utilities and Electric Cooperatives should be required to report sales into CAISO markets in Section 95111(c) of the MRR. Add §95111(c) (5) Publicly Owned Electric Utilities and Electric Cooperatives must report total annual electricity sales into California Independent System Operator markets for which they are the first deliverer. [FF 55.25—SEU]

Response: This suggestion would require additional reporting requirements and include a new group of regulated entities, electric cooperatives. ARB did not make the modification, since it is outside the scope of this rulemaking.

P-28. "Generation Providing Entity" Definition

Comment: The July 2011 Proposed Modifications define the phrase "generation providing entity" ("GPE") to include, for reporting purposes, "(a) facility or generating unit operator, full or partial owner, sole party to a tolling agreement with the owner, or exclusive marketer." SCE believes that a GPE should not have reporting or compliance obligations for in-state tolling agreements, but only for out-of-state tolling agreements. SCE requests that ARB provide clarification to this effect. [FF 37.01 SCE]

Response: The term "generation providing entity (GPE)" is not used in the cap-and-trade regulation. Pursuant to section 95811 of the cap-and-trade regulation,

covered entities are responsible for compliance. First deliverers of electricity are covered entities:

(1) Electricity generating facilities: the operator of an electricity generating facility located in California; or
(2) Electricity importers.

Pursuant to the MRR, a GPE does not have reporting requirements unless they first meet one of the following definitions:

- *facility operator* for electricity generating *facilities* located inside California,
- *electricity importer* for *imported electricity*, or
- *electricity exporter* for *exported electricity*.

The italicized terms above are defined pursuant to subsection 95102(a).

The defined term "GPE" is only used in the following context to describe an electricity importer who is a GPE for the specified facility. When electricity generated by a facility located outside California is directly delivered to California, and the electricity importer (1) is a Generation Providing Entity (GPE) defined pursuant to MRR subsection 95102(a) or (2) has a written power contract for electricity generated by the facility, the electricity importer must report the delivery as a specified import, pursuant to subsections 95111(a)(4) and 95111(g)(3). The electricity importer must register the specified source with ARB, pursuant to subsection 95111(g)(1), to receive a facility-specific emission factor calculated by the Executive Officer, pursuant to subsection 95111(b)(2).

P-29. Additional Reporting Requirements for Retail Providers not Multi-jurisdictional, Subsection 95111(c)(3)

Comment: The Utilities continue to assert that language needs to be inserted into this section to clearly articulate that this information is being submitted to CARB for informational purposes only, and that the reporting entity is not liable for the compliance obligation of these reported emissions if they are not brought into California. This provision, as it is currently proposed in the MRR, could apply to every natural gas fueled generator with a heat rate above 8,000 (Btu). The Utilities believe it is unrealistic to classify these generators as high GHG emitting facilities and that this was not CARB's intent with the provision. [FF 05.04—REU]

Section 95111(c)(3) appears to be intended to relate only to facilities or units located outside California in jurisdictions in which there is no cap-and-trade program linked to California's program. This should be clarified as shown in the comment letter. [FF 49.20—SCPPA]

Response: See Response to D-21 regarding additional requirements for retail providers, excluding multi-jurisdictional retail providers, concerning subsection 95111(c)(3).

ARB made the change requested by SCPPA to section 95111(c)(3), recognizing that only data for retail provider-owned facilities located in unlinked jurisdictions is needed for program monitoring.

P-30. Additional Requirements for Retail providers not Multi-jurisdictional, Subsection 95111(c)(4)

Comment: ARB should remove the requirement for retail providers to report electricity imported from specified and unspecified sources by other entities per Section 95111(c)(4). As a retail provider, SCE frequently purchases power from counterparties (such as marketers) with the specification that SCE will take delivery within its service territory in California. In such cases, SCE does not know from whom the counterparty has sourced this power, and whether any of the delivered electricity was imported into California. In fact, because the counterparty is likely selling from a portfolio of resources, even the counterparty may not be able to pinpoint the source, or whether the electricity it is selling to SCE was imported. Given the complex nature of wholesale electricity markets, it is very possible that the counterparty in such a transaction will be a reseller of power that it purchased from a third party. This counterparty may not have clear knowledge of the electricity importer's (i.e., the first jurisdictional deliverer) identity or if the electricity was indeed imported into California. Therefore, it will be extremely difficult, if not impossible, to require the counterparties to disclose whether they are selling imported electricity, much less whether the electricity was imported from specified or unspecified sources, and who imported it. Even if retail providers do have access to this information (e.g., in the form of NERC e-Tags), ARB should require the importers to report their import transactions to ARB directly rather than imposing this obligation on retail providers. [FF 37.06—SCE]

Response: See Response to D-22 regarding additional requirements for retail providers, excluding multi-jurisdictional retail providers, concerning subsection 95111(c)(4).

P-31. Transmission Losses and Default Emission Factor for Unspecified Sources

Comment: With respect to the default unspecified emissions factor, ARB has proposed changes in the calculation method and now has included a multiplier to account for transmission losses. It is unclear what impact this will have on the unspecified emissions factor, and whether this will cause the factor to increase or decrease. Metropolitan requests that ARB provide further explanation of this proposed change, and its impacts. [FF 13.06—MWDSC]

Response: See Response to D-13 regarding transmission losses and default emission factor for unspecified sources.

P-32. "Electric Power Entities" Definition

Comment: Section 95101(d) provides a list of entities under the heading, "Electric Power Entities." This term is important, and it is used in several places in the

Revised MRR. However, it is not included in section 95102, Definitions, in the Revised MRR. A definition of “electric power entities” should be included in section 95102 to make it easy to find the meaning of the term. A new section 95102(a)(99) should be inserted as follows: “Electric power entity” means an entity listed in section 95101(d). [OP 06.01—SCPPA]

Response: ARB disagrees with the commenter and believes the references are clear. As such, a separate definition of “Electric Power Entities” would be duplicative of the list in the applicability section (section 95101(d)).

P-33. Reporting by Point of Receipt

Comment: It is an unnecessary and excessive burden to require reporting of power transactions from first point of receipt. As SMUD has pointed out before, Section 95111(a)(2) continues to require reporting entities to report each import of delivered electricity according to the first point of receipt. Given that differing points of receipt from a particular state will have no difference in emissions factor, and given the interconnected nature of the electricity grid, this level of specificity does not provide useful information for estimating a Covered Entity’s emissions. Nevertheless, sorting and classifying transactions by this criterion creates additional reporting burden and cost for SMUD. SMUD would prefer a requirement that reports deliveries by the state of origin of the purchase. This change would reduce the reporting and verification burden while still providing necessary information for the Cap and Trade program to function.

Response: See Response to D-29 that discusses reporting imported electricity by first point of receipt.

P-34. Direct Delivery and Reporting Specified Sources

Comment: Adding “direct delivery of electricity” to 95111(a)(4) Imported Electricity from Specified Facilities or Units may have unintended impacts. By adding "direct delivery of electricity" to this section, will imported electricity have to meet both the definition of specified source, and the definition of "direct delivery of electricity", in order to be reported as a specified import? If an import from a generating facility meets the definition of “specified source” but does not also meet the definition of "direct delivery of electricity", does that mean it cannot be reported as a specified import, even though it was reported as a specified import in the past? This amendment may have unintended consequences, such as changing imports that used to be specified to unspecified, and needs to be fully vetted with stakeholders before being incorporated into the MRR. [FF 51.10—LADWP]

Response: Imported electricity must meet the criteria for direct delivery and the definition of a specified source. The criteria are intended to be restrictive and not allow some forms of specified reporting that occurred under the 2007 MRR.

P-35. "Retail Provider" Definition and Exclusion of Electric Cooperatives
Comment: SCE sees no reason to exclude electrical cooperatives from the definition of "Retail Provider." SCE recommends the deletion of the last sentence of this subsection. Electric cooperatives serve retail load in the same manner as any other load-serving entity, and therefore should be subject to the same regulatory obligations as other retail providers. [FF 37.02—SCE]

Response: See Response to Z-21 regarding exclusion of electric cooperatives from the definition of retail provider.

P-36. CO_2 versus CO_2e
Comment: Should emission factors for imported electricity be in units of CO_2 rather than CO_2e? The emission factors provided in section 95111(b) to calculate emissions for imported electricity are in units of CO_2e rather than CO_2. This is inconsistent with the "AB32 Cost of Implementation Fee Regulation", which bases fees for imported electricity on CO_2 emissions, not CO_2e emissions. For Electric Generating Facilities and Electricity Importers, the fee regulation relies on data reported under the MRR as the basis for assessing fees [fee regulation 95204(g)]. Fees for electricity delivered and electric generating facilities are calculated based on CO_2 emissions, not CO_2e emissions [fee regulation 95203(e) and (f)]. Was the default emission factor for unspecified electricity (0.428 MT CO_2e/MWh) calculated using CO_2 emissions data only? If so, the units should be lbs CO_2/MWh instead of lbs CO_2e/MWh. The unit should be CO_2e only if CH_4 and N_2O emissions were factored into this default emission factor. [FF 51.12—LADWP]

Response: GHG emissions accounting for the electricity sector includes CO_2, N_2O, and CH_4, measured as MT of CO_2e. Nitrous oxide and methane are included in the default emission factor for unspecified electricity. The Cost of Implementation Fee Regulation does not determine GHG emissions reporting protocol or set policy under the cap-and-trade program.

P-37. Exclude Metropolitan from Cap-and-Trade Regulation
Comment: Metropolitan urges ARB to create an additional reporting category under Section 95102 Definitions that applies to electricity importers and is separate from the classifications of electricity marketer and electric retail providers. Metropolitan does not take title to imported power for the express purpose of reselling for a profit; we are a public water agency that is consuming the imported electricity strictly for our own use. We request that ARB add the following reporting category and definition to the MRR PA: Importer/Non-Marketer or Importer/NM means a utility or entity, such as a public water agency, that purchases electricity generated outside the state of California solely to serve its own load. An Importer/NM does not market this electricity for purposes of resale and does not serve electric retail customers or electric end users. Importers/NM will report under the provisions of MRR, but will not have a

compliance obligation under the cap-and-trade regulation. [FF 13.01—MWDSC], [FF C&T 157—MWDSC]

Response: ARB did not make the suggested change. The requirement to report or comply pursuant to the cap-and-trade regulation is not based on whether the electric power entity makes a profit, serves electric retail customers, or is a public agency.

P-38. Reporting Responsibility
Comment: Subsection 95111(a). PG&E seeks confirmation that those entities with operational control as defined in section 95102(a)(271), would be responsible for reporting the emissions associated with: (1) in-state fossil-fired tolling agreements, and (2) hydroelectric facilities, as applicable. [FF 19.11—PGE]

Response: Section 95111(a) applies to electricity importers and exporters. The entity responsible for reporting is the electricity importer or electricity exporter, defined pursuant to section 95102(a).

P-39. Availability of Specified Source Emission Factors
Comment: Subsection 95111(b). To calculate GHGs from specified imported electricity, ARB notes that it will provide a unit specific emission factor for such delivery on its website. PG&E would like to know when this factor will be available. [FF 19.17—PGE]

Response: ARB will calculate the emission factors after the sources are registered and provide the calculated emission factors to reporting entities in advance of the reporting deadline. Registration is required by February 1 of the year the report is due, following the calendar year of emissions data collected.

P-40. Delivered Electricity
Comment: The use of the term “delivered electricity” is confusing and in places seems to require duplicative reporting. We therefore recommend that only the term “imported electricity‟ be used in paragraph 2 and throughout this section. Paragraph 2 should also reference the subsequent paragraphs, which provide more detailed guidance. [FF 33.08—WPTF]

Response: The term “delivered electricity” is defined pursuant to section 95102(a) and applies to imported, exported, or wheeled electricity. ARB did not make changes, as it believes the use of the term is clear.

P-41. Reporting Unspecified Sources
Comment: Recommend edits to paragraph 95111(a)(3) regarding "Unspecified Sources" to provide additional clarity. (3) Imported Electricity from Unspecified Sources. When reporting imported electricity from unspecified sources, the ~~electric power entity must aggregate electricity deliveries and associated GHG~~

~~emissions by first point of receipt. The~~ electric power entity also must report for each first point of receipt the following:

(A) Whether the first point of delivery is located in a linked jurisdiction published on the ARB Mandatory Reporting website;

(B) The total amount of electricity ~~from unspecified sources~~ as measured at the first point of delivery in California; and,

(C) ~~Separately report~~ The amount of any electricity that serves as replacement electricity for variable renewable resources; and

(D) GHG emissions, including those associated with transmission losses ~~must be reported~~ as required in section 95111(b). [FF 33.09—WPTF]

Response: ARB made the changes as suggested with the following exceptions. The requirement to separately report replacement electricity in 95111(a)(3)(C) was deleted. Section 95111(a)(3)(B) was considered sufficiently clear, so no change was made.

P-42. References to Section 95112 in Section 95111

Comment: Electricity Generating Units and Cogeneration Units: Paragraphs 95111(a)(11) and (12), pertaining to Electricity Generating Units and Cogeneration Facilities, are out of place in this section. We recommend moving them to section 95112. [FF 33.14—WPTF]

Response: ARB disagrees and did not make the suggested change. The purpose of these provisions, now numbered sections 95111(a)(10) and (11), is to alert Electric Power Entities to requirements in section 95112 when applicable, or if they choose to report voluntarily.

P-43. Delivered Electricity Reporting Requirements

Comment: The title of Subsection 95111 (a) is “General Requirements and Content for GHG Emissions Data Reports for Electricity Importers and Exporters.” The inclusion of the phrase “for Electricity Importers and Exporters” implies that the reporting requirements stated in subsection (a)(2), “Delivered Electricity,” would apply only to imports of electricity, notwithstanding the fact that the word “imported” was deleted in Subsection (a)(2). SCE requests that ARB clarify that the reporting requirements stated in subsection (a)(2), “Delivered Electricity,” apply only to imports of electricity. [FF 37.05—SCE]

Response: ARB clarified in section 95111(a)(2) that “the electric power entity must report imported, exported, and wheeled electricity….”

Q. Subarticle 2. Electricity Generation and Cogeneration – §95112

§95112. Electric Generation and Cogeneration

Q-1. Backpressure Steam Turbine Generator

Comment: Section 95112 Electricity generation and Cogeneration Units Backpressure Steam Generators. Under the current proposed modifications to section, Staff needs to be aware of the distinctions provided for backpressure steam generation. In food processing facilities, in particular tomato processing facilities, electricity produced in many industrial processing facilities is simply a byproduct of the process. A modern more efficient processing facility does not burn additional fuel to produce electricity, but captures energy that would otherwise be lost while supporting facility operations. This is the case with a backpressure steam turbine generator. According to the Department of Energy (DOE), "In the backpressure turbine configuration, the turbine does not consume steam. Instead, it simply reduces the pressure and energy content of steam that is subsequently exhausted into the process header. In essence, the turbo-generator serves the same steam function as a pressure-reducing valve (PRV) – it reduces steam pressure- but uses the pressure drop to produce highly valued electricity in addition to the low-pressure steam." [FF 45.02 CLFP]

Response: Under the current MRR and in the current reporting tool, certain fuels and emissions may be reported more than once at the facility and unit levels, but ARB does not double-count any fuels and emissions (as long as the reporters entered the information into the reporting tool correctly). This approach will continue under the revised regulation and reporting tool. Depending on whether the facility sells any generated electricity to their electric utility or used all the generated electricity on-site, it may be necessary to allocate part of the total fuel used to electricity generation. Allocating fuels to a certain equipment does not mean those fuels were burned at that piece of equipment. Consistent with ARB practices in implementing the current MRR, ARB will continue to work with reporting entities to ensure successful program implementation, including reporting information into the new reporting tool.

Q-2. Applicability of Renewable Generation Unit Reporting

Comment: Metropolitan noted that ARB has included additional reporting requirements in Section 95112 for basic information on renewable energy systems greater than 0.5 megawatts that are not otherwise exempted from reporting under Section 95101(f). This appears to apply only to Electricity Generation and Cogeneration Units, and not to the other reporting categories. Metropolitan requests ARB to confirm this understanding that any other reporting categories are exempt from this additional reporting. [FF 13.03 – MWDSC]

Response: Section 95112 covers all electricity generation and cogeneration units, including non-fuel-based renewable electricity generating units. Any facilities, regardless of their industry sectors, can operate an electricity

generating unit. Therefore, the requirements for reporting renewable electricity generation system greater than 0.5 megawatts apply to any reporters that are subject to MRR and that operate such systems. They are not limited to particular industry sectors. On the other hand, if the on-site renewable generating unit is owned and operated by a third-party operator, the reporting entities would report the electricity acquired from such unit as electricity purchased/acquired under 95104(d)(1).

Q-3. Support for Changes Made to Cogeneration Reporting Requirements
Comment: PG&E supports changes that staff has made on reporting for cogeneration as a good balance between collecting necessary information, being consistent with the cogeneration regulatory paradigm, and preserving the flexibility to pursue GHG emissions reductions from cogeneration or combined heat and power. PG&E commends the ARB staff on its commitment to working with stakeholders and incorporating comments. PG&E strongly supports staff's efforts to have cogeneration facilities report additional information on utilization of thermal energy, including a one-time obligation to report a block diagram showing disposition of thermal energy. This diagram and information on steam utilization will serve as a point of reference for staff assistance to reporters, verification and audits, and will provide information about unit aggregation and waste heat utilization. The changes in the definition and reporting of thermal energy should enable the ARB to better understand when thermal energy is being utilized rather than being vented or discharged without use. The addition of other facility identification information will enable the ARB and verifiers to cross check information reported to the ARB with information reported to the EIA, FERC, and the CEC. In sum, the changes in the 95102, 95104, and 95112 better align the ARB Reporting Regulation with the QF/CHP Settlement and FERC regulations and provide a better starting point on understanding how thermal energy is actually used. [FF 19.18 – PGE]

Response: The comment does not seek any additional modifications. ARB appreciates the commenter's support of ARB's efforts in developing reporting requirements for cogeneration units.

Q-4. Reporting of Complete Energy Balance
Comment: CARB intends to modify Section 95112 (Electricity Generation and Cogeneration) to require a complete energy balance around both the facility and unit levels: At the facility level, the additional reporting requirements include estimates of electricity purchased, destined for the grid, sold to particular end-users, and used by other on-site industrial processes and operations, as well as thermal energy that is purchased, and generated thermal energy provided or sold to an end-user, used to support power generation, or used for other onsite industrial processes and heating/cooling applications (§95112(a)). At the unit level, reporters would provide electricity net generation and gross generation, and thermal energy including total thermal output (§95112(b)). This is an excessive degree of information and unnecessary to characterize the GHG

emissions from a facility for either the purposes of the MRR or any potential cap-and-trade program. This would particularly be the case for cogeneration located at refineries. While CARB ostensibly requires this information in support of cap-and-trade, a complete energy balance is no more necessary to accomplish this task than requiring a complete mass balance around the refinery in order to prepare a criteria pollutant emission inventory. Valero requests that this proposed modification be eliminated from the final rule as it will only increase the regulatory burden without providing meaningful additional data to the inventory process. [FF 23.01 – VC]

Response: Sections 95112(a) and (b) apply only to generated energy produced by on-site electricity generating units, and as a clarification, these requirements by themselves do not constitute a complete energy balance. The revised regulation no longer retains the requirements for distributing emissions between generated electricity and cogeneration-generated thermal energy that was required by section 95112(b) of the 2007 regulation. In order to support future decisions related to carbon cost distribution among the covered entities, ARB believes it is still necessary to collect sufficient data for allocating emissions to different entities, such as the facility itself or their electricity customers or thermal host. In addition, a complete facility energy balance is essential for understanding how facilities utilize and waste energy. It also provides needed data to support other energy efficiency and combined heat and power programs. As such, ARB declines to make the requested modifications.

Q-5. Request for Guidance on Reporting of Steam Turbine Generators
Comment: In 95102 (a)(72), ARB expanded the definition of "cogeneration" to include steam turbine generators (STG). However, it is not clear how the requirements in Section 95112 should be applied to STGs. For example, 95112(b)(4) requires reporting of fuel consumption by fuel type for each electricity generating unit. It is not clear how this requirement would apply to a STG that does not consume fuel directly. WSPA recommends that ARB provide an example of how to report the information required in 95112 for steam turbine generators (STG). [FF 11.49 – WSPA]

Response: Operators of steam turbine generators would enter information into the reporting tool differently depending on the way the facility is set up. The heat input into the steam turbine generator must be reported either under section 95112(b)(4) as fuel "allocated" to the steam turbine generator or under section 95112(b)(8) as other steam used for electricity generation. Allocation of fuel to certain equipment does not necessary mean that fuels are directly combusted at that equipment, and operators may use heat input (in MMBtu) to proportionally allocate the total fuel consumed in the system to the individual equipment. If the steam turbine generator is a part of a cogeneration system, the operator may aggregate the steam turbine generator and other fuel combustion equipment into one system, and report all the energy input and output as a system, without needing to report the fuel use by steam turbine generator individually. Additional

guidance and examples will be provided with the reporting tool to assist reporting of steam turbine generators.

R. Subarticle 2. Petroleum Refineries and Hydrogen Production §95113 – §95114

§95113. Petroleum Refineries

No comments were received on section 95113.

§95114. Hydrogen Production

R-1. Flare Equations

Comment: In our December 15, 2010 comment letter, WSPA recommended ARB revised Section 95113(d) to allow facilities to report CO_2 emissions from normal flaring events that are unable to use equation Y-1 or Y-2, by following 40 CFR 98.253 (b)(iii)(B) and using equation Y-3 per 40 CFR 98.253(b)(iii)(C). WSPA again requests ARB revise Section 95113(d) and allow the ability to use equation Y-3 for normal flaring events. [FF 11.30 – WSPA]

Response: Equation Y-3 uses a default emission factor for flare emissions that would not provide accurate and reliable data for the cap-and-trade program. The required flare methodologies require reporters to measure either the carbon content or HHV of materials sent to the flare during periods of normal operation. For start-up, shut-down and malfunction flare emissions the ARB regulation allows reporters to use engineering calculation and/or process knowledge to determine emissions.

R-2. Missing Data – Refineries and Hydrogen Plants

Comment: If the analytical data capture rate is at least 80 percent but not at least 90 percent for the data year, the operator must substitute each missing value with the highest quality assure value recorded for the parameter during the given data year, as well as the two previous data years. WSPA recommends that ARB allow the missing data procedures to be the same as EPA: Look at the average of the value before and after. It is likely that the missing data is periodic and not one long stretch of missing data. The best data would be similar to that required in 95113(k)(2)(A) or the EPA procedure described above. [FF 11.51 – WSPA]

Response: Please see Response to H-11.

R-3. GHG Emissions From Hydrogen Plants to be Reported Separately

Comment: Process Emissions from Refinery Hydrogen Production Must be Reported Separately from Overall Stationary Combustion Emissions – The proposed MRR language does not make clear that process GHG emissions from

in-house hydrogen plants are to be reported separately from those resulting from overall stationary combustion. Proposed changes to the MRR seem to address the need for separation in reporting of GHG emissions from refinery hydrogen plants and overall refinery stationary combustion emissions by requiring that reporting entities follow U.S. EPA MRR as set forth in 40 CFR §98.250-258. Specifically, 40 CFR 0§98.252(i) directs refineries to follow calculation methodologies, monitoring and QA/QC methods, missing data procedures, reporting requirements, and recordkeeping requirements for hydrogen production (40 CFR Part 98 Subpart P). An additional section should be included in CARB's MRR that clarifies that GHG emissions and output associated with refinery hydrogen production must be reported separately under the new rule. The recently released guidance document on on-line reporting should also be revised accordingly. [FF 27.02 – AP]

Response: Section 95114 has been modified to require that GHG emissions and output associated with hydrogen production must be reported separately from other emissions associated with a petroleum refinery. ARB is uncertain which guidance document the commenter is referring to.

R-4. Adopt U.S. EPA Requirements for Hydrogen Plants

Comment: ARB should adopt and incorporate by reference the provisions of EPA's GHG Mandatory Reporting Rule with respect to calculating and monitoring GHG emissions from hydrogen production facilities, particularly the provisions related to averaging methods for fuel/feedstock characterization and replacement of missing data. The burden imposed by daily sampling and analysis of fuels and feedstocks would greatly exceed the benefits of such a program. Because manufacturers require consistency in their fuel and feedstocks in order to run a reliable plant, the carbon content of these inputs varies little from day to day. EPA's sampling frequency will provide a sufficient basis for calculating emissions and benchmarks. [FF 38.05 – ACCIG]

Response: ARB believes the daily sampling requirement is important to ensure equitable treatment for California's hydrogen plants, is important when fuels and feedstocks can vary significantly in carbon content, and should not represent a change from current GHG monitoring requirements at these plants in California. The MRR permits these daily samples to be combined into a weekly analysis for liquid and solid fuels/feedstocks. Flexibility has also been added to allow a monthly analysis for standardized fuels and feedstocks, as specified in Table 1 of Section 95115. For these reasons, ARB declines to make the requested modification.

R-5. Adopt U.S. EPA Reporting Requirements for Hydrogen Production Facilities

Comment: ARB should adopt and incorporate by reference the provisions of EPA's GHG Mandatory Reporting Rule with respect to calculating and monitoring GHG emissions from hydrogen production facilities. Sections 95114(d) and (e) of the proposed MRR require daily sampling and analysis of all fuels and

feedstocks except natural gas. The burden imposed by daily sampling and analysis would greatly exceed the benefits of such a program. Because manufacturers require consistency in their fuel and feedstocks in order to run a reliable plant, the carbon content of these inputs varies little from day to day. The sampling frequency required by EPA's MRR will provide a sufficient basis for calculating emissions and benchmarks. ARB's proposed additions to the monitoring requirements will impose unnecessary costs that will not provide any additional benefit to ARB or aid in implementing AB 32's objectives. ARB should revise Section 95114 of the MRR by adopting and incorporating by reference the provisions of EPA's GHG Mandatory Reporting Rule with respect to calculating and monitoring GHG emissions from hydrogen production facilities (§ 98.163(b)(1) and § 98.164(b)(2) in the EPA MRR), and delete the proposed language in sections 95114(d) and (e). [FF 38.05 – ACCIG , FF C&T 125.03 – ACCIG]

Response: See Response to R-4. Because of the many and varied fuels and feedstocks used by hydrogen producers, it is essential that the composition of these fuels and feedstocks be accurately characterized. ARB has allowed relaxed sampling requirements for natural gas, and in the case of gaseous and solid fuels, a provision has been included that allows for collection of composite samples for analysis. ARB believes that this approach provides accurate fuel composition data while significantly reducing sample analysis time and costs for the reporter.

R-6. Expand Definition to Include All Gaseous Hydrogen Production Facilities
Comment: The definition of the Hydrogen Production Source Category in section 95114 should be expanded to include all gaseous hydrogen production facilities. [FF C&T 125.01 – ACCIG]

Response: Section 95114(a) has been revised to define the hydrogen production source category in the same manner as U.S. EPA. This includes both refiner and merchant party hydrogen production.

R-7. Hydrogen Data Production Benchmark and Data Collection
Comment: ARB has proposed to collect data from all facilities and exclude the Aggregation of Units of different source categories, as stated in § 95114 and § 95115 of the "Proposed Amendments to the Regulations for the Mandatory Reporting of Greenhouse Gas Emissions." The Panel encourages ARB to collect this information and incorporate the data reported from all facilities into the product benchmark as soon as possible. ARB should also clarify references to hydrogen production and industrial gas production facilities throughout its various draft regulations and supporting documents (Example, Table 9.1. Page A-114) so that it is clear that the allocation benchmarks apply to all gaseous hydrogen production facilities. Likewise, the definition of the Hydrogen Production Source Category in §95114 should be expanded to include all gaseous hydrogen production facilities. [FF C&T 125.02 – ACCIG]

Response: The regulation does place some limitation on aggregation to ensure benchmarking and other requirements of the cap-and-trade regulation can be supported fairly. The higher resolution or increased subdivision of the data in these cases should assist rather than limit fair application by source category.

R-8. Track Hydrogen Produced as Transportation Fuel Versus Other Uses
Comment: Proposed Changes to the MRR Do Not Require Reporting of Hydrogen for Use as a Transportation Fuel – To avoid penalizing hydrogen as an alternative fuel for the petroleum-dominated transportation sector through subjecting all hydrogen production to cap and trade, CARB needs to carefully track hydrogen produced for use as a transportation fuel versus hydrogen produced for industrial applications by including a specific reporting obligation in the MRR and then considering exempting this hydrogen from the cap and trade program. Since all hydrogen production, regardless of the ultimate hydrogen use, falls under the cap and trade program, hydrogen transportation infrastructure will be burdened by an early penalty imposed on the hydrogen produced for use as a transportation fuel. As also stated in our comments on the proposed cap and trade modifications, Air Products believes that this hydrogen should be exempt from a compliance obligation during the first compliance period, consistent with the absence of a compliance obligation imposed on fossil fuel-based transportation fuels. Alternately, CARB could make an allowance allocation equal to the emissions associated with the amount of such hydrogen produced and sold as transportation fuel. Air Products believes that the MRR language needs to require reporting of the amount of hydrogen that is produced for use as a transportation fuel. This will allow CARB to carefully track and collect the necessary data to modify the Cap and Trade Regulation to ensure the proper treatment of hydrogen used as a transportation fuel. [FF 27.03 – AP]

Response: ~~Section 95114(g) requires that the operator report the amount of hydrogen produced and sold as a transportation fuel, which allows separate tracking of the two hydrogen sources~~. The originally proposed amendments to the final modified MRR included this reporting requirement as the final sentence in section 95114(g). This requirement is also in the currently applicable regulation, but some operators have indicated they are unaware of the final disposition of hydrogen sold (hence the phrase now included, “if known”).

S. Subarticle 2. Stationary Fuel Combustion and Other Industrial Sources §95115 – §95120

§95115. Stationary Fuel Combustion Sources

S-1. Units Change for Product Data
Comment: Mandatory reporting regulations: Subchapter 10, Article 2, Subarticle 2, §95115(m)(3). Units should be changed from “the amount of plaster board

produced" to "the amount of stucco used to produce saleable plasterboard". [FF 03.01 – GA]

Response: This change provides additional clarity and the regulation has been modified accordingly, including adding a new definition for "stucco."

S-2. Default Values for Natural Gas Emissions Estimates

Comment: Comment on Section 95115 Table 1 that does not list natural gas: Table 1 limits the fuels for which Tier 1 methodology can be used for CO_2 emission estimates. However, Table 1 does not appear to apply for CH_4 and N_2O emission estimates; thus, for fuels listed in Table C-2 of 40 CFR 98 Subpart C but not in Table 1 (e.g., natural gas), it would appear that CH_4 and N_2O emissions can be estimated using Tier 1 estimates but CO_2 must be estimated using a higher tier methodology. This will create differences between CARB and EPA reporting, and unnecessarily complicate calculations. SEU has two alternative recommendations: Preferred alternative: Remove Table 1 from the regulation and directly reference 40 CFR 98 Subpart C. Alternate: Natural gas should be added to Table 1 for consistency with 40 CFR 98 Subpart C reporting. [FF 55.27 – SEU]

Response: For most natural gas, ARB requirements do not differ from U.S. EPA requirements. Only when natural gas is outside of pipeline quality (as defined in section 95102) does ARB require natural gas to be tested for carbon content for CO_2 emissions estimation. "Pipeline quality" was defined consistent with WCI, which found that use of Tier 1 and Tier 2 methods for gas outside this composition may cause significant errors in CO_2 estimation. The regulation includes an exception in section 92122(b)(5) that allow LDCs to use default emission factors for up to 3% of their total gas volume outside the HHV range of 970-1100. For determining CH_4 and N_2O from natural gas, ARB's reporting requirements are identical to federal reporting requirements, as the commenter indicates.

S-3. Use of Default Factors for Consistent Fuels

Comment: Add the following sentence because previous testing has shown these values to be very consistent over time. "For specific cases where fuel biogenic fraction data has been consistent based on a minimum of one year of monthly data, ARB will consider removing the mandate for ongoing sampling and providing a default value instead, on receiving a documented request from affected entities." [FF 12.05 – CSCME]

Response: Staff reviewed data provided by this commenter on the composition of tire fuels, and found the carbon content too variable to allow used of a default emission factor. Staff believes continued sampling is necessary to provide sufficient accuracy to support the cap-and-trade regulation. This approach is also consistent with WCI Essential Requirements.

S-4. Clarify Requirements When CEMS Data Used

Comment: Add the following sentence: "Fuel use monitoring devices for units covered under this paragraph are exempt from the provisions of 95103(k)." [FF 12.06 – CSCME]

Response: This suggestion provides a reiteration of the existing exemption for CEMS data provided in section 95103(k). However, to provide clarity, we repeated the exclusion in section 95115(g) as suggested.

S-5. Reporting of Pilot Emissions

Comment: The inclusion of reporting pilot emissions is a departure from federal reporting requirements and it is unclear why such a departure is necessary, particularly when there has been recognition of ARB of the importance of harmonizing with the U.S. EPA repotting regulation. Our pilot lights are only on very briefly prior to the start-up of our boilers and duct burner (for seconds or perhaps up to a minute). The burden of inclusion of such pilot light emissions significantly outweighs the benefit of inclusion. Therefore we request that an exemption be added to Section 95115(i) that provides an exemption for non-continuous pilot light operations. [FF 40.01 – UA]

Response: ARB has included pilot light emissions consistent with WCI essential reporting requirements. In response to comments, however, the regulation was modified to require the reporting of pilot lights that operate 300 hours or more per year, which should exclude the reporting of pilot lights that are only used intermittently or for startup.

S-6. Pilot Light Emissions Reporting

Comment: Section 95115(i) indicates that pilot light emissions should also be calculated and included in the emissions report. WSPA believes clarification should be included that emissions for pilots need not be reported separately but may be aggregated as allowed by 95115(h) and if aggregated, they should not be required to meet calibration requirements separately. Recommendation: Modify Section 95115 as follows: *Pilot Lights.* Notwithstanding the exclusion of pilot lights from this source category in 40 CFR §98.30(d), the operator must include emissions from pilot lights in the emissions data report. The operator may apply appropriate methods from 40 CFR §98.33 or engineering methods to calculate these emissions when pilot lights are un-metered. Un-metered pilot lights are not subject to the measurement device calibration requirements of section 95103, but pilot light emissions calculations are subject to verification. Pilot light emissions may be aggregated as allowed in section 95115(h). Aggregated pilot lights are not subject to separate calibration or verification requirements. [FF 11.31 – WSPA]

Response: The regulation has been modified in response to this comment. Section 95115(i) states that pilot lights are not subject to measurement device calibration requirements, and may be aggregated when there is a common fuel

source. However, to ensure accurate data, ARB has maintained the verification requirement for pilot light emissions.

S-7. Pilot Light *De Minimis* Reporting

Comment: In section 95115(i), CARB would require quantification of GHG emissions from pilot lights (we note that the Federal MRR rule does not require this). CARB states that pilots can be a significant source of GHG emissions and consequently a potential source of emission reductions. Valero contends that only a small minority of the very largest flares will have GHG emissions from pilot lights above the de minimis threshold. We recommend that CARB allow application of the existing de minimis threshold as the deciding factor for reporting these emissions, rather than automatically requiring the reporting of such small sources routinely. The inclusion of such small sources in most cases is immaterial to the verifiable accuracy of the GHG report and thus should be at the option of the reporter. [FF 23.03 – VC]

Response: In response to the comment, language has been added to clarify that pilot lights may be reported as *de minimis* consistent with the requirements of section 95103(i). The regulation was also modified to require the reporting of pilot lights when operated 300 hours or more per year. This excludes the reporting of pilot lights that are only used intermittently or for startup.

S-8. Allow Use of Existing Missing Data Provisions for 2011 Data

Comment: For 2011 data section 951151(l) says missing data must be substituted according to the requirements of 40CFR98. WSPA recommends that ARB allow the continued use of the current ARB missing data procedures for 2011 data.[FF 11.54 – WSPA]

Response: The missing data procedures in the current ARB GHG reporting regulation are very limited. ARB believes the U.S. EPA procedures are most appropriate for emissions monitored in 2011 since most operators will have monitored 2011 emissions consistent with U.S. EPA requirements. The more complete procedures in the modified MRR will be applicable in subsequent reporting years.

S-9. Unit Aggregation Between Source Categories

Comment: Within section 95115 (Stationary Fuel Combustion Sources), CARB is proposing that allocations cannot be mixed between categories of sources (95115(h)). The example provided is that free allowances to refinery owned/operated hydrogen plants are not interchangeable with the refinery proper. Valero contends that this approach: contains significant logistical issues in order to keep separate accounts, solely to track allowances for different units within the refinery, and; will significantly limit flexibility within our own operations. It is critical to the overall success of any GHG management program to adopt the principles of simplicity and flexibility. The proposed revision will significantly hamper industries' efforts in this regard if CARB is to begin segregating

operations within a site for GHG allowances. While the proposed approach may simplify accounting for 3rd party hydrogen plants, CARB must provide an exemption from this approach to similar source categories that are owned, operated, and/or contiguous to the same parent entity. [FF 23.02 – VC]

Response: Section 95115(h) provides instruction for unit aggregation and helps simplify and streamline reporting. It does not address allocations. Comparing to the options available to facility operators under the current MRR, the revised MRR is more closely aligned with the U.S. EPA regulation (40 CFR 98.36(c)) and gives reporters more options in aggregating individual units.

S-10. Calculating Biomass Emissions from Subpart D Units

Comment: ARB should clarify procedures for calculating CO_2 emissions from combustion of biomass-derived fuels at Subpart D electricity generation facilities reporting under 40 CFR Part 75. Section 95103(j) provides that operators of facilities must separately identify, calculate, and report all direct emissions of CO_2 resulting from the combustion of biomass-derived fuels as specified in Section 95115. Although not stated explicitly in the rule language, SMUD understands this to include electricity generation sources subject to Subpart D of 40 CFR Part 98. This understanding is supported by the fact that Section 95112, Electricity Generation and Cogeneration Units, only includes procedures for calculating CO_2 from fossil fuel combustion in 95112(c), while the former provisions in 95112(e) for biomass emissions for units reporting under 40 CFR Part 75 were removed from the rule language. As such, for electricity generation and cogeneration units, Section 95115 now provides the procedures for calculating emissions from combustion of biomass derived fuels. Subparagraph (e)(4) provides in pertinent part, “When calculating emissions from a biomethane and natural gas mixture using Tier 4, the reporting entity must calculate the biomethane emissions as described in subparagraph (3) of this section…”, which employs the Tier 2 method from 40 CFR §98.33(a)(2). This is a problem for operators of Subpart D facilities that do not use a Tier 4 equivalent method to measure CO_2.5 The problem is easily solved by revising this language to acknowledge other, approved CO_2 reporting methods in USEPA regulations under 40 CFR Part 75. SMUD recommends modifying subparagraph (e)(4) as follows: [Add text in red] (4) When calculating emissions from a biomethane and natural gas mixture using Tier 4, or other method to calculate emissions under 40 CFR Part 75 for facilities subject to Subpart D of 40 CFR Part 98, the reporting entity must calculate the biomethane emissions as described in subparagraph (3) of this section, with the remainder of emissions being natural gas emissions. Subparagraph (e)(5) provides in pertinent part, “When calculating emissions from a biogas and natural gas mixture using Tier 4, the reporting entity must calculate biogas emissions using a Tier 3 method as described in 40 CFR §98.33(a)(3) …” This is a problem for operators of Subpart D facilities that do not use a Tier 4 equivalent method to measure CO_2.5 The problem is easily solved by revising this language to acknowledge other, approved CO_2 reporting methods in the USEPA regulations under 40 CFR Part 75. Thus, SMUD recommends modifying subparagraph (e)(5)

as follows: [Add text in red] (5) When calculating emissions from co-firing or a biogas and natural gas mixture using Tier 4, or other method to calculate emissions under 40 CFR Part 75 for facilities subject to Subpart D of 40 CFR Part 98, the reporting entity must calculate biogas emissions using a Tier 3 method as described in 40 CFR §98.33(a)(3), with the remainder of emissions being natural gas emissions. [FF 25.06 – SMUD]

Response: Section 95115(e) has been revised to clarify that operators of Subpart D units can also use the procedure in section 95115(e) to calculate biomass emissions.

S-11. Calculating Biomethane Emissions

Comment: Comment on Section 95115(e): Per the provisions of Subarticle 4, "chain of title" is the verification mechanism. This regulation appears to require verification that the biomethane molecules are actually delivered to the facility. This is not possible as neither the operator nor the verifier can differentiate the individual qualities of mixed fuels sampled and measured at the facility meter. Modify §95115(e)(3) When calculating emissions from a biomethane and natural gas mixture using a Tier 2 method, the operator must calculate emissions based on verifiable contractual deliveries of biomethane from an upstream entity, using the natural gas emission factor in the following equations: $mmBTU_{biomethane}$ = The total verifiable biomethane from an upstream entity for the reporting year based on contractual deliveries. [FF 55.26 - SEU]

Response: ARB understands that the actual biomethane molecules will not be delivered to the reporting entity. Verification is based on the contractual deliveries of the biomethane as stated in the text of section 95105(e)(3).

§95116 to 95120. Other Industrial Sectors: Glass Production, Lime Manufacturing, Nitric Acid Production, Pulp and Paper Production, Iron and Steel Production

No comments were received on sections 95116, 95117, 95118, 95119, and 95120.

T. Subarticle 2. Fuel and Carbon Dioxide Suppliers §95121 – §95123

§95121. Supppliers of Transportation Fuels

T-1. Assessment of Compliance Obligation

Comment: Emissions information reported by the refineries, enterers and terminal position holders will result in double counting. This would, in turn, result in double counting of compliance obligations under the cap and trade. The cap

and trade regulation (Section 95856(e)(1) requires the verified emissions equal the triennial compliance obligation. WSPA believes that language should be written into the MRR to specify that only the emissions associated with transportation fuels reported by terminal position holders, enterers who bring fuel into California outside of the bulk transfer/terminal system, and fuel supplied by refiners at an onsite rack will be included in verified emission report used to assess an entity's compliance obligation. [FF 11.26 – WSPA]

Response: Compliance obligations are specified in the cap-and-trade regulation. However, changes made to both the MRR in sections 95101(c)(2) and 95121 and cap-and-trade regulation in section 95852(d) will limit the compliance obligation for enterers to fuel delivered outside the bulk transfer/terminal system. These changes should address the commenter's concern about double-counting.

T-2. Double-Counting of Enterers

Comment: Sec 95121(d)(4) requires all enterers of fossil-derived transportation fuel to report annual quantity of blendstock, distillate fuel oil, or biomass derived fuel. This can result in double counting of transportation fuel delivered to bulk transfer/terminal system. WSPA recommends that the requirement be clarified so that the reporting requirements apply to only "enterers who bring fuel into California outside the bulk transfer/terminal system". [FF 11.28 – WSPA]

Response: ARB agrees and changes have been made to the MRR section 95101(c)(2) and 95121 to limit reporting to enterers who supply fuel outside the bulk transfer/terminal system.

T-3. Enterer Reporting Requirements

Comment: WSPA believes that the requirement for enterers who deliver fuel to the bulk transfer/terminal system under section 95121(d)(5) is not necessary to determine compliance obligation for cap and trade and recommend that the paragraph be deleted. If ARB believes that this information is necessary for other reasons, the required information should be a) limited to name of entity receiving the fuel, the location and the actual delivered volume and 2) be made available to the verifiers and ARB but not be required to be submitted or verified. [FF 11.29 – WSPA]

Response: See Responses to T-1 and T-2.

T-4. Double-Counting Enterers

Comment: Section 95121(a)(2) requires refiners and positions holders to report fuels that will result in double counting of compliance obligation under the cap and trade regulation. [FF 11.55 – WSPA]

Response: See Responses to T-1 and T-2.

T-5. Enterer Reporting Requirements

Comment: 95121(d)(4) requires all enterers of fossil-derived transportation fuel to report annual quantity of blendstock, distillate fuel oil, or biomass derived fuel. This can result in double counting of transportation fuel delivered to bulk transfer/terminal system. WSPA recommends that the requirement be clarified so that the reporting requirements apply to only "enterers who bring fuel into California outside the bulk transfer/terminal system". [FF 11.56 – WSPA]

Response: See Responses to T-1 and T-2.

T-6. Enterer Reporting Requirements

Comment: WSPA believes that the requirement for enterers who deliver fuel to the bulk transfer/terminal system under section 95121(d)(5) is not necessary to determine compliance obligation for cap and trade and recommend that the paragraph be deleted. If ARB believes that this information is necessary for other reasons, the required information should be a) limited to name of entity receiving the fuel, the location and the actual delivered volume and 2) be made available to the verifiers and ARB but not be required to be submitted or verified. [FF 11.57 – WSPA]

Response: ARB agrees. Based on changes to the reporting requirements that limit reporting to enterers outside the bulk transfer/terminal system, this information is no longer required.

T-7. Double Counting of Enterers

Comment: WSPA request that provisions be added to insure that transportation fuels info reported by refineries, enterers and terminal position holders are not double-counted. [FF 11.05 – WSPA]

Response: See Responses to T-1 and T-2.

T-8. Best Available Reporting until 2013

Comment: WSPA requests that transportation fuels data be based on best-available info until 2013 as new monitoring equipment and/or collection systems must be installed. [FF 11.06 – WSPA]

Response: ARB has modified section 95103(h) to allow any entity that does not have reporting requirements under 40 CFR Part 98 to use best available methods for 2011 emissions year data.

T-9. Best Available Reporting until 2013

Comment: Section 95121 (b)(3) requires reporting of CH_4 and N_2O emissions using Equation C-8 and Table C-2 as described in 40CFR98.33(c)(1) for the reported transportation fuel. Use of CO_2 emissions default factors in Table MM-1 represent the CO_2 emissions that would result from the complete combustion. With complete combustion, there would be no CH_4. Reporting of CH_4 would

result in erroneous additional reporting of GHG emissions. Additionally, EPA's table C-2 was established for reporting emissions from stationary sources which would not have the same combustion controls and catalytic treatment systems as vehicles. [FF 11.27 – WSPA]

Response: The commenter is correct that stationary combustion emission methodologies assume complete combustion. CH_4 is emitted in very small amounts from the stationary combustion of all fuels, so the assumption of complete combustion and the reporting of CH_4 emissions does result in a very slight over-estimation of emissions. Reporting of CH_4 and N_2O is standard procedure for all GHG accounting systems, and this very slight over-estimation is applied to all stationary fuel combustion reporters. $CH_4CH_4N_2O$WSPA is also correct that the emission factors from table C-2 are for stationary sources. In response to comments, ARB has developed CH_4 and N_2O emission factors for mobile sources and included these in section 95121.

T-10. Eliminate Reporting of CH_4 and N_2O for Transportation Fuels
Comment: Section 95121 (b)(3) requires reporting of CH_4 and N_2O emissions using Equation C-8 and Table C-2 as described in 40CFR98.33(c)(1) for the reported transportation fuel. Use of CO_2 emissions default factors in Table MM-1 represent the CO_2 emissions that would result from the complete combustion. With complete combustion, there would be no CH_4. Reporting of CH_4 would result in erroneous additional reporting of GHG emissions. Additionally, EPA's table C-2 was established for reporting emissions from stationary sources which would not have the same combustion controls and catalytic treatment systems as vehicles. Recommendation: WSPA recommends that CH_4 and N_2O reporting for transportation fuel be deleted. [FF 11.27 – WSPA]

Response: The commenter is correct that stationary combustion emission methodologies assume complete combustion. However, CH_4 is emitted in very small amounts from the stationary combustion of all fuels. While the assumption of complete combustion and the reporting of CH_4 emissions does result in a slight over estimation of emissions, the elimination of reporting for combustion CH_4 would result in a much larger underestimation of stationary combustion emissions because of the much larger GWP of methane (21 versus 1 for CO_2). Nitrous oxide is also emitted from the stationary combustion of fuels, and emissions are more a function of the type of combustion device rather than the fuel combusted. There is no double counting in this case, and thus, no rationale for eliminating reporting. ARB notes that reporting of CH_4 and N_2O is standard procedure for all GHG accounting systems.

§95122. Suppliers of Natural Gas, Natural Gas Liquids, and Liquefied Petroleum Gas

T-11. Interstate Pipeline Reporting Requirements

Comment: It is not clear in the Implementation of Mandatory Reporting Requirements, sections 95100 to 95133 of Title 17, California Code of Regulations that customer information and quantity of gas provided are the only requirements applicable to interstate natural gas transmission pipeline operations. In section 95122 "Suppliers of Natural Gas, Natural Gas Liquids, and Liquefied Petroleum Gas" it states that suppliers of natural gas who are required to report under section 95101 must also comply with Subpart NN of Title 40 of the Code of Federal Regulations Part 98 (40 CFR 98). No exemption from Subpart NN is identified for interstate pipeline operations. Although this may not have been the intent of the regulation, the wording of section 95122 is ambiguous and could be interpreted to mandate interstate pipelines comply with Subpart NN requirements. Subpart NN does not currently apply to interstate pipelines and it would be inappropriate and overly burdensome for CARB to request compliance with Subpart NN requirements. Please clarify that other than the reporting requirements discussed above, the revised mandatory reporting requirements and the cap and trade regulations provide no compliance obligation on interstate natural gas pipelines. Kern River requests that language be added to the proposed Mandatory Greenhouse Gas Emissions Reporting regulation to clarify that Subpart NN requirements will not be imposed on interstate natural gas pipelines. [FF 28.01 – KRGTC]

Response: Interstate pipelines are not local distribution companies, so the only reporting requirements for interstate pipelines are in section 95122(d)(3) which includes company information required under 40 CFR Part 98 and additional customer information required by this regulation. Compliance obligations are determined in the cap-and-trade regulation; however, interstate pipelines will not have a compliance obligation for natural gas delivered to their customers.

T-12. Adjustment of Local Distribution Company Emissions

Comment: Section 95122(b) sets forth the calculation of GHG emissions, which is based on federal regulations contained in 40 CFR §98. ARB will adjust PG&E's reported totals to reflect gas usage by large customers who report their own usage to ARB. To ensure that this process is completed accurately, PG&E suggests that the gas usage that is subtracted from PG&E's reported totals be verified during the annual verification process. This could be done in one of two ways. The verifier could compare PG&E meter data for large customers who report their own usage to the amount subtracted by ARB and report the results. Alternatively, ARB could provide PG&E the amounts subtracted for each customer, and PG&E could compare the adjustments to its billing data. [FF 19.19 – PGE]

Response: ARB agrees that verification of the reported meter volumes is critical to the subtraction process, and all meter volumes are already required to be verified for conformance with the regulation. Section 95852(c) of the cap-and-trade regulation will use the verified meter volumes to subtract the covered entity's emissions from the LCD's compliance obligation and provide the LDC aggregated customer information and volumes for comparison with company records.

T-13. Determining Interstate Pipelines Compliance Obligation
Comment: ARB should ensure that procedures for determining the compliance obligation of intrastate pipelines do not introduce errors and discrepancies due to differences in emission calculation methodologies and measured fuel consumption and fuel characteristic data between the intrastate pipeline operator and end user facilities. SMUD recommends that ARB ensure that the emissions and related data for natural gas fuel suppliers and end user facilities are harmonized for the purposes of determining the compliance obligations of the fuel supplier. [FF 25.07 – SMUD]

Response: ARB has made changes to section 95122 that require intrastate pipelines to report based on the sum of metered deliveries, and the subtraction of covered entities' emissions will occur using the invoiced deliveries based on the same meters, as required to be reported in section 95115(k), to avoid a compliance obligation based on meter inaccuracies.

§95123. Suppliers of Carbon Dioxide

No comments were received on section 95123.

U. Subarticle 3. Substitution for Missing Data – §95129

§95129 Substitution for Missing Data Used to Calculate Emissions from Stationary Combustion and CEMS Sources

U-1. Sixty Days Tool Long to Rule On Request
Comment: Attachment B, pg. 34, WSPA believes that 60 days is too long for the EO to rule on an interim data request. They would like this review period to be reduced to 30 days. [FF 11.58 – WSPA]

Response: The time frame of 60 days is the maximum amount of time for approving interim data requests. In practice, ARB expects to accommodate the needs of the reporters and respond much sooner than 60 days, but up to 60 days may be needed if multiple requests are received.

U-2. Delay Missing Data Procedures for Onshore Oil and Gas Producers
Comment: The missing data procedures for fuel characteristic data and fuel consumption data are different from 40 CFR 98 for PNGS stationary and portable combustion equipment. There are three methods of substitution for fuel consumption data alone. OPGP reporters are expected to have several hundreds of fuel meters in a hydrocarbon basin that will be used for fuel measurement and emissions calculations of stationary combustion equipment. Based on the proposed missing data substitution procedures, OPGP reporters will face complicated monitoring and management of the data for each meter. Given the large number of meters at OPGP facilities, reporters will likely not be able to implement these missing data procedures during 2012. Recommendation: In order to effectively implement this program, we recommend that the missing data procedures of 95129 be delayed until 2014 for Onshore Oil and Gas Producers. [FF 11.65 – WSPA]

Response: ARB believes the MRR's one-year delay in application of section 95129 missing data procedures (2013 reporting rather than 2014 reporting) is appropriate. In preparation for the cap-and-trade program beginning with 2013 data, operators need to become familiar with those procedures.

V. Subarticle 4. Verification and Verifier Requirements §95130 – §95133

§95130 Requirements for Verification of Emissions Data Reports

V-1. Annual Verification
Comment: 95130(a) The MRR seeks to require a full verification service for 2011. This does not align with previous verification requirements. The MRR as originally adopted requires a full verification every three years, beginning with report year 2009 (not 2008). Using the existing and not proposed MRR, the next full verification would be due in 2012. The Utilities do not believe that a reporting entity who had a full verification the first year it was required of the three year cycle (data year 2009), should be required to have a full verification in 2011. Most entities, including the Utilities, entered into contracts with verifiers based on these requirements. As the Utilities have stated in previous comments to CARB on this issue, a full verification has significant additional expenses compared with the less intensive verifications required in the remaining years of the compliance period due to the necessary on-site visits. For example, if REU were required to perform an additional full verification for its 2011 data year, REU would be obligated to reopen its existing verification contract and would see an increase in verification costs of up to 20% above REU's currently budgeted costs. Thus, the Utilities offer the above language for consideration. [FF 05.08 REU]

Response: Full verification is required in 2012 for the 2011 data year per 95130(a)(1)(A). Changes to the existing requirements are necessary to provide a more rigorous verification schedule and process to support a cap-and-trade

program. Under the cap-and-trade program, the 2013 allocation auction will be based on the 2011 data verified in 2012. Full verification is also required for the first year that verification is required in each compliance period. The first compliance period in the cap-and-trade does not begin until the 2014 reporting year (2013 data). For this reason, a full verification is not required in 2012 and 2013, but rather 2012 and 2014.

V-2. Annual Verification and Product Data
Comment: For product data that is not required to calculate cap and trade compliance obligations until 2015, verification should not be required until 2013 data is reported. [FF 11.04 WSPA]

Response: Product data verification is required beginning in 2012 for 2011 product data in order to support allowance allocation in the cap-and-trade program.

V-3. Annual Verification of Transportation Fuel
Comment: Transportation fuel reporting data should require verification starting with 2013 data. Transportation fuel data not required to determine compliance obligation should not be required to be verified. [FF 11.07 WSPA]

Response: All emission data reports that required verification under the regulation are being verified in 2011 to give entities the time to fix any nonconformances that may lead to an adverse opinion prior to their first compliance period, and to allow ARB to track actual emissions. Position holders and enterers are allowed to use best available methods for reporting in 2012 of 2011 data.

V-4. Requirements for Full Verification
Comment: In section 95130(a)(1)(E) the commenter would like the requirement to clearly specify one of the conditions that would require a full verification be performed is a 25 percent change in emissions from the previous reporting period, instead of requiring a verification body to provide justification why a full verification was not conducted when such a condition occurs. [FF 52.01- FE]

Response: ARB did not make this change as the 25 percent change in emissions from the previous reporting period will not be the same magnitude of emissions for all reporting entities. ARB wishes to give discretion to the verifier on this decision.

§95131 Requirements for Verification Services

V-5. Material Misstatement

Comment: Assessments of material misstatement in section 95131(b) should only include covered emissions. The formula for assessing whether an emissions

data or product data report contains a material misstatement. In the previous version of this Regulation, emissions without a compliance obligation were excluded from this calculation, but that language has been stricken from the current version. In contrast to the first 15-day drafting of the Regulation, informal communications received from ARB staff in July 2011 indicated that the intention was only to use the emissions with a compliance obligation calculated in accordance with § 95111(b)(5) to assess material misstatement for electric power entities. This approach is greatly preferable. It focuses attention on accurate reporting of covered emissions and does not expose the reporting entity to the risk of receiving an adverse verification statement for issues with peripheral reporting items that do not affect the entity's compliance obligation. The material misstatement provisions should only apply to covered emissions as defined in that section. See comment letter for proposed edits. [FF 49.24 - SCPPA]

Response: The definition of covered emission was added and language in 95131(b)(12) was modified to address this comment. Material misstatement assessments are conducted by verification bodies on total reported covered emissions and reported single product data components.

V-6. Title Sampling Plan Ranking

Comment: Provide clarification in section 95131(b)(7)(B) of the regulation regarding what is meant by "a ranking of product data with the largest uncertainty." While we generally understand the need for considering the uncertainty of emissions calculations, we are not sure why there would be uncertainty with respect to product data. [FF 52.03 - FE]

Response: With respect to product data uncertainty can be found with scales, equipment and calculations. Consistent with current practice, ARB will continue to work with stakeholders to ensure successful program implementation and may provide further assistance in guidance.

V-7. Sampling Plan Narrative

Comment: The commenter requests that "also include a narrative" in section 95131(b)(7)(C) be removed since they believe the information can more clearly and more efficiently be presented in a tabular format. However, the formatting of the qualitative risk narrative is not specified in the regulation. [FF 52.04 - FE]

Response: The qualitative narrative of the uncertainly risk assessment is an expanded synthesis of the information contained in the rankings, and includes more detail on specific risks. The formatting of the risk narrative will be at the discretion of the verifier. As such, ARB declines to make the requested change.

V-8. Missing Data Substitution
Comment: 95131(b)(14)(D) WSPA opposes the "categorical" non-conformance in a case where emissions from a single data element with more than 20% of the data missing, but emissions from this same single element are minimal. [FF 11.59 WSPA]

Response: Section 95131(b)(13) was added to ensure missing data substitutions of reported emissions data was not used for large portions of single sources or the overall emissions. The selection of a 5% standard for missing data is consistent with the material misstatement error requirements in this regulation. The 20% standard is consistent with the existing language in the 2007 version of the mandatory reporting regulation (section 95103(a)(8)).

V-9. Missing Data Substitution
Comment: 95131(b)(14)(A) Add the following sentence: "For automated missing data procedures implemented in a CEMS data acquisition system (DAS), the verification will consist of checking the program logic documentation provided by the DAS vendor. For items where reporting and missing data substitution is based on procedures used for accounting purposes, verification will consist of checking that the data conforms to procedures used for accounting purposes." [FF 12.09 - CSCME]

Response: ARB has designed the MRR such that verifiers must be able to perform reasonable checks on the reporter's data management and recordkeeping practices to ensure the integrity and quality of data. The suggested modification would limit the ability of verifiers to conduct those checks as provided for in existing regulation language. As such, ARB declines to make the requested change.

V-10. Missing Data Substitution
Comment: Commenter suggests deleting the portions of 95131(b)(14)(D) including, "or any combination of data elements that would result in more than 5% of a facility's emissions being calculated using missing data requirements" and "at a minimum" to avoid making this provision inconsistent with (A), (B), and (C) in this section. As the section is now worded, it greatly increases the applicability of the statement to cement plants with single kilns. In addition, the selection of the 5% standard, relative to the 20% standard, appears to be arbitrary. [FF 12.10 – CSCME]

Response: Section 95131(b)(13) was added to ensure missing data substitutions of reported emissions data was not used for large portions of single sources or the overall emissions. The selection of a 5% standard for missing data is consistent with the material misstatement error requirements in this regulation. The 20% standard is consistent with the existing language in the 2007 version of the Mandatory Reporting regulation (section 95103(a)(8)).

V-11. Missing Data Substitution

Comment: 95131(b)(14)(E) Section states that "the verifier must confirm that missing data substitutions were not used for product data". This statement implies that it is not possible to use missing data for product data, which does not seem to make sense. We request that this language be changed to say: "The verifier must confirm that missing data substitutions used for product data, if any, conformed to standard business practices used for accounting purposes." [FF 12.11- CSCME]

Response: ARB has modified the data substitution for product data to explicitly separate it from the emission data requirement. The regulation does not allow for data substitution for product data to ensure the accuracy of the data used in the allowance allocation component of the cap-and-trade program.

V-12. Assigned Emissions

Comment: Section 95131(c)(5) sets out the procedure for the Executive Officer to develop an assigned emissions level for a reporting entity. Section 95131(c)(5)(C) previously provided reporting entities at least five days to review and comment on the assigned emissions level, but that language has been stricken from the current version of the Regulation. Given the importance of an assigned emissions level to a reporting entity, the entity should be given some time to review it. The deleted language in §95131(c)(5)(C) should be reinstated. For consistency with the time periods in other parts of section (c)(5), the time period should be changed to five working days. [FF 49.25 - SCPPA]

Response: The timeframes for the cap-and-trade program are aggressive and must be met in order for the market system to function correctly. ARB notes that the MRR does provide for a petition process regarding an adverse verification statement, prior to determining an assigned emissions level (see section 95131(c)(4)). ARB believes that including any further time following a determination of an assigned emissions level would negatively impact the timeframe needed by the cap-and-trade regulation.

V-13. ARB Requests for Information

Comment: In sections 95131(c)(4)(B) and 95131(c)(5) the commenter requests that the verification bodies response period to requests by ARB or the Executive Officer be extended from five to ten working days to allow adequate time to ensure proper response to these requests. [FF 52.05 - FE]

Response: Due to the timeframes in the cap-and-trade program, ARB cannot expand any timeframes in the MRR.

V-14. Contracts for Verification Services

Comment: The commenter considers "contracts for verification services" in section 95131(g) to be confidential information and the review of such information unnecessary for ARB relative to determining whether either GHG

reports or verification services provided are consistent with the requirements of the regulation and therefore request this language be removed from this section. [FF 52.06- FE]

Response: Verification bodies have a regulatory obligation to conduct a thorough verification in accordance with all regulatory requirements, and need to carefully consider their ability to fulfill their regulatory obligations when contracting. ARB assumes full responsibility for the implementation and enforcement of the MRR. Therefore, ARB has full oversight over all facets of the program. This oversight spans from accreditation to conflict of interest review, to audits of both the reporting entity and the verification body, which may include review of contracts.

V-15. Verification and Resource Shuffling

Comment: Include Review of Potential for Resource Shuffling as Part of the Verification Process. The detection of resource shuffling should be part of the verification process and included as part of MRR Section 95131. Add the following to 95131. Section 95131(b)(6) Electricity Importers and Exporters. The verification team shall review the GHG Inventory Program documentation required pursuant to Section 95105(d), electricity transaction records, including deliveries and receipts of power as verifiable via North American Electric Reliability Corporation (NERC) e-Tags, written contracts, settlements data, and any other applicable information required to confirm reported electricity procurements and deliveries, and confirm no resource shuffling has occurred. 95131(c)(4)(A) If the reporting entity and the verification body cannot reach agreement on modifications to the emissions data report that result in a positive verification statement or qualified positive verification statement for the emissions or product data because of a disagreement on the requirements of this article or claim of resource shuffling, the reporting entity may petition the ARB Executive Officer before the verification deadline and before the verification statement is submitted to make a final decision as to the verifiability of the submitted emissions data report. The reporting entity may petition either emissions or product data, or both. At the same time that the reporting entity petitions the Executive Officer, the reporting entity must submit all information it believes is necessary for the ARB Executive Officer to make a final decision. [FF 55.13 - SEMP2]

Response: The definition and prohibition of resource shuffling are provided for in the cap-and-trade regulation, rather than the MRR. This response only applies to electricity verification. Verifiers of biomass-derived fuels will be required to verify the origin of biomass-derived fuel to ensure its composition and use. Additionally, please see Response P-17

V-16. Verification of Biomass-derived Fuels and Site Visits

Comment: Site visits: Under the general verification provisions in § 95130(a) (MRR p. 212) and the definition of “less intensive verification” in § 95102(a)(218)

(MRR p. 38), site visits are required only when full verification is required (which is quite frequently). This should also apply in relation to biofuel verification [95131(i)(1)(c)(2)]. Site visits should not be required in years in which full verification (either for the reporting entity's full report, or for its biofuel emissions only) is not required. Furthermore, site visits to corporate headquarters or data management offices will increase verification costs without providing any information that could not be found from a desktop/ online review. Consider the costs of sending verifiers to visit the corporate headquarters of fuel marketers around the United States. Site visits will only provide useful information when the next upstream entity is the fuel producer and the site visit is to the fuel production facility. To avoid unnecessary costs, site visits should only be required when the next upstream entity is the fuel producer. [FF 50.04 - SCPPA2]

Response: The site visit language cited above is specific to biomethane and was modified in the second 15-day modification. The modifications to section 95131(i) now require facilities to produce evidence identified in 95103(j)(3) to the verifier at the time of verification justifying the claim of biomethane usage. These sections were modified to simplify verification without reducing rigor.

V-17. Verification of Biomass-derived Fuels

Comment: 95131(i) This section states that "in the absence of certification of the biomass-derived fuel by an accredited certifier of biomass-derived fuels, the verification body is subject to the requirements of sub-article 4 of this article as modified below when verifying biomass-derived fuel". Please define "accredited certifier of biomass-derived fuels" in the regulation, and explain in the supporting documents how this option will work and be made available to all facilities. [FF 12.14 - CSCME]

Response: Several changes were made to streamline verification of biomass-derived fuel in section 95131(i) in the absence of a biomass-derived fuel certification program. See also Response to J-12.

V-18. Verification of Biomass-derived Fuels

Comment: Section 95131(i) states that in addition to an annual verification for biomass derived fuels, a full verification is required if there has been a change in the entity immediately upstream in the chain of title or there has been an increase of more than 25 percent in the volume of fuel from an entity immediately upstream in the chain of title. An annual verification already requires biomass derived fuel providers to track and provide data on volumes and all entities involved in the production and transfer of fuel. Changes in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass derived fuels develops. A full-scale verification each time could be overly burdensome and expensive for small fuel providers when an annual verification itself could take several months to complete. By requiring an annual audit of all relevant sources of supply, title holders, etc. ARB will receive the

information it is seeking without adding an additional burden on fuel providers. We urge ARB to consider requiring annual verifications only. http://www.arb.ca.gov/lists/capandtrade10/1443-em_comments_for_arb_final_august_11__2011.pdf. [FF C&T 90 - EM]

Response: ARB has modified section 95131 to remove the requirement for a site visit at upstream entities for biomethane. Therefore, the 25% requirement no longer applies.

V-19. Verification of Biomass-derived Fuels

Comment: Remove the requirement in the MRR section 95131(i) for mid-year or intermediate verifications for biomass derived fuels. Section 95131(i) states that in addition to an annual verification for biomass derived fuels, a full verification is required if there has been a change in the entity immediately upstream in the chain of title or there has been an increase of more than 25 percent in the volume of fuel from an entity immediately upstream in the chain of title. An annual verification already requires biomass derived fuel providers to track and provide data on volumes and all entities involved in the production and transfer of fuel. Changes in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass derived fuels develops. A full-scale verification each time could be overly burdensome and expensive for small fuel providers when an annual verification itself could take several months to complete. By requiring an annual audit of all relevant sources of supply, title holders, etc. ARB will receive the information it is seeking without adding an additional burden on fuel providers. We urge ARB to consider requiring annual verifications only. In sum, ABC very much appreciates the consideration ARB has given to biomethane projects in recognizing their contribution as a key compliance tool and a source of renewable electricity, heat and transportation fuel. We urge ARB to consider the recommendations that will simplify and clarify the treatment of biomethane while ensuring continued environmental rigor in the state. We look forward to working with ARB and support the development of a robust cap and trade program which will help California achieve its AB 32 goals. (ABC2) http://www.arb.ca.gov/lists/capandtrade10/1399-abc_comments_to_arb_-_10_august_2011.pdf. [C&T #48 FF15]

Response: See the Response to V-18.

V-20. Verification of Biomass-derived Fuels

Comment: MRR section 95131(i)(1)(A) requires an annual verification under which providers of biomass-derived fuels track and provide data on all volumes and entities involved in the production and transfer of fuel. Yet, section 95131(i)(1)(A)(1) and (2) also require a “full verification” any time there has been a change in the entity immediately upstream in the chain of title, or a volume increase of more than 25 percent from the immediately upstream entity. This second obligation imposes a very substantial and unnecessary burden. Changes

in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass-derived fuels develops. Undertaking a full-scale verification each time such events occur will be overly burdensome and expensive for many small fuel providers— especially considering that an annual verification itself could take several months to complete. The requirement for an annual verification of all relevant sources of supply and title holders will provide sufficient information for ARB without imposing unreasonable burdens. For these reasons, we urge ARB to require annual verifications only and remove section 95131(i)(1)(A)(1) and (2). http://www.arb.ca.gov/lists/capandtrade10/1497-cerp_comments_to_arb_on_proposed_cap_and_trade_regulation.pdf. [FF C&T 142 - CERP]

Response: See the Response to V-18.

V-21. Verification of Biomass-derived Fuels

Comment: 95131(i)(1)(A) Changes in biomass emissions affect whether a less intensive verification can be chosen in the second and third years. Full verification applies (in the second and third years of the compliance period, when it would not otherwise be required) when there has been a change in the entity (supplying biomass-derived fuel) immediately upstream in the chain of title or there has been an increase of more than 25% in the volume of fuel from the entity immediately upstream in the chain of title. Please modify this language as follows, given that biomass-derived fuel measurements are completely independent of other measurements, and hence changes in biomass-derived fuels should not trigger verification of unrelated measurements, and that full verification of biomass-derived fuel calculations should not be required for a 25% throughput increase except at the discretion of the verification body (just as 95130(a)(1) leaves this to the discretion of the verification body in case of 25 percent changes in total reported GHG emissions): “In addition to the full verification requirements in sections 95130(a)(1)(A)-(D), a full verification of biomass-derived fuel calculations is also required when there has a been a change in the entity upstream in the chain of title. The verification body must provide information on the causes of the emission changes and justification in the verification report if a full verification of biomass-derived fuel calculations was not conducted in instances where there has been an increase of more than 25% in the volume of fuel from the entity immediately upstream in the chain of title.” [FF 12.15 -CSCME]

Response: See the Response to V-18.

V-22. Guidance for Verification of Biomass-derived Fuels

Comment: 95131(i)(1)(D)(3) Please define in later guidance documents what documentation will be needed to support the contention in 95852.1 (cap & trade rule) that “no party may sell, trade, give away, claim or otherwise dispose of any of the carbon credits [or other instruments] attributed to the fuel production that

would prevent the resulting combustion from not having a compliance obligation". In general, guidance is needed on verification procedures for biomass-derived fuels involving supplier checks, given that this is outside the direct control of the receiving facility. [FF 12.16 - CSCME]

Response: No change to the regulation is proposed in the comment. Consistent with current practice, ARB will continue to work with stakeholders to ensure successful program implementation and may provide further assistance in guidance.

V-23. Verification Process Rigor

Comment: The commenter believes that the verification process, as presented in the mandatory reporting regulation, does not meet the standard of international best practice and strongly encourages ARB to ensure the regulation is consistent with international best practice by either incorporating all of the requirements of 14064 into the regulation, or incorporating its requirements by reference to the standard. The commenter notes that the requirements for verification services identified in the regulation roughly corresponds to the verification approach contained in ISO14064 Part 3 (the standard) which represents recognized international best practice regarding the performance GHG verification, the regulation's requirements omit several steps specified by the standard. These omissions include, but are not limited to, notably, an initial strategic review; and more significantly, the assessment of the GHG information system and its controls, an assessment which originates from financial auditing, from which GHG verification best practices were derived. In addition, the regulation lacks the detailed guidance regarding the performance of verification activities contained in Annex A of the standard. [FF 52.02 - FE]

Response: ARB disagrees with the comment and believes it has designed a robust and rigorous verification program which is consistent with the ISO 14065 accreditation standard and ISO 14064 Part 3. In addition, to assure the quality of verification services specific to California, ARB has added a performance review and a disclosure of verification body's contracts requirement to its current rigorous accreditation requirements.

V-24. Threshold for Nonconformance From Missed Data

Comment: Delete the portions of 95131(b)(14)(D) including, "or any combination of data elements that would result in more than 5% of a facility's emissions being calculated using missing data requirements" and "at a minimum" to avoid making this provision inconsistent with (A), (B), and (C) in this section. As the section is now worded, it greatly increases the applicability of the statement to cement plants with single kilns. In addition, the selection of the 5% standard, relative to the 20% standard, appears to be arbitrary. [FF 12.10 – CSCME]

Response: Section 95131(b)(13) was added to ensure missing data substitutions of reported emissions data was not used for large portions of single sources or

the overall emissions. The selection of a 5% standard for missing data is consistent with the material misstatement error requirements in this regulation. The 20% standard is consistent with the existing language in the 2007 version of the Mandatory Reporting regulation (section 95103(a)(8)).

V-25. Mid-Year Biomass-Derived Fuel Verification

Comment: Remove the requirement in the MRR section 95131(i) for mid-year or intermediate verifications for biomass derived fuels. Section 95131(i) states that in addition to an annual verification for biomass derived fuels, a full verification is required if there has been a change in the entity immediately upstream in the chain of title or there has been an increase of more than 25 percent in the volume of fuel from an entity immediately upstream in the chain of title. An annual verification already requires biomass derived fuel providers to track and provide data on volumes and all entities involved in the production and transfer of fuel. Changes in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass derived fuels develops. A full-scale verification each time could be overly burdensome and expensive for small fuel providers when an annual verification itself could take several months to complete. By requiring an annual audit of all relevant sources of supply, title holders, etc. ARB will receive the information it is seeking without adding an additional burden on fuel providers. We urge ARB to consider requiring annual verifications only. In sum, ABC very much appreciates the consideration ARB has given to biomethane projects in recognizing their contribution as a key compliance tool and a source of renewable electricity, heat and transportation fuel. We urge ARB to consider the recommendations that will simplify and clarify the treatment of biomethane while ensuring continued environmental rigor in the state. We look forward to working with ARB and support the development of a robust cap and trade program which will help California achieve its AB 32 goals. [FF C&T 48 – ABC]

Response: There was never a requirement for midyear or intermediate verification of biomass-derived fuels. However, ARB has modified the reporting and verification requirements for biomass-derived fuels in section 95131(i) so that full verification of the upstream entities is no longer required. ARB intended for this section to only apply to biogas and biomethane so this change negates the requirement for full verification at upstream entities.

V-26. Biomass-Derived Fuel Full Verification Requirements

Comment: MRR section 95131(i)(1)(A) requires an annual verification under which providers of biomass-derived fuels track and provide data on all volumes and entities involved in the production and transfer of fuel. Yet, section 95131(i)(1)(A)1. and (2) also require a “full verification” any time there has been a change in the entity immediately upstream in the chain of title, or a volume increase of more than 25 percent from the immediately upstream entity. This second obligation imposes a very substantial and unnecessary burden. Changes

in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass-derived fuels develops. Undertaking a full-scale verification each time such events occur will be overly burdensome and expensive for many small fuel providers— especially considering that an annual verification itself could take several months to complete. The requirement for an annual verification of all relevant sources of supply and title holders will provide sufficient information for ARB without imposing unreasonable burdens. For these reasons, we urge ARB to require annual verifications only and remove section 95131(i)(1)(A)(1) and (2). [FF C&T 142 – CERP]

Response: ARB has modified the reporting and verification requirements for biomass-derived fuels in section 95131(i) so that full verification of the upstream entities is no longer required. ARB intended for this section to only apply to biogas and biomethane so this change negates the requirement for full verification at upstream entities.

V-27. Accredited Certifier of Biomass-Derived Fuel

Comment: 95131(i) This section states that "in the absence of certification of the biomass-derived fuel by an accredited certifier of biomass-derived fuels, the verification body is subject to the requirements of sub-article 4 of this article as modified below when verifying biomass-derived fuel". Please define "accredited certifier of biomass-derived fuels" in the regulation, and explain in the supporting documents how this option will work and be made available to all facilities. [FF 12.14 - CSCME]

Response: See Response to J-12 and J-18.

V-28. Biomass-Derived Fuel Verification Requirements

Comment: 95131(i)(1)(A) Changes in biomass emissions affect whether a less intensive verification can be chosen in the second and third years. Full verification applies (in the second and third years of the compliance period, when it would not otherwise be required) when there has been a change in the entity (supplying biomass-derived fuel) immediately upstream in the chain of title or there has been an increase of more than 25% in the volume of fuel from the entity immediately upstream in the chain of title. Please modify this language as follows, given that biomass-derived fuel measurements are completely independent of other measurements, and hence changes in biomass-derived fuels should not trigger verification of unrelated measurements, and that full verification of biomass-derived fuel calculations should not be required for a 25% throughput increase except at the discretion of the verification body (just as 95130(a)(1) leaves this to the discretion of the verification body in case of 25 percent changes in total reported GHG emissions): "In addition to the full verification requirements in sections 95130(a)(1)(A)-(D), a full verification of biomass-derived fuel calculations is also required when there has a been a change in the entity upstream in the chain of title. The verification body must

provide information on the causes of the emission changes and justification in the verification report if a full verification of biomass-derived fuel calculations was not conducted in instances where there has been an increase of more than 25% in the volume of fuel from the entity immediately upstream in the chain of title." [FF 12.15 -CSCME]

Response: See Response to V-26.

V-29. Biomass-Derived Fuel Verification Requirements
Comment 95131(i)(1)(D)3. Please define in later guidance documents what documentation will be needed to support the contention in 95852.1 (cap & trade rule) that "no party may sell, trade, give away, claim or otherwise dispose of any of the carbon credits [or other instruments] attributed to the fuel production that would prevent the resulting combustion from not having a compliance obligation". In general, guidance is needed on verification procedures for biomass-derived fuels involving supplier checks, given that this is outside the direct control of the receiving facility. [FF 12.16 - CSCME]

Response: No change to the regulation is proposed in the comment. Consistent with current practice, ARB will continue to work with stakeholders to ensure successful program implementation, including through guidance if necessary.

V-30. Biomass-Derived Fuel Verification Requirements
Comment: Section 95131(i) states that in addition to an annual verification for biomass derived fuels, a full verification is required if there has been a change in the entity immediately upstream in the chain of title or there has been an increase of more than 25 percent in the volume of fuel from an entity immediately upstream in the chain of title. An annual verification already requires biomass derived fuel providers to track and provide data on volumes and all entities involved in the production and transfer of fuel. Changes in title and volume fluctuations can take place with relative frequency; more importantly, these occurrences might not take place in a predictable manner as the market for biomass derived fuels develops. A full-scale verification each time could be overly burdensome and expensive for small fuel providers when an annual verification itself could take several months to complete. By requiring an annual audit of all relevant sources of supply, title holders, etc. ARB will receive the information it is seeking without adding an additional burden on fuel providers. We urge ARB to consider requiring annual verifications only. [FF C&T 90 – EM]

Response: See Response to V-26.

V-31. Biomass-Derived Fuel Certification
Comment: Further changes are needed for clarity and to avoid impractical or overly burdensome verification requirements. The first paragraph of § 95131(i) refers to certification, but it would be helpful to include more details on the proposed certification program. This brief reference to such an important

concept, without a definition or other explanatory material, has already led to confusion and disagreements in the course of negotiating biofuel purchase contracts. A definition of certification should be included, as well as more details on the way in which the certification and verification requirements will interact. [FF 50.03 – SCPPA2]

Response: See Response to J-12.

V-32. Biomass-Derived Fuel Verification
Comment: Section 95131(i)(1)(A) refers to a full verification. A full verification of all reported emissions is an expensive and time-consuming process. It should not be triggered merely because there is a change or increase in a reporting entity's biofuel purchases. Biofuel purchases may form only a small part of an entity's total operations. In the circumstances set out in §95131(i)(1)(A), full verification should only be required for the biomass-derived fuel. [FF 50.03b – SCPPA2]

Response: See Response to V-26.

V-33. Biomass-Derived Fuel Verification
Comment: Site visits: Under the general verification provisions in § 95130(a) (MRR p. 212) and the definition of "less intensive verification" in § 95102(a)(218) (MRR p. 38), site visits are required only when full verification is required (which is quite frequently). This should also apply in relation to biofuel verification [95131(i)(1)(c)(2)]. Site visits should not be required in years in which full verification (either for the reporting entity's full report, or for its biofuel emissions only) is not required. Furthermore, site visits to corporate headquarters or data management offices will increase verification costs without providing any information that could not be found from a desktop/ online review. Consider the costs of sending verifiers to visit the corporate headquarters of fuel marketers around the United States. Site visits will only provide useful information when the next upstream entity is the fuel producer and the site visit is to the fuel production facility. To avoid unnecessary costs, site visits should only be required when the next upstream entity is the fuel producer. [FF 50.04 - SCPPA2]

Response: ARB has eliminated the need for site visits to upstream entities by changing the verification requirement to enable the entire biofuel verification to occur at the reporting entity. See also Response to V-26.

V-34. Incorrect Cross-Reference
Comment: 95131(i)(1)(D)4. refers to § 95852.1, but it is unclear whether this is the correct cross-reference. 95852.1 describes circumstances when biofuel does carry a compliance obligation, not requirements to be met in order for biofuel not to carry a compliance obligation. Additional changes to 95131(i)(1)(D)4. are required for clarity, including a reference to CO_2 emissions from combustion. [FF 50.05 - SCPPA2]

Response: ARB has corrected the reference to section 95852.1.1 and further modified section 95131(i)(1)(D)4. to reference CO_2 emissions as requested by the commenter.

V-35. Biomass-Derived Fuel Verification

Comment: 95131(i)(2)(D)1. requires the verifier to examine all contracts in the chain of title for the biomethane or biogas. The reporting entity may not be able to access any further upstream contracts (as it is not a party to those contracts). The verifier can request them from the upstream entities, but those upstream entities outside California are not necessarily required (under regulation or contract) to provide the contracts, and may refuse to provide them on the grounds that they are confidential. The reporting entity should not be held responsible for this as it is outside the reporting entity's control. [FF 50.06 - SCPPA2]

Response: ARB has made changes to the verification requirements for biomethane and biogas. Access to all contracts is no longer required and a provision has been added to section 95131(i) to allow any sensitive information to be sent by upstream entities directly to the verifier to maintain business confidentiality.

V-36. Biomethane Transport

Comment: Section 95131(i)(2)(D)2. refers to "all requirements of" § 95852.2 of the C&T Regulation. That section of the C&T Regulation is a list of fuel types, not a list of requirements. 95131(i)(2)(D)2. prohibits the use of fossil fuel to supplement the biofuel. However, it is standard market practice to schedule a small portion of natural gas when biomethane is being transported. Purchase contracts will always distinguish between the biomethane and the natural gas, given the significant price difference between the two. As long as the natural gas is not claimed as biomethane under the MRR, this section should allow this efficient practice to continue. [FF 50.07 - SCPPA2]

Response: ARB has modified section 95131(i)(2)(D)2. to allow for scheduling of fossil natural gas to aid in the transport of the biomethane. The reference to section 95852.2 requirements is to the requirement that the reported biomass-derived fuel be on the list in section 95852.2 of the C&T regulation to avoid a compliance obligation.

V-37. Biomethane Missing Data

Comment: 95131(i)(2)(D)4. is unclear. Why can't the missing data substitution provisions be used? Unless this provision is clarified and the need for this provision is demonstrated, it should be deleted. [FF 50.08 - SCPPA2]

Response: This provision has been removed.

V-38. Incorrect Cross-Reference

Comment: 95131(i)(3) refers to the "requirements" in § 95852.2 of the C&T Regulation. This section is a list of fuel types, not a list of requirements. Additional changes to 95131(i)(3) are required for clarity, including a reference to CO_2 emissions from combustion. [FF 50.09 - SCPPA2]

Response: This provision has been removed.

V-39. Transportation Fuels Verification
Comment: Attachment A, #2 WSPA requests 1) no verification for product data not used to determine compliance obligation, 2) clarification that fuel suppliers follow 95121(e) missing data provisions, and 3) clarification that EtOH and biofuels used to meet LCFS do not require additional verification. [FF 11.11 – WSPA]

Response: In response to the comment, ARB notes that: 1) material misstatement assessments are conducted by verification bodies on total reported covered emissions and reported single product data components. ARB limits material misstatement assessment to emissions data that directly leads to a compliance obligation. Product data that is reported but not subject to material misstatement will be required to undergo conformance checks by the verification team; 2) the fuels they report are eligible for missing data substitution; and 3) EtOH and biofuels still require verification because their CH_4 and N_2O emissions lead to a compliance obligation, but no additional requirements (contract shuffling and other requirements placed on other biomass-derived fuels in the cap–and-trade regulation) are placed on their verification.

V-40. Transportation Fuels Verification
Comment: Attachment A, #20 WSPA requests clarification that verification is not required for transportation fuels, biodiesel and ethanol. [FF 11.33 – WSPA]

Response: ARB has determined that verification is necessary for biodiesel and ethanol. Verifiers must determine conformance with the regulation and CH_4 and N_2O emissions from biomass-derived fuels may lead to a compliance obligation.

V-41. Appeal of Adverse Opinion
Comment: Attachment B, pg. 35, WSPA request that language be added to state that an adverse verification determination not be issued during the appeal process. [FF 11.60 – WSPA]

Response: ARB believes that section 95131(c)(4), as written, already provides that during the petition process, no verification statement is entered. As such, no change is necessary.

V-42. Verification Timeline
Comment: Attachment B, pg. 35, WSPA request that the time limit for submitting requested data to EO be increased from 5 to 10 days. [FF 11.61 – WSPA]

Response: ARB has determined that the timeline required for the cap-and-trade regulation prevents allowing any additional time for responding to the Executive Officer request. See also Response to J-10.

V-43. Transportation Fuels Verification
Comment: Attachment B, pg. 36, WSPA would like clarification that verification is not required for transportation fuel, biodiesel and ethanol annual purchase volumes. [FF 11.62 – WSPA]

Response: See Response to V-40.

§95132 Accreditation Requirements for Verification Bodies, Lead Verifiers, and Verifiers of Emissions Data Reports and Offset Project Data Reports

V-44. ARB Accreditation Process
Comment: Commenter would like the regulation to require a more rigorous verification accreditation and reaccreditation. They would like minimum requirements included in the MRR and the C&T regulation. They suggest language to be added to 95132(c)(4) that includes minimum requirements prior to reaccreditation. A performance review of a verification body would include 1) a review of the detailed sampling plans and verification reports from a representative sampling of geographic locations, lead verifiers and project types; 2) visits to a sampling of project sites; 3) visit to verifier primary office to review verification systems: 4) comparisons to other accredited verifiers who have verified projects of the same project type: 5) investigative review of the conflict of interest assessment provided by the verification body; 6) opportunity for public comment on verification body performance. Review of the detailed verification reports and sampling plans from a representative sampling projects and documentation of any discrepancies found during the review. [FF 36.02 – UCS, FF C&T 186.01- UCS]

Response: ARB has addressed the comment by modifying section 95132(c) to include a performance review in the accreditation process. This performance review will increase the scrutiny of the verifier accreditation applications and improve the screening process used at ARB. This modification was included in the second 15-day modifications.

V-45. ARB Accreditation Process
Comment: The regulations for accreditation, section 95132, establish only five specific requirements for verification bodies which can be summarized as:

- having two lead verifiers and five total staff;
- having (presumably) no significant judicial or other actions recently filed against it;
- maintaining a minimum level of insurance;

• procedures for evaluating conflict of interest; and
• procedures to support staff verification training.

FE states that these five requirements represent only a tiny subset of the requirements contained in ISO 14065; they believe that the verification body accreditation requirements, as presented in the mandatory reporting regulation, do not meet the standard of international best practice. Recognizing that activities implemented under AB32 provide an example to other North American programs and beyond, they strongly encourage ARB to ensure the regulations is consistent with international best practice by either incorporating all of the requirements of 14065 into the regulation or incorporating its requirements by reference to the standard. [FF 52.07- FE]

Response: See Responses to V-23 and V-44.

§95133 Conflict of Interest Requirements for Verifiers

V-46. Conflict of Interest and District Verification
Comment: CAPCOA is pleased that new language in the mandatory reporting regulation section 95133(h)(1) establishes a presumption that multiple functions performed by air districts as a part of their regulatory duties do not constitute a potential for a high conflict of interest with regard to verifying emissions of greenhouse gases under the mandatory reporting program. This change will enable air district staff to cost-effectively verify emissions reports for facilities that elect to use our services, and to do so with a high degree of quality. We are satisfied that our concerns have been met regarding the language in the mandatory reporting regulation and we look forward to jointly implementing it with the ARB staff. [FF 15.01 – CAPCOA, FF 34.01 - SCAQMD]

Response: ARB appreciates the commenter's support.

V-47. Conflict of Interest and District Verification
Comment: Satisfied with new proposed language in 95133(h)(1) regarding conflict of interest for local air districts. [FF 56 - BAAQMD]

Response: ARB appreciates the commenter's support.

W. Subarticle 5. Requirements and Calculation Methods for Petroleum and Natural Gas Systems (§95150 – §95157)

W-1. Include Specific Reference to Subparagraph "c" for Clarity
Comment: Comment on Section 95152(c): Add the (c) in 40 CFR §98.232 to indicate subparagraph (c) for clarity. Modify §95152(c) For onshore petroleum and natural gas production, the operator must report emissions from the source

types specified in 40 CFR §98.232(c), in aggregated and disaggregated form as specified in section 95156(a). [FF 55.28 – SEU]

Response: This section was modified to provide clarification and to address the commenter's concerns.

W-2. Requirements for Small Centrifugal Compressors

Comment: Comment on Section 95153(m): GHG emissions from centrifugal compressors can vary significantly depending on the type of seals and the size of the compressor, and alternative emission estimation methodologies for centrifugal compressors less than 250 hp are needed. The cited GHG emission factors (EF) for centrifugal compressors with rated horsepower less than 250 hp (from 40 CFR §98.233(o)(7)) are not appropriate and would most likely severely over-estimate GHG emissions for compressors of this size range. The centrifugal compressor EF is based on emissions data from processing facility compressors equipped with wet seals. The emission factors over-estimate emissions from small centrifugal compressors because (1) not all compressors are equipped with wet seals and emissions from dry seals are typically an order of magnitude or more lower than wet seal emissions and (2) processing facility compressors are typically an order of magnitude or more larger than the average compressor less than 250 hp. As a point of comparison, the centrifugal compressors methane emission factor from 40 CFR §98.233(o)(7) is 12,200,000 scf CH_4/yr, a factor of 100 greater than the corresponding methane emission factor for reciprocating compressors < 250 hp (9,630 scf CH_4/yr). An alternative could be emission factors that consider compressor size and seal type. Direct monitoring could also be an alternative to using inaccurate emission factors, but direct monitoring can at times be unsafe due to intermittency and intensity of venting operations. For these accuracy reasons, and the possibility of alternative measurement solutions which have yet to be identified, it is recommended that operators be given the option to request from ARB the opportunity to use other available monitoring methods. Delete §95153(m)(2) The operator must calculate CO_2, CH_4, and N_2O (when flared) emissions for all centrifugal compressors with rated horsepower less than 250hp using the methodologies found in 40 CFR §98.233(o)(7). [FF 55.30 – SEU]

Response: Reporters are not required to hold a compliance obligation for reciprocating and centrifugal compressors rated at under 250hp. These emissions are designated as "reporting only" and therefore ARB believes that it is appropriate to use default emission factors for this source, rather than require extensive emissions testing for these smaller compressors. ARB declines to make this change; we also note this requirement should not affect this commenter as a local distribution company.

W-3. Modify Equation to Harmonize with U.S. EPA Requirements

Comment: Comment on Section 95153(t): Equation should be changed to correspond to most recent Subpart W proposed revisions. Modify §95153(t) The

operator must calculate GHG mass emissions using the following equation: ,= , ∗ ∗10−3 P=Density of GHG i. Use 0.0538 0.0520 kg/ft3 for CO_2 and N_2O, and 0.0196 0.0190 kg/ft3 for CH_4 at 68°F and 14.7 psia or 0.0530 kg/ft3 for CO_2 and N_2O, and 0.0193 kg/ft3 for CH_4 at 60˚F and 14.7 psia. [FF 55.31 – SEU]

Response: ARB is not incorporating this or other proposed U.S. EPA revisions at this time. Proposed changes to the federal rule may be changed before they are finalized. In addition, ARB believes it important to review all final U.S. EPA changes for implications on ARB control programs, particularly the cap-and-trade program, if incorporated into ARB's requirements. After U.S. EPA takes final action and this review is completed, ARB staff will look for an opportunity to incorporate appropriate changes in a subsequent regulatory action. ARB remains committed to working with stakeholders to ensure to the degree possible that California GHG reporting regulations are harmonized with finalized U.S. EPA reporting requirements.

W-4. Harmonization with U.S. EPA Requirements

Comment: The required calculation methods use several constants and emission factors. There are differences between Subpart W and ARB values for constants and emission factors. For example, values for density of GHG provided in the calculation method in Section 95153(t) do not match the proposed technical corrections to Subpart W released July 2011. This would require PNGS operators to maintain two separate methods for the same calculations, contrary to ARB's intention of aligning its requirements with those specified in 40 CFR 98. Recommendation**:** We request ARB to align the constants and emission factors with Subpart W for PNGS reporters. [FF 11.66 – WSPA]

Response: See Response to W-3.

W-5. Error in Equation

Comment: Section 95153. Calculating GHG Emissions. Comment on Section 95153(d): The equation should have 100 in the denominator (to convert %G to a mole fraction) Modify § 95153 (d)(1) , = (∗ 2∗ ∗ 2∗%)/(4∗ 1∗1,000 /)/100 [FF 55.29 – SEU]

Response: "ARB has included a nonsubstantial addition of "(expressed as a fraction)" to clarify this equation variable, consistent with the other equation variable metrics. This does not change the reporting requirements and addresses the commenter's concerns."

W-6. Reporting Portable Equipment Combustion Emissions

Comment: Modify §95153(w). Portable Equipment Combustion Emissions. The operator must calculate from portable equipment pursuant to section 95115 of this article. Recommend using the methods in §95115 and report under this subpart the emissions of CO_2, CH_4, and N_2O from portable fuel combustion equipment as defined in §95102(288) [FF 55.32 – SEU]

Response: Section 95153(w) has been combined with former section 95153(x) to include both Stationary and Portable Combustion Emissions. Reporters must use the methods in section 95115 to report CO_2, CH_4, and N_2O emissions as defined in 40 CFR section 98.232(c)(22). This is consistent with the commenter's request.

W-7. Modify Requirements for Portable Equipment Reporting
Comment: Modify § 95153(x) Stationary Equipment Combustion Emissions. The operator must use the methods in section 95115 and report under this subpart the emissions of CO_2, CH_4, and N_2O from stationary or portable fuel combustion equipment as defined in 40 CFR §98.232(c)(22). Possible Alternative text to Section 95153 (w) and Section 95153 (x) (i.e., substitute the following text for current versions of Section 95153(w) and Section 95153 (x)) Add §95153(w) Stationary and Portable Equipment Combustion Emissions. The operator must use the methods in section 95115 and report under this subpart the emissions of CO_2, CH_4, and N_2O from stationary or portable fuel combustion equipment as defined in 40 CFR §98.232(c)(22) [FF 55.33 – SEU]

Response: See Response to W-6.

W-8. Exempt Critical Safety Systems from Pneumatic Device Metering Requirements
Comment: Section 95153(a) requires natural gas meters be installed on all pneumatic high bleed devices and pneumatic pumps by January 1, 2015. PG&E continues to believe that ARB should exempt critical safety systems from pneumatic device metering requirements in §95153(a) when the installation of metering devices on these controls could impact the reliability and functionality of natural gas facilities. Typical critical safety systems on the PG&E gas system include pressure regulation and over-pressure protection devices and valves used for the emergency isolation and/or evacuation of stations or pipeline segments. PG&E's primary concern is that by adding meters to these systems, an additional point of failure is introduced, which could reduce the reliability of critical safety systems. If ARB is concerned that an exemption for critical systems would be unclear or difficult to administer consistently, PG&E proposes that a process be established to enable an entity to obtain an exemption from ARB on a case-by-case basis. If the final ARB regulation requires installation of meters at all high bleed pneumatic devices, PG&E suggests that the January 1, 2015, deadline be extended to allow a phase-in of meter installation over a two-year period starting on January 1, 2015. Extending the deadline would also allow reporting entities to identify equipment located on critical safety systems and work with ARB to obtain an exemption. [FF 19.201 – PGE]

Response: ARB has provided reporters who are subject to this provision three full years to identify the affected high bleed devices, and either replace these emissions sources or install metering to accurately quantify emissions. ARB has determined that an extension for an additional two years as proposed by the

commenter is excessive and unnecessary. As the commenter points out, establishment of an exemption procedure would be very problematic. If during the initial three year implementation period devices are identified that cannot safely be replaced or metered, ARB will work with reporters to devise a method for emission quantification.

W-9. Define Low Bleed Pneumatic Device

Comment: ARB has not provided a definition for Natural Gas Pneumatic Low Bleed Devices. Without the definition, it is unclear which devices (intermittent or continuous) are included under this source category. Recommendation: WSPA requests ARB to provide a definition for Natural Gas Pneumatic Low Bleed Devices. [FF 11.77 – WSPA]

Response: ARB has modified section 95153(b) to include the definition requested by the commenter.

W-10. Identification of Incorrect Reference

Comment: ONGP operators are required to use reporting methodologies of 40 CFR 98.233(j) for all blowdowns occurring at an ONGP facility. ARB has incorrectly referenced the section of Subpart W for blowdown vent stacks. The correct Subpart W reference is 40 CFR 98.233(i). Recommendation: WSPA requests ARB to correct the Subpart W rule reference. [FF 11.78 – WSPA]

Response: This reference has been corrected.

W-11. Allow Use of Additional Methods for Storage Tanks

Comment: WSPA appreciates ARB's willingness to listen to our concerns with Section 95153 (i), regarding proposed quantification requirements for onshore production and processing storage tanks. While WSPA supports some of the 15-day revisions in this section, unfortunately, the proposed EPA Methods 1 & 2 (specifically Method 2) are not applicable to most WSPA member operations. For example, Method 2 is designed for operator equipment having separators on the well pad. Many, if not most, of the WSPA member operators in California do not operate with that configuration. WSPA recommends ARB should also incorporate EPA Methods 3, 4 & 5, as specified in EPA 40 CFR98 reporting requirements. These additional methods will allow WSPA members the ability to utilize a method that applies to their equipment and operating configuration and will result in facilities calculating and reporting more accurate emission data associated with their onshore production and processing tanks. Recommendation: WSPA recommends ARB should also incorporate EPA Methods 3, 4 & 5 as referenced in Subpart W for quantifying GHG emissions from onshore production and processing storage tanks. [FF 11.74 – WSPA]

Response: This section has been modified to allow use of all U.S. EPA methods as the commenter requests, as storage tanks are not designated for inclusion in the cap-and-trade program at the present time.

W-12. Identification of Typographical Error

Comment: ARB has incorrectly referenced $Mass_s,i$ as $Mass_s,il$ in the definition under the equation. Recommendation: WSPA requests ARB to correct the equation definition of $Mass_s,i$. [FF 11.79 – WSPA]

Response: The error has been corrected in section 95153(t).

W-13. Identification of Incorrect Reference

Comment: WSPA has identified an error in Subpart W reference for EOR Injection Pump Blowdowns. The correct Subpart W reference is 40 CFR 98.233(w). Recommendation: WSPA requests ARB to correct Subpart W rule reference. [FF 11.80 – WSPA]

Response: This error has been corrected in section 95153(u).

W-14. Defer Reporting of Produced Water Dissolved CO_2 Emissions

Comment: ARB requires operators to determine the amount of CO_2 retained in produced water at Standard Temperature and Pressure (STP) conditions. As ARB is aware, EPA identified that there is currently no technical analytical methods available to quantify CO_2 in produced water and subsequently decided to defer having facilities report CO_2 emissions from this source until such time an accurate method is available. Because EPA has determined no valid method currently exists and that ARB's Stationary Source Division technical experts as well as those from WSPA member companies are currently evaluating possible methods, ARB should defer quantifying these emissions until an appropriate and accurate method is developed. In the event ARB believes quantifying such emissions are necessary, WSPA would support as an alternative, utilizing best available engineering methods that could be used to report emissions within the de minimus reporting criteria category. Recommendation: WSPA recommends ARB defer quantifying CO_2 emissions associated with produced water, until an appropriate and accurate laboratory analytical method is developed. [FF 11.75 – WSPA]

Response: ARB recognizes that additional technical work is underway on calculating CO_2 and CH_4 from produced water, but believes it is important to collect emissions information for this source using the prescribed methods until such work is completed and the regulation is revised. The cap-and-trade regulation was amended to exclude these sources from a compliance obligation for the near term, pending this additional work. Though the MRR calculation methods may be very conservative for some cases, this will not result in unfair treatment for these facilities due to the current exclusion of this source from the cap-and-trade regulation. No change is needed at this time.

W-15. Reporting CH_4 Emissions for Produced Water Dissolved CO_2

Comment: Regarding Section 95153(v) – Produced Water Dissolved CO_2, the first line says: "Produced Water Dissolved CO_2. The operator must calculate dissolved CO_2 and CH_4 in produced water as follows:" The remainder of the section does not mention CH_4. Are CH_4 emissions required to be reported or not? [FF 43.01 – MS]

Response: ARB has made a minor change to the subheading of this reporting provision to clarify that, as the body of the methodology states, the reporter must measure and report both CO_2 and CH_4 emissions.

W-16. Reporting Using BAMM

Comment: PNGS operators are required to conform to the QA/QC requirements of 40 CFR 98.234. 40 CFR 98.234(f) allows reporters to use best available monitoring methods (BAMM) for several source categories and request additional time to use BAMM. On June 27, 2011 EPA proposed rulemaking that would extend the use of BAMM for all Subpart W source categories through December 31, 2011, with the ability to request additional BAMM for 2012 and beyond. It is not clear if ARB will allow reporters to use the BAMM approved by EPA or if ARB requires reporters to apply for BAMM from ARB directly. If the latter is true, what is the timeline for ARB BAMM use and when would be the deadline to request BAMM? WSPA appreciates ARB's intention to align with EPA for combustion emissions calculation methodology. This alignment reduces an enormous burden of maintaining two separate calculation methods for ARB and EPA for the same equipment.

Pursuant to 40 CFR Part 98 Subpart W, PNGS operators are required to use the calculation methodologies of Subpart C for all industry segments except OPGP and Natural Gas Distribution segments. For these industry segments, Subpart W identifies different calculation methods for certain fuels. For example, for all fuels listed in Table C-1 of Subpart C and pipeline quality gas, Tier 1 is used. This is similar to ARB requirements under 95115. However, while ARB requires reporters to use Tiers 3 or 4 (using carbon content) for field quality gas, Subpart W has provided separate calculation methods (using all constituents of the gas). Given the large number of stationary and portable combustion equipment located in a hydrocarbon basin, it is impractical for OPGP operators to maintain two separate calculation methods for the same equipment and will result in greater burden without improved data quality. Recommendation: We request ARB to align with Subpart W for OPGP reporters, and allow the use of BAMM automatically as provided by EPA through December 31, 2011 with the ability to request BAMM for 2012 on as needed basis. [FF 11.81 – WSPA]

Response: The regulation incorporates U.S. EPA BAMM provisions finalized as of April 25, 2010. Further BAMM provisions were not finalized in time for ARB to review for inclusion if appropriate. ARB is requiring use of the methods in section

95115 for portable equipment and stationary combustion sources, as requested by the commenter (see response to W-6).

W-17. Provide Guidance on Use of BAMM

Comment: PNGS operators are required to conform to the QA/QC requirements of 40 CFR 98.234. 40 CFR 98.234(f) allows reporters to use best available monitoring methods (BAMM) for several source categories and requires reporters to request BAMM extension by July 31, 2011 for 2011 data. We are not clear if ARB intends to allow reporters to use the BAMM approved by EPA or if ARB requires reporters to apply for BAMM from ARB directly. If the latter is true, what is the deadline to make such requests as we are currently past the EPA deadline for such requests? Recommendation: We request ARB to provide clear guidance on BAMM. [FF 11.82 – WSPA]

Response: The regulation does not require a separate request to ARB to use applicable BAMM. U.S. EPA approval of BAMM as required is sufficient. Operators should follow the BAMM requirements found in the Final U.S. EPA Rule issued on April 25, 2011, which has been incorporated by reference in ARB's modified MRR.

W-18. Granularity and Aggregation for Basin Reporting

Comment: Onshore Petroleum and Natural Gas Production (OPGP) operators are required to report emissions in an aggregated and disaggregated form by each facility within contiguous property boundaries as specified in 95156(a). ARB is unclear if the "disaggregated form" of data is limited to 95156(a)(1-4). Recommendation: Please clarify that the level of granularity and aggregation for rest of the reported data is in alignment with Subpart W. [FF 11.76 – WSPA]

Response: ARB has added language to clarify that operators must "report the following data disaggregated within the basin by each facility that lies within contiguous property boundaries." Reports of data in this disaggregated form are limited to those additional data elements specified in section 95156.

W-19. Harmonize With U.S. EPA Requirements for Subpart W

Comment: Update ARB Subpart 5 to reflect July 2011 revisions to U.S. EPA Subpart W requirements, and associated comments. [FF 11.08 – WSPA]

Response: There are no July 2011 revisions to U.S. EPA Subpart W requirements, although revisions were proposed in August 2011. ARB is not incorporating this or other proposed U.S. EPA revisions at this time. Proposed changes to the federal rule may be changed before they are finalized. In addition, ARB believes it important to review all final U.S. EPA changes for implications on ARB control programs, particularly the cap-and-trade program, if incorporated into ARB's requirements. After U.S. EPA takes final action and this review is completed, ARB will look for an opportunity to incorporate any appropriate changes in a subsequent regulatory action. ARB remains committed

to working with stakeholders to ensure, to the degree possible, that California GHG reporting regulations are harmonized with finalized U.S. EPA reporting requirements.

W-20. Agree With Attachment C of WSPA Comments

Comment: We have numerous concerns regarding details relating to the oil and gas production sector. But as we read through the comments filed by the Western States Petroleum Association August 10, 2011, we believe that they have captured the most salient issues in their Attachment C: Issues Specific to Upstream Operations Oil and Gas (Petroleum and Natural Gas). As a result, CIPA would like to associate ourselves with their comments contained in Attachment C of the WSPA 8/10/11 filing on Mandatory Reporting. [FF 42.03 – CIPA]

Response: Since the commenter is generally referring to comments made by WSPA, and it is unclear which comments specifically the commenter is associating itself with, the commenter is directed to ARB's responses to WSPA comments as contained in this document.

W-21. Determination of a Closed Loop System

Comment: Since no system is 100% leak free 100% of the time, what is the definition of “a closed loop system without any leakage to the atmosphere”? Can such a system include a water storage or surge tank that is connected to a typical oilfield vapor recovery system upstream of the re-injection pumps (and which may vent to atmosphere via a pressure relief valve when process conditions are abnormal)? Does a system (even if it does not include any tanks) qualify if it has an occasional leak (e.g., water with dissolved gases dripping from a valve stem or flange)? [FF 43.03 – MS]

Response: Section 95153(v)(2) has been modified and the text referred to by the commenter has been deleted.

X. Other 45-Day Comments Received

G. Other 45-Day Comments Received

X-1. Adaptive Management

Comment: Adaptive Management. We understand that mitigation of environmental impacts resulting from the Cap and Trade rule is expected to rely on an adaptive management program, which in turn will depend in part upon the information collected pursuant to the MRR. However, we point out that it is impossible to determine, prior to the development of the specific benchmarks and performance standards (e.g. the standards being developed in the LCFS Sustainability Working Group) required to make an adaptive management program effective, the extent to which the information collected pursuant to the

MRR is adequate to implement that program. While our organizations will likely have additional recommendations with respect to this policy, especially in the context of the cap and trade regulation, we urge ARB to include a regular review of the forest biomass data it collects to determine if, among other things, increasing amounts or different types of woody biomass are being collected over time from the same locations. These reviews should also include any new scientific information, findings or methods that could enhance the analysis and understanding of the impacts that woody biomass utilization may have on greenhouse gas emissions and ecological sustainability and inform the policy regarding the most appropriate treatment of woody biomass in the cap and trade regulations. Finally, these reviews should be accompanied by an opportunity for review and input by outside experts and members of the public. [FF 10.03 – EC]

Response: ARB agrees that it is important to evaluate collected data, and consistent with current practice, will share non-confidential data with the public. No change to the regulation is needed.

15-DAY COMMENTS SECOND RELEASE AND STAFF RESPONSES

Y. Subarticle 1. Applicability, Definitions, General Requirements, Enforcement (§95100 – §95109)

§95101 Applicability and General Subarticle 1 Comments

Y-1. Consistency with U.S. EPA Changes

Comment: ARB Should Develop A Process To Ensure Consistency With Evolving EPA GHG Reporting Regulations. The proposed amendment to extend the April 1 reporting date to April 10 is a beneficial change to the MRR regulation. This change was made to avoid the ARB reporting deadline conflict with the federal greenhouse gas reporting deadline. This amendment is similar to other modifications ARB has made to harmonize the MRR with the EPA regulation. In particular, ARB has harmonized the majority of the Subarticle 5 regulation with the EPA regulation in 40 CFR Part 98, Subpart W, which PG&E supports. In addition to the changes that ARB has incorporated to the MRR to make the regulation consistent with EPA requirements, ARB should recognize that the EPA regulation is still being revised. For example, EPA has published proposed technical revisions to the regulation and has proposed to extend the date of when the first reports are due to September 30, 2012 from March 31, 2012. As EPA continues to modify its regulation, ARB should develop a process where the comparable sections of the MRR can also be updated in a timely manner. For example, if EPA modifies the date on which 2012 reports are due, ARB should allow for a similar change to 2012 reports under the MRR. Although there are good reasons for not adopting changes to the EPA regulations that have yet to be approved, data reported under both regulations should be consistent. If the

phrase “as amended” is added to the end of section 95100.5(c), the data reported to EPA and ARB could be consistent because it would allow reporting entities to use future approved updates to the EPA regulation. Potential language for this section is provided below: “……November 30, 2010, December 17, 2010, and April 25, 2011, as amended.” [SF 14.03 – PGE]

Response: ARB recognizes that additional changes will be made to the U.S. EPA regulation, and will consider those changes when finalized as part of future amendments to our regulation. California’s regulatory procedures do not allow ARB to incorporate future U.S. EPA revisions as part of the current regulatory action. In addition, ARB will need to consider each change in light of ARB emissions inventory and control program needs.

Y-2. Obligation to Report for ARB versus U.S. EPA Requirements

Comment: CARB has endeavored to mimic the mandatory reporting applicability and calculation methodology of the U.S. EPA Mandatory Reporting Rule in many ways. However, in one aspect of the reporting rule relevant to our operations in the state, there appears to be a critical difference. When operational control is shared between entities, CARB’s assignment of reporting (and hence compliance allowance retirement) obligation shifts to the entity holding the permit to operate from the relevant air pollution control authority. The U.S. EPA MRR does not have such a provision, making the obligation to report rest solely on the owner/operator of a facility. With the modifications proposed to the State MRR, particularly under section 95114(a) which now is identical to the EPA MRR language [Subpart P of 40 CFR Part 98 section 98.160(c)], some uncertainty as to the State’s intent has been created. We continue to seek clarifying language (or an explicit CARB applicability determination) that, notwithstanding the different interpretation by U.S. EPA, the responsibility for developing, submitting and certifying the GHG emissions data report under Article 2, section 95104 of Title 17 and, subsequently, the obligation to satisfy an emission compliance obligation under Article 5, section 95811(a), rests with the entity holding the permit to operate under the conditions described within the specific definitions of “Operational Control” under section 95102 and “Operator” under section 95802; and the regulatory primacy stated under section 95000.5(d)(4). [SF C&T 97 – AP]

Response: The commenter has correctly identified a difference in specified reporting responsibility in the ARB and U.S. EPA regulations. Operational control remains paramount in the ARB regulation. And where such control is shared, the definition of operational control in section 95102 indeed specifies the entity holding the permit to operate as the responsible party.

Y-3. ARB Authority

Comment: We do not understand your authority over 40 CFR Parts 75 and Parts 98. We do not understand the regulatory agency over such data as the law appears to really be the Clean Air Act. [SF 18.01 – JD]

Response: The comment is not seeking specific modifications and is outside the scope of the changes proposed in ARB's 15-day notice. However, ARB notes that in incorporating provisions from the Code of Federal Regulations, ARB is not necessarily extending or asserting new jurisdiction over any sources; instead, it is making those provisions part of ARB's regulation pursuant to the incorporation by reference provisions of the Administrative Procedure Act (Government Code section 11340 et seq.) and Title 1, California Code of Regulations, section 20. ARB maintains authority under state and federal law of the entities subject to the MRR.

Y-4. Authority Over BPA

Comment: Bonneville Power Administration (BPA) previously submitted written comments on the 15-day comment period for the mandatory reporting regulation and the cap-and-trade regulation. ARB has not acknowledged or responded to BPA's comments. WAPA submitted similar comments which ARB has also failed to address. BPA will not repeat its earlier comments, but hereby incorporates them by reference. BPA again requests that ARB act on its comments, as set forth in its August 1, 2011 filing. As BPA has previously discussed with ARB staff, it is BPA's intent to voluntarily report on GHG emissions. BPA strongly disagrees with ARB's suggestions in its greenhouse gas reporting rules and cap-and-trade rules that it has "authority" to regulate BPA and that BPA is "required" to comply. BPA wishes to make clear that BPA is participating in California's GHG reporting program and cap-and-trade program purely on a voluntary basis, and BPA is not conceding that California has any jurisdiction over BPA. BPA files this letter to perserve that position. [SF 02.01 – BPA]

Response: See Response to A-40. ARB notes that pursuant to Government Code section 11346.9(a)(3), ARB must respond to each objection or recommendation received during any public comment period, and this FSOR contains its responses. As such, ARB disagrees with the commenter's assertion that ARB has not acknowledged or responded to the commenter's concerns.

Y-5. Authority Over WAPA

Comment: Western Area Power Administration (Western) previously submitted written comments in the above proposed rules. Western will not repeat its earlier comments, but hereby incorporates them by reference. Western continues to express concerns that California Air Resource Board (CARB) is requiring federal agencies to consent to state jurisdiction. For instance, Section 96022 provides: Any party that participates in the cap-and-trade program is subject to the jurisdiction of the State of California. These types of provisions could significantly impact the ability of federal agencies to voluntarily comply with CARB's proposed rules. Federal agencies are unable to consent to state jurisdiction without an express waiver of sovereign immunity. Only the U.S. Congress (with consent by the President) can waive sovereign immunity. Western continues to encourage CARB to modify these provisions and acknowledge that federal agencies are not

subject to state jurisdiction. While Western continues to disagree with CARB's suggestions in its greenhouse gas reporting rules and cap and trade rules that CARB has "authority" to regulate Western and that Western is "required" to comply, Western supports the state initiatives and has attempted to voluntarily participate in the state's greenhouse gas (GHG) programs. Western understands the importance of having all in-state utilities participate in the GHG programs and to this end Western has had numerous conversations with and has provided data to CARB staff. While Western welcomes continued interaction with CARB, Western wishes to make clear that Western's participation in CARB's GHG reporting program and cap and trade programs are on a voluntary basis and Western is not conceding that CARB has jurisdiction over Western in these matters. After CARB issues its final rule, Western will evaluate if, how, and to what extent, Western can voluntarily participate in CARB's GHG programs. [SF 03.01 – WAPA]

Response: See Response to A-40.

Y-6. Rule Complexity and Future Changes

Comment: As we come closer to the deadline for submitting the rule to the Office of Administrative Law, we want to express our concern about the 15-day comment process and the need for further rule changes and updates next year. The rule is extremely complex and it will have a large impact on the California economy. In that regard, we would request the California Air Resources Board (CARB) include in the Final Statement of Reasons (FSOR) a schedule by which workshops and needed revisions will occur so the public can schedule and provide feedback in order for the staff to hear and incorporate reasonable changes to the rule. [SF 06.01 – ABIG]

Response: ARB believes legal requirements pursuant to the final MRR amendment are clear. Consistent with ARB practices in implementing the current MRR, ARB will continue to work with reporting entities to ensure successful program implementation. Although it is too soon to specify a schedule, ARB continually evaluates its programs and will determine when future amendments are appropriate.

Y-7. Continued Harmonization for Upstream Sources

Comment: Occidental requests that for the upstream oil and gas production sector: (1) ARB harmonize its rules to the greatest extent possible with parallel EPA provisions, and (2) ARB staff provide a publicly noticed communication of their determination of the impact on the MRR whenever U.S. EPA adopts a change in the Subpart W rule, even if ARB staff determines that no change to the MRR is necessary. This request is made because in California, Occidental and other upstream oil and gas production reporting entities must comply with both state and federal regulatory programs for greenhouse gas emissions reporting. Due to the nature and scope of the changes already proposed to U.S. EPA Subpart W and those still subject to ongoing litigation, further changes to the

MRR will very likely be required to adopt and incorporate changes to the Subpart W rule. Accordingly, Occidental believes it is imperative for ARB to harmonize its greenhouse gas emission reporting provisions for upstream oil and gas productions with parallel U.S. EPA provisions. Failing to do so will create confusion in the calculation of emissions covered one way by the federal rules and another way by the state rules, which will impose an unnecessary administrative burden on California upstream operators. [SF 15.01 – OP]

Response: ARB will continue to review changes to Subpart W approved by U.S. EPA, and will incorporate, when feasible and appropriate, changes through subsequent rulemaking that are consistent with California's emissions inventory and GHG control program needs. Because a separate regulatory process will be needed to re-align the regulations, it is likely there will be periods where separate state and federal requirements apply. ARB will assist upstream oil and gas sources in understanding and responding to those differences. As there will be no immediate impacts from U.S. EPA changes on California's reporting regulation, public notification of such impacts is not necessary.

Y-8. Applicability of Electricity Generating Facilities

Comment: ARB should clarify that electric generating facilities that are exempt from reporting as part of the Acid Rain Program will not be subject to reporting unless they have emissions of more than 10,000 metric tons CO_2e per year. Specific language is proposed in CALPINE's comment. [SF 19.02 - CALPINE]

Response: The revised MRR adopted the source categories in Tables A-4 to A-5 in Subpart A of 40 CFR Part 98. Under this framework, facilities with stationary fuel combustion sources but without any industry-specific emission sources covered by Subparts D to QQ (and other applicable source categories that may be added in the future) must report under Subpart C. Because electricity generating facilities that are not in the Acid Rain Program are stationary fuel combustion sources, they are therefore subject to Subpart C and have a reporting threshold of 10,000 $MTCO_2e$.

Y-9. Electric Power Entities, Applicability

Comment: 95101(d): The overlap in applicability between Electricity Importers and Retail Providers may result in duplicative reporting and needs to be resolved. Under the original Mandatory Reporting Regulation (effective January 1, 2009), Retail Providers and Marketers were the entities responsible for reporting electricity imports, exports, electricity wheeled through California, and electricity transactions within California. Under the proposed amended Mandatory Reporting Regulation, the entity responsible for reporting is being changed to "Electric Power Entities", which consists of: 1) Electricity importers and exporters 2) Retail Providers and Multi-Jurisdictional Retail Providers 3) California Department of Water Resources 4) Western Area Power Administration 5) Bonneville Power Administration. The definitions of "Electricity Importer" and "Electricity Exporter" include both Retail Providers and Marketers, and since

Marketers have been deleted from the Applicability section, Retail Providers should also be deleted from the Applicability section to avoid overlapping responsibility and confusion over who is responsible for reporting. For example, if electricity is imported by another entity on behalf of a Retail Provider, it is unclear who would be responsible for reporting the import since both Retail Providers and Electricity Importers are listed under "Electric Power Entities" and are subject to the reporting requirements. This clarification will help to avoid duplicative reporting and compliance obligations and enhance the integrity of the program. [SF 11.08 – LADWP]

95102(a)(233): A Marketer and Retail Provider are not mutually exclusive. The definition of Marketer states "…and is not a retail provider". This is not a true statement, as some marketers are also retail providers. Therefore, this statement should be deleted. [SF 11.14 – LADWP]

Response: ARB did not make the suggested changes because it believes the various reporting responsibilities of the different electric power entities are clear in the context of the regulation. The electric power entities are listed in applicability subsection 95101(d), to indicate that each has unique reporting requirements pursuant to section 95111. The excerpt is provided below for reference.

(d) Electric Power Entities. The entities listed below are required to report under this article:
(1) Electricity importers and exporters, as defined in section 95102(a);
(2) Retail providers, including multi-jurisdictional retail providers, as defined in section 95102(a);
(3) California Department of Water Resources (DWR);
(4) Western Area Power Administration (WAPA);(5) Bonneville Power Administration (BPA).

The definitions of "electricity importer" and "electricity exporter" in section 95102(a) clearly include marketers and retail providers and assure no duplication in reported GHG emissions for imports and exports. It is understood that a subset of retail providers import and export electricity in the same manner as marketers. By definition, the first category includes all electric power entities listed when they import or export electricity.

The next three categories, numbers (2)-(4), have supplementary reporting requirements specific to their operations in California. The last entity, BPA, has the option to report additional data if they would like ARB to calculate a more precise emission factor for the electricity they import into California and supply to others who import BPA system power into California.

Y-10. Provide Notification of EPA Changes Affecting MRR
Comment: WSPA requests that ARB provide a noticed communication of staffs evaluation of each EPA change to Subpart W as it affects the MRR. [SF 09.16 - WSPA]

Response: See Response to Y-7.

Y-11. Applicability: Biomass-Derived Fuel CO_2 Emissions
Comment: USEPA excludes "carbon dioxide emissions from the combustion of biomass, but include[s] emissions of CH_4 and N_2O from biomass combustion" in the GHG emission calculation for comparison to the federal reporting threshold (40 CFR §98.2(b)(2)). As such, CARB should remove the inclusion of CO_2 from biomass combustion in the 10,000 metric ton reporting threshold as is proposed by §95101(b)(4). [SF 24.01 - CCCSD]

Response: See Responses to A-2 and A-4.

Y-12. Applicability: Biomass-Derived Fuel CO_2 Emissions
Comment: USEPA has a reporting threshold of 25,00 metric tons of CO_2e for facilities that are not specifically listed in their Tables A-3 and A-4 and have aggregate maximum rated heat input capacity of 20 mmBTU/hr or greater (40 CFR §98.2(a)(3)). As such, CARB should replace the 10,000 metric ton reporting threshold proposed in §95101(b)(3) to 25,000 metric tons of CO_2e. [SF 24.03 - CCCSD]

Response: See Response to A-14.

§95102 Definitions

Y-13. Heat Transfer Fluid
Comment: 3M recognizes that the definition of fluorinated GHG is consistent with the U.S. EPA definition and that both definitions exempt materials with a vapor pressure of less than 1 mmHg at 25C. Please be aware that the vapor pressure threshold in this definition raised concerns because EPA also defined, "heat transfer fluids" and tied the definition of a heat transfer fluid to the definition of a fluorinated GHG. The concern, simply stated, is that heat transfer fluids are used at elevated temperatures so their vapor pressures at 25C are not indicative of emission potential. EPA has recently proposed amending the definition of a heat transfer fluid to address this concern. EPA's proposal is attached (pg 56022). 3M calls CARB's attention to this issue in the event CARB, in the future, also defines heat transfer fluid. [SF 01.01 – 3M]

Response: The comment does not seek any modifications to the MRR. However, ARB notes the comment and will consider it further if heat transfer fluid is defined in future amendments to the regulation.

Y-14. "Direct Delivery of Electricity" Definition

Comment: Subsection 95102 (a)(108): "Direct Delivery of Electricity"
SCE is offering additional language to improve the subject definition. These modifications are designed to prevent the inappropriate assignment of a GHG reporting obligation to a generation facility located in a California balancing authority, but outside California, when the output from such facility is not delivered to California. Specifically, SCE recommends the insertion of the bold language shown below into subsections (A) and (B):

(108) "Direct delivery of electricity" or "directly delivered" means electricity that meets any of the following criteria:

(A) The facility has a first point of interconnection with a California balancing authority and the output from the facility is delivered to California;

(B) The facility has a first point of interconnection with distribution facilities within a California balancing authority area and the output from the facility is used to serve end users located in California. [SF 26.03—SCE]

Response: ARB appreciates the suggested modifications designed to prevent the inappropriate assignment of a GHG reporting obligation to a generation facility located in a California balancing authority, but outside California. However, ARB decided modifications are not needed, because the definition of "direct delivery of electricity" is only used to claim "imported electricity" from specified sources. GHG emissions are reported only for the output of an out-of-state generating facility that is imported into California or when the information is part of the supplementary reporting requirements for retail providers (not multi-jurisdictional) pursuant to subsection 95111(c).

Y-15. "Direct Delivery of Electricity" Definition and Redelivery Arrangements

Comment: 95102(a)(108): The definition of "Direct Delivery of Electricity" should include electricity delivered via a redelivery agreement. The definition of "Direct Delivery of Electricity" should include electricity scheduled for delivery from the specified source into a California balancing authority via a redelivery agreement. This would enable renewable electricity imported from wind generating facilities to be reported as a specified import with zero GHG emissions. Based on the revised reporting requirements for specified imports in Section 95111 of the Mandatory Reporting Regulation, imported electricity must meet both the definition of "specified source" and "direct delivery of electricity" to be reported as a specified import. Imported electricity that does not meet both of these definitions has to be reported as an unspecified import with default emissions. Assume, for example, that renewable electricity produced by wind generating facilities in the PNW is purchased directly from a specified out-of-state eligible renewable energy resource by a California retail provider (such as LADWP). The renewable electricity is purchased by the California Retail Provider at the

generating facility's busbar. However, because the electricity is firmed and shaped before it is delivered into California, it does not meet the current definition of "Direct Delivery of Electricity". As a result, this renewable electricity cannot be reported as a specified import and instead must be reported as an unspecified import with default emissions. To enable Retail Providers to report imported wind energy as a specified import, LADWP recommends the provided revision to the definition of "Direct Delivery of Electricity". [SF 11.09 – LADWP]

Response: The definition of "directly delivered" is intended to be restrictive. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions. See also Response to Y-21 regarding the "specified source" definition and compliance obligation on renewable energy. As such, ARB declines to make the requested modification.

Y-16. "Generation Providing Entity" Definition and Reporting Entity

Comment: Subsection 95102 (a)(182) "Generation Providing Entity": The subject definition provides, in part, that "a facility or generating unit operator, full or partial owner, sole party to a tolling agreement with the owner, or exclusive marketer is recognized by ARB as a generation providing entity." In SCE's comments on the original proposed 15-day modifications regarding this topic, SCE had requested ARB to clarify its underlying intent behind this portion of the subject definition. The September 2011 Proposed Modifications do not address this issue, or provide the requisite clarification. SCE requests that ARB provide an explanation that this definition clarifies who is responsible to report emissions related to out-of-state tolling arrangements, and that this definition does not create a duplicative reporting requirement for in-state tolling arrangements (whereby both the facility owner as well as the counterparty to a tolling arrangement are required to report the emissions related to the same underlying facility), potentially creating confusion as to who is responsible for the facility's compliance with the cap-and-trade program. [SF 26.01--SCE]

Response: The term "generation providing entity (GPE)" is not used in the cap-and-trade regulation. Pursuant to section 95811 of the cap-and-trade regulation, covered entities are responsible for compliance. First deliverers of electricity are covered entities:

(1) Electricity generating facilities: the operator of an electricity generating facility located in California; or
(2) Electricity importers.

Pursuant to the MRR, a GPE does not have reporting requirements unless they first meet one of the following definitions:

- *facility operator* for electricity generating *facilities* located inside California,
- *electricity importer* for *imported electricity*, or
- *electricity exporter* for *exported electricity*.

The italicized terms above are defined pursuant to section 95102(a).

The defined term “GPE” is only used in the following context to describe an electricity importer (or exporter) who is a GPE for the specified facility. When electricity generated by a facility located outside California is directly delivered to California, and the electricity importer (1) is a Generation Providing Entity (GPE) defined pursuant to MRR section 95102(a) or (2) has a written power contract for electricity generated by the facility, the electricity importer must report the delivery as a specified import, pursuant to sections 95111(a)(4) and 95111(g)(3). The electricity importer must register the specified source with ARB, pursuant to section 95111(g)(1), to receive a facility-specific emission factor calculated by the Executive Officer, pursuant to subsection 95111(b)(2).

Y-17. “Generation Providing Entity” Definition and Compliance Obligation
Comment: 95102(a)(182): The definition of “Generation Providing Entity” is unclear as to who has the compliance obligation. The definition of “Generation Providing Entity” points to multiple responsible entities, which can lead to unintended interpretations and confusion over who has the compliance obligation. To eliminate any possible confusion, operator and scheduling coordinator should be deleted from this definition, and the “Generation Providing Entity” should be simply the PSE with prevailing rights to claim electricity from a specified source. [SF 11.13 – LADWP]

Response: See Response to Y-16 regarding “generation providing entity” definition.

Y-18. “Tolling Agreement” Definition
Comment: MSCG reiterates our comment from the prior version regarding the use of the term “rent” in describing a tolling agreement. We believe this is an inaccurate description. A tolling agreement is a “fee for service” contract. It is not a facility rental agreement. [SF 10.03 – MSCG]

Response: ARB worked with stakeholders who have tolling agreements with electricity generation facilities to adequately define this term for sole use within the definition of “generation providing entity (GPE).” Electricity importers or exporters who are GPEs have prevailing rights to claim specified electricity from a particular facility. Importers or exporters who are GPEs must provide additional data to ARB for the facilities they specify.

No change was made to the definition of “tolling agreement,” since ARB believes “fee for service” arrangements also are clearly included within the definition of a “GPE,” pursuant to section 95102(a) and provided below for reference. A “fee for service contract” is clearly “affiliated or contractually bound generation.”

> Section 95102(a). “Generation providing entity” or “GPE” means a merchant selling energy from owned, affiliated, or contractually bound generation. For purposes of reporting delivered electricity pursuant to

section 95111, a GPE is the PSE, operator, or scheduling coordinator with prevailing rights to claim electricity from a specified source. A facility or generating unit operator, full or partial owner, sole party to a tolling agreement with the owner, or exclusive marketer is recognized by ARB as a generation providing entity.

ARB understands a “tolling agreement” describes an arrangement whereby the electricity purchaser supplies the fuel and receives the resulting power output of the generation. This arrangement, as defined, is clearly “affiliated or contractually bound generation.”

Y-19. “Unspecified Source” Definition
Comment: Section 95102(a)(399). PG&E appreciates ARB’s efforts to clarify that the compliance obligation is based on the source of electricity that is specified at the time the transaction is executed. PG&E suggests the provided revisions to the definition of “Unspecified Source of Electricity” to further clarify the intent of the regulation.

“Unspecified source of electricity” or “unspecified source” means electricity procured and delivered without ~~limitation at the time of transaction~~ reference to a specific facility’s or unit’s generation at the time of transaction, regardless of the specification in the corresponding NERC E-Tag, settlements data, or any other applicable information. Unspecified sources contribute to the bulk system power pool and typically are dispatchable, marginal resources that do not serve baseload. [SF 14.02 – PGE]

Response: ARB decided not to make the change. ARB understands a NERC e-Tag may document that a unit-contingent delivery ultimately fulfilled a power purchase agreement that did not require electricity from a specified source; however, the verifier may review the settlements data and any other applicable information to confirm whether the imported or exported electricity is unspecified.

Y-20. “Electricity Importer” and “GPE” Definitions Create New Disadvantaged Parties
Comment: Changes to the definitions create new disadvantaged parties and should be rejected. The modified regulation does not adequately address the issues associated with carbon cost recovery by entities obligated under long term contracts. Parties have commented that renegotiation is not possible in situations where one party is disadvantaged. There is no incentive for the advantaged party to negotiate. The recently released modifications to the mandatory reporting regulation further exacerbate the issue by creating a new disadvantaged party. The definitions for "electricity importer" and "generation providing entity" disregard the role of a scheduling coordinator (SC) and impose obligations where none exists. A SC simply provides a communication service between the facility operator and the California System Operator. It has a contract to perform scheduling and settlement services and is merely a conduit of dollars between

the generator and the ISO; the SC does not have a mechanism to recover carbon costs.

Only the facility operator should be considered the sole importer for out-of-state facilities that are directly connected to a California balancing area authority. The facility operator performs under an ISO participating generator agreement, and is an ISO dispatchable resource; it should be treated no differently than any other in-state resources. Recommend modifying the definitions of ""Electricity importers" and "Generation providing entity. [SF 13.01 – SHELL]

Response: No changes were made to the definition of "GPE." As explained in response to comment Y-16, regarding "GPE" definition and reporting entity, ARB does not agree that any disadvantaged parties are created by this definition.

ARB decided not to limit responsibility to the operator of an out-of-state facility as suggested by the commenter in the case where NERC e-Tags are not created. In the case where the out-of-state facility is directly connected to the California grid operated by CAISO, the responsible entity is "the facility operator or scheduling coordinator." ARB holds both entities responsible and it is the responsibility of the two parties to decide who will act as the importer for compliance purposes pursuant to the MRR and the cap-and-trade regulation. This approach is consistent with the current MRR, section 95111(b)(2)(B)-(C), which requires retail providers and marketers to report wholesale power imported into the state of California for which the "retail provider or marketer was the deliverer to the first point of delivery in California." The term marketer is defined pursuant to section 95102(a) as "a purchasing/selling entity … that is the purchaser/seller at the first point of delivery in California for electric power imported into California…."

Y-21. "Electricity Importer" Definition and Shift From Title Holder to Deliverer
Comment: The proposed amendments to the definition of "Electricity Importer" are problematic, and need to be thoroughly vetted before adoption. The proposed amendments to the definition of "Electricity Importer" are significant in that they will shift responsibility for reporting imported electricity and by extension, the associated cap-and-trade compliance obligation, from the entity that holds title to the imported electricity to the entity that delivers the electricity into California. Placing the compliance burden on the transportation provider instead of the entity that holds title to the power is analogous to the compliance responsibility being placed on the trucking company rather than the owner of the cargo being transported, even though the emissions subject to the compliance obligation are from generating the cargo (the electricity). This is neither appropriate nor consistent with the joint CPUC/CEC recommendations to ARB regarding including the electricity sector in a cap-and-trade program and the point of regulation. Provided for reference is the summary of the CPUC/CEC recommendation regarding the point of regulation (Decision Number 08-03-018 dated March 13, 2008, page 72). [SF 11.11 – LADWP]

Response: ARB decided the definition of “electricity importer” is appropriate and the clarifications were a necessary improvement. The clarifications made in the most recent public comment period were needed to answer electricity importers’ continuing questions as to whether they have a reporting responsibility. Some confusion resulted from cases when a purchasing-selling entity or a scheduling coordinator acts as an agent for another entity that owns the electricity. In addition, some marketers that sell electricity into the CAISO markets claim they do not hold title to the energy they schedule to final points of delivery in California.

The clarified definition is consistent with the current MRR for most transactions. The point of regulation has not changed for transactions scheduled via NERC e-Tags—bilateral transactions and CAISO market transactions. ARB continues to recognize the documented purchasing-selling entity (PSE) on the last physical path segment crossing the California border as the responsible entity. The current MRR, sections 95111(b)(2)(B)-(C), requires retail providers and marketers to report wholesale power imported into the state of California for which the “retail provider or marketer was the deliverer to the first point of delivery in California.”

The commenter addresses a small fraction of transactions, in which the imported electricity is not documented via NERC e-Tags and the scheduling coordinators act as agents of the electricity owners or facility operators. ARB decided holding the “facility operator or scheduling coordinator” responsible is consistent with holding purchasing-selling entities (PSEs) responsible. PSEs also may act as agents of electricity owners. This point of regulation is also consistent with holding in-state facility operators responsible whether or not they also own the electricity.

We understand the joint recommendation and the early focus on the entity that owns the electricity as it is delivered to the grid in California. ARB’s decision is consistent in meeting the criteria listed in the final CPUC/CEC decision:

1) Environmental integrity.
2) Compatibility with/expandability to potential regional and/or national GHG emissions cap-and-trade markets.
3) Accuracy and ease of reporting, tracking, and verifying GHG emissions reductions to ensure that reductions are real, quantifiable, verifiable, and valid.
4) Compatibility with ongoing reforms of wholesale and retail energy markets, including potential interactions with CAISO’s markets and the Market Restructuring and Technology Upgrade, while keeping in mind that some California entities are less involved with CAISO markets.
5) Legal issues.

Y-22. "Electricity Importer" Definition and Point of Regulation

Comment: The latest proposed amendments to the definition of Electricity Importer are a significant change in that these changes would shift the responsibility for reporting imported electricity and by extension, the associated cap-and-trade compliance obligation from the entity that owns the electricity to the entity that delivers the electricity into California. In addition, a new sentence was inserted that would make the facility operator or scheduling coordinator responsible for reporting electricity imported from out-of-state generating facilities that have a first point of interconnection with a California balancing authority. Placing compliance responsibility on the transportation provider or the scheduling entity is neither appropriate nor consistent with the joint CPUC/CEC recommendations to ARB on the point of regulation for the electric sector under a cap-and-trade program. The proposed changes would create significant impacts and consequences and should be tabled. Significant changes such as these should be thoroughly vetted with stakeholders through the public workshop process, rather than being inserted as a last minute change into the Mandatory Reporting Regulation. [SF 11.04 – LADWP]

In addition to shifting the point of regulation from the entity that holds title to the power to the entity that delivers the power, the following sentence was added to the definition of Electricity Importer as part of the 2nd 15-day changes package. For facilities physically located outside the state of California with the first point of interconnection to a California balancing authority's transmission and distribution system, the importer is the facility operator or scheduling coordinator.

This new sentence would apply to a number of out-of-state generating facilities with a first point of interconnection with a California balancing authority, including Intermountain Generating Station, Milford Wind Farm, the Boulder Canyon Project (Hoover), Navajo Generating Station, and Palo Verde Generating Station. Adding this sentence creates issues and uncertainty with regards to who is responsible for reporting imports from specified out-of-state generating facilities. [SF 11.12a—LADWP]

If the "scheduling entity" is responsible for reporting imported electricity that it schedules on behalf of the electricity owner(s), the emissions for the imported electricity will be included in the scheduling entity's report, and the associated compliance obligation will be assigned to the scheduling entity rather than to the entities that own the electricity. For example, if Retail Provider A acts as the scheduling entity for Retail Providers B and C, emissions for electricity belonging to Retail Providers B and C would be included in Retail Provider A's report, and Retail Provider A would be responsible for the emissions compliance obligation. However, Retail Providers B and C were allocated the allowances to cover those emissions. This scenario is not a desirable outcome. Responsibility for reporting electricity imports and the associated compliance obligation should be placed on the entity that owns the electricity, rather than on the scheduling entity that does not own the electricity nor has allowances to cover the emissions. If the

scheduling entity has to purchase allowances to cover the emissions, there is no guarantee that the scheduling entity would be able to pass the cost of allowances through to the owner of the electricity. [SF 11.12c—LADWP]

Furthermore, assigning responsibility for imported electricity to scheduling entities and transportation providers will not provide emissions data that is useful to the public. Under the California Climate Action Registry reporting protocols on which the ARB Mandatory Reporting Regulation is supposed to be based, Retail Providers calculated their entity CO_2 intensity metric (lbs CO_2/MWh) based on their total portfolio of electricity generating resources (both owned and purchased power). This metric could be used by the utility's customers to calculate their own carbon footprint. The public will likely want to use emissions data collected under the Mandatory Reporting Regulation for the same purpose. However, assigning responsibility for emissions to entities that do not own the electricity will skew the reports and not reflect each entity's carbon footprint. [SF 11.12d—LADWP]

In summary, the latest proposed amendments to the definition of Electricity Importer create significant issues and consequences. LADWP recommends retaining the previous language and not incorporating the proposed amendments. LADWP requests this matter be tabled and deferred to a future rulemaking proceeding where it can be thoroughly vetted with stakeholders, rather than incorporating this as a last minute change into the mandatory reporting regulation without going through the public workshop and vetting process. [SF 11.12e – LADWP]

Response: ARB decided the definition of "electricity importer" is appropriate, including as it applies to imported electricity that is not documented by NERC e-Tags. The clarifications made in the most recent public comment period were needed to address electricity importers' questions as to whether they have a reporting responsibility and were discussed at an ARB technical meeting with stakeholders on August 26, prior to the second modification. See response to comment Y-21.

NERC e-Tags are not typically used when electricity does not cross balancing authority areas, as is the case for electricity generated at Intermountain Generating Station in Utah and delivered to LADWP, Burbank, and Glendale solely within LADWP's balancing authority area. Because the other owners of Intermountain power, Anaheim, Riverside, and Pasadena, receive their shares via delivery into the CAISO balancing authority area, the imports are documented with e-Tags, and the PSE on the last physical path segment crossing the California border has responsibility.

In the case of Intermountain deliveries solely within LADWP's balancing authority area, ARB holds both the scheduling coordinator and the facility operator responsible. It is the responsibility of the two parties to decide who will act as the importer for compliance purposes pursuant to the MRR and the cap-and-trade

regulation. LADWP, Glendale, and Burbank can work together to ensure appropriate reimbursement. Whether LADWP or a marketer imports electricity for use by Burbank and Glendale, ARB expects compliance costs to be passed through to the end users. The electricity distribution utilities have been allocated free allowances based on a separate method agreed to by the utilities that considered direct and indirect compliance cost burden.

To the extent electricity from the Milford Wind Farm is delivered on the same transmission as Intermountain and does not result in e-Tags, the reporting responsibility belongs to the scheduling coordinator or facility operator.

It is not clear whether LADWP receives electricity into its balancing authority area from the Boulder Canyon Project (Hoover), Navajo Generating Station, and Palo Verde Generating Station without e-Tags. Typically electricity from these facilities crosses balancing authority areas and must be tagged. Hoover is in Nevada and Navajo and Palo Verde are in Arizona.

The load-based framework used by utilities to calculate a carbon footprint was not the preferred regulatory framework, consistent with the reasons included in the CPUC/CEC Joint Decision (Decision Number 08-03-018) referenced by the commenter. The first deliverer framework selected and supported by this amendment to the MRR is not intended to be used as a basis for utility customers to calculate their own carbon footprints. As explained in ARB's *2007 Staff Report* for the original MRR, which was referenced in the Staff Report for the modified MRR, ARB used the standards and protocols of the voluntary California Climate Action Registry (CCAR) to the extent feasible and appropriate. Modifications have been necessary as ARB has the responsibility to implement a mandatory reporting program.

Y-23. "Electricity Importer" Definition and First Point of Interconnection

Comment: In cases where the out-of-state facility connects with a California balancing authority, it is unclear whether the entity responsible for reporting the import is the entity that schedules the electricity into California, or the entity identified as the PSE on the physical path of the NERC e-Tag when the electricity crosses the California border.

Is the Scheduling Entity identified on the e-Tag responsible for reporting the import? Does the ARB MRR apply to Scheduling Entities?

The term "Scheduling Coordinator" applies only within CAISO, not outside of CAISO. [SF 11.12a—LADWP]

Response: The definition of "electricity importer" is clear regarding the responsible entity when NERC e-Tags are used. The PSE on the last physical path segment that crosses the California border is responsible. The "scheduling

entity" identified on NERC e-Tags is not the PSE, so the "scheduling entity" is not responsible pursuant to the MRR.

ARB is aware that the term "scheduling coordinator" is a defined term as used by CAISO. ARB intended the term "scheduling coordinator" used in the definition of "electricity importer" to be consistent with the CAISO definition. However, ARB concludes the term is also consistent with general usage in the wholesale electricity industry. Therefore, the term is sufficiently clear as it applies to the electricity imported into LADWP's balancing authority area that is not e-Tagged.

Y-20. "Electricity Importer" Definition and First Point of Interconnection
Comment: In cases where the out-of-state facility connects with a California balancing authority, it is unclear whether the entity responsible for reporting the import is the entity that schedules the electricity into California, or the entity identified as the PSE on the physical path of the NERC e-Tag when the electricity crosses the California border.

Is the Scheduling Entity identified on the e-Tag responsible for reporting the import? Does the ARB MRR apply to Scheduling Entities?

The term "Scheduling Coordinator" applies only within CAISO, not outside of CAISO. [SF 11.12a—LADWP]

Response: The definition of "electricity importer" is clear regarding the responsible entity when NERC e-Tags are used. The PSE on the last physical path segment that crosses the California border is responsible. The "scheduling entity" identified on NERC e-Tags is not the PSE, so the "scheduling entity" is not responsible under the MRR.

ARB is aware that the term "scheduling coordinator" is a defined term as used by CAISO. ARB intended the term "scheduling coordinator" used in the definition of "electricity importer" to be consistent with the CAISO definition. However, ARB concludes the term is also consistent with general usage in the wholesale electricity industry. Therefore, the term is sufficiently clear as it applies to the electricity imported into LADWP's balancing authority area that is not e-Tagged.

Y-21. "Specified Source" Definition and Compliance Obligation on Renewable Energy
Comment: The definition of "Specified Source" is still too restrictive, and may result in changing imports that previously were specified to unspecified, and imposing a cap-and-trade compliance obligation on imported renewable energy. This definition should be neutral when it comes to who delivers the electricity into California and focus solely on whether the electricity can be traced to a specific generating facility. [SF 11.05 – LADWP]

Under the original definition, renewable electricity from California eligible renewable resources and electricity from other specific generating facilities could

be reported as a specified import regardless of which entity delivered it into California. However, the amendments to this definition now require that "The reporting entity must have either full or partial ownership in the facility/unit or a written contract to procure electricity generated by that facility/unit", in order to report the import or export as from a specified generating facility. Requiring that the electricity importer or reporting entity have a direct relationship with the generating facility will change imports that previously were reported as specified to unspecified. For example, an entity that has an ownership share or power purchase contract with a particular generating facility may not have transmission rights to import the electricity, so they enter into a contract with another entity to import the electricity on their behalf. Under the original definition, this was considered a specified import. Under the revised definition, if the reporting entity (who delivers the electricity into California) does not a direct relationship (ownership or written contract to procure the electricity) with the generating facility, the import cannot be reported as specified and must instead be reported as an "unspecified import" with associated default emissions. This will result in inaccurate reporting, because default emissions will be assigned to zero emission renewable energy, or to electricity generated by high GHG emitting facilities, based solely on who "delivers" the electricity into California. This inaccuracy will carry over to the cap-and-trade compliance obligation, which is based on the emissions report. As a result, a cap-and-trade compliance obligation could be imposed on imported renewable electricity. To avoid these unintended consequences, the definition of "Specified Source" should be neutral when it comes to who delivers the electricity, and focus solely on whether or not the origin of the delivered electricity is known. California utilities have contractual arrangements with other entities to move electricity on their behalf. Those arrangements should have no bearing on reporting of emissions for imported or exported electricity. LADWP recommends that the definition of "Specified Source" be revised as provided. [SF 11.15 – LADWP]

Response: The definition of "specified source" is intended to be restrictive. Electricity, specified or unspecified, that is not directly delivered to California, defined pursuant to section 95102(a), is not included in statewide GHG emissions accounting. See also Response to Y-15.

A rigorous GHG emissions accounting protocol must be technology neutral, in that the focus is direct, source-based, emissions associated with electricity that is directly delivered. Recognizing firming-and-shaping arrangements would amount to special treatment of renewable energy resources. Recognizing firming-and-shaping for all resources would be impractical. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

The RPS adjustment applies to electricity that is not directly delivered to California, and therefore is not included in statewide GHG emissions accounting. The RPS adjustment is not a recognition of avoided emissions, but an adjustment to the compliance obligation to recognize the cost to comply with the

RPS program. ARB included the RPS adjustment for the specific purpose of reducing the cost of RPS compliance that would be born directly or indirectly by entities that must comply with California's RPS program. The adjustment is impartially applied to any electricity importer that meets the requirements in subsection 95852(b)(4) of the cap-and-trade regulation to deliver RPS electricity used for RPS compliance.

Y-22. "Specified Source" and "Written Power Contract" Definitions
Comment: Under the definition of "Specified source of electricity" (paragraph (364), the word "power" was omitted in front of the word "contract". This is inconsistent with the definition of "Specified source of electricity" contained in the cap and trade rule on page A-47. Also, the term "power contract" or "written power contract" are defined terms under MRR definition (301), while written contract is not defined. [SF 12.01 – SG]

Response: The definition "specified source" has the same meaning pursuant to section 95102(a) of the MRR as the meaning in section 95802(a) of the cap-and-trade regulation. The inadvertent omission of the word "power" does not change the meaning.

Y-23. Harmonization with CEC and CPUC Rulemakings
Comment: The CARB may want to harmonize its proposed regulations with those the California Energy Commission is considering in its proceeding under Docket 11-RPS-01, and those the California Public Utilities Commission is considering in its proceeding under Order Instituting Rulemaking, R.11-05-005. Both entities are currently receiving comments on the recently enacted California Renewable Energy Resources Act (sometimes referred to as "SB2 (1X)"). The CARB has the potential to impose penalties under the Public Utilities Code Section 399.30 (o). Rather than come up with different definitions, it may be more efficient for the regulated entities and the regulating authorities to provide similar definitions for the same concepts. [SF 11.10 – LADWP]

Response: The basis for rigorous statewide GHG emissions accounting is fundamentally different than increasing the amount of electricity generated from eligible renewable energy resources per year; therefore, harmonization is not applicable. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

Y-24. "Pipeline Quality Natural Gas"
Comment: Section 95102(a)(288). The term "pipeline quality natural gas" is used to define the characteristics of natural gas where the default conversion factor applies. When natural gas does not meet these characteristics, the reporting entity (with certain exceptions) must perform a monthly analysis of the gas constituents and use that information to perform a carbon content calculation. The requirement that pipeline quality natural gas be at least ninety percent methane by volume would narrow the number of sources that can apply a default

value to emissions calculations but would serve no other relevant purpose in either the MRR or the Cap and Trade regulation.1/ PG&E requests ARB change to use the term "pipeline natural gas," and eliminate the 90 percent methane requirement. [SF 14.01 – PGE]

Response: For purposes of mandatory GHG reporting only, ARB has defined a range in composition of "pipeline quality natural gas" consistent with other WCI member jurisdictions. Working with WCI colleagues, ARB found that use of Tier 1 and Tier 2 methods for gas outside this composition can cause errors of 10 to 15 percent or more in CO_2 estimation. ARB is open to re-visiting composition of pipeline quality gas in future regulatory updates if data are provided that demonstrate one or more of the specifications in the regulation is not needed to ensure accurate estimation of CO_2.

Y-25. "Pipeline Quality Natural Gas"
Comment: The word "quality" in the definition of "Pipeline Quality Natural Gas" is used in the context of these regulations to define a default "range" for purposes of MRR calculations. The word "quality" can be eliminated to avoid confusion without changing the meaning or function.

The California Public Utility Commission (CPUC) adopts natural gas specifications that utilities must adhere to in delivering natural gas to their customers. Because the CPUC has authority over natural gas quality issues, ARB should choose a different term to define the "default range" for the calculations required under this regulation to avoid implying that ARB is assuming jurisdiction over gas quality issues. The word "quality" implies a standard or grade that has an intrinsic value, characteristic or feature. In many cases the word "quality" is used to imply excellence or grade and implies a positive connotation wherein anything that is not "quality" creates a negative connotation. The use of the word "quality" in this regulation may create a level of confusion among natural gas customers because it could be construed as implying that gas that meets pipeline specifications is nevertheless not "pipeline quality." [SF 25.02 – SEU]

Response: ARB does not confer upon itself an authority over natural gas standards, but it was necessary to include a separate term to specify a range of gas composition within which carbon testing should be unnecessary. (This was done in the original 45-day proposal.) ARB will consider changing the term to exclude the word "quality" in future updates to the regulation. Meanwhile the phrase "for the purpose of calculating emissions under this article" was added to the definition as part of the second 15-day package, after ARB heard verbal objections to use of the word "quality."

Y-26. Pipeline "Quality"
Comment: The word "quality" as related to "pipeline quality" and "pipeline quality natural gas" should be deleted in entirety from the following definitions and

throughout this regulation. The portion of Section 95102(a)(288) “and which is at least ninety percent methane by volume,” should be deleted.

95102(a)(251) “Natural gas” definition. (The commenters propose the following changes) “Natural gas” means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth’s surface, of which its constituents include methane, heavier hydrocarbons and carbon dioxide. Natural gas may be for field use (which varies widely) or pipeline natural gas. For the purposes of this article, the definition of natural gas includes similarly constituted fuels such as field production gas, process gas, and fuel gas.

95102(a)(288) “Pipeline quality natural gas” definition. (The commenters propose the following changes) “Pipeline natural gas” means, for the purpose of calculating emissions under this article, natural gas having a high heat value greater than 970 Btu/scf and equal to or less than 1,100 Btu/scf, and which is less than five percent carbon dioxide by volume.

95102(a)(392) “Transmission pipeline” definition. (The commenters proposed the following changes) “Transmission pipeline” means a high pressure cross country pipeline transporting sellable natural gas from production or natural gas processing to natural gas distribution pressure let-down, metering, regulating stations where the natural gas is typically odorized before delivery to customers. [SF 25.03 – SEU]

Response: Please see Responses to Y-24 and Y-25. The term “quality” in the transmission pipeline definition was not included to place any additional limitations on the natural gas in the pipeline.

Y-27. “Material Misstatement”

Comment: WSPA recommends that the word "single" in the phrase "single product data component" [95102(235)] be deleted as they view this as overly restrictive when the impact of a single product data error can be minimal. (2)WSPA also requests that missing data provisions be added to this section to allow operators the ability to substitute missing data should a meter go down. [SF 09.01 – WSPA]

Response: The term “single” does not need to be removed from the definition “single product data component.” The second 15-day modification language reflects changes that limit the product data types that are subject to the material misstatement equation. For refineries only, “primary refinery products” are subject to the material misstatement requirements in section 95131(b)(12). The regulation does not allow for data substitution for product data to ensure the accuracy of the data used in the allowance allocation component of the cap-and-trade program.

Y-28. Modify Definition of CO_2

Comment: Section 95122(b)(6). The Definition Of CO_2 Should Be Modified To Clarify That "Emissions From Storage" Are Based On The Difference Between Storage Injections And Withdrawals In A Reporting Year. The definition of term CO_2 needs to be better described to clarify what is included in the calculation. In order to make this term consistent with the usage in the EPA regulation in 40 CFR Part 98.404, the provided revisions should be made to section 95122(b)(6). This addition will clarify that "emissions from storage" are based on the difference between storage injections and withdrawals in a reporting year. [SF 14.04 – PGE]

Response: CO_{2I} is described in detail in section 95122(b)(4) and this description should be used in conjunction with the equation in section 95122(b)(6) to calculate emissions. As such, ARB does not believe the requested change is necessary.

§95103 to §95106 General Requirements

Y-29. Forest Wood Waste

Comment: Forest-derived wood waste requires an identification number (95103(j)(2)): Section 95103(j)(2) under calculating emissions from biomass-derived fuels requires that: "When reporting use of forest derived wood and wood waste identified in …, the reporting entity must report…the corresponding identification number under which the wood was removed." The CSCME comment letter dated August 10, 2011, asked that ARB withdraw or modify the requirement to provide an identification number for forest-derived wood and wood waste. The Southern California wood waste brokers used by the cement companies in that location provide a mixed wood waste stream containing some forestry waste, which is mainly but not exclusively urban forestry waste. Because the local wood waste brokers cannot account for the exact origin of the wood waste that they provide, they cannot comply with the ARB rule requirements as currently written. Nor can the wood waste brokers exclude forestry waste, because forestry waste is often combined with other kinds of waste (such as urban forestry waste with construction wood waste, in case of a demolition including tree removal or something like that). Therefore, CSCME re-affirms its original comment (Item I) that wood waste brokers cannot comply with 95103(j)(2) as currently written, and this could result in cement plants no longer being able to use wood waste as a biomass stream in their plants. To promote the use of biomass-derived fuels we recommend that ARB identify a more practical alternative to track forest-derived wood waste given to middlemen, for use as fuel. CSCME believes that forest-derived wood and wood waste is a relatively small share of total wood waste used at cement plants and would suggest that maybe some kind of exception language like the following could be added to the end of 95103(j)(2): "Except in cases where the forest derived wood and wood waste is provided in combination with construction or other wood

waste, where the forest derived wood and wood waste represents 25% or less of the total wood waste in each shipment, based on operator observations at the time of shipment delivery." [SF 05.01 – CSCME]

Response: Tracking of forest wood waste is essential to determine the effects of GHG control strategies on use of biomass fuels that may originate in forests. ARB staff has spoken with all the biomass fuel suppliers that the commenter identified in separate correspondence on this topic. Each indicated that they do not deal in forest wood waste as described in the regulation. Therefore, this provision should not affect CSCME members, and no changes are required at this time. This provision is necessary because of concerns raised over the impact of carbon pricing on forest stock and sustainability.

Y-30. Verification of Biomethane and Biogas

Comment: Section 95103. Greenhouse Gas Reporting Requirements. Section 95103(j) deals with Calculating, Reporting, and Verifying Emissions from Biomass-Derived Fuels. Biogas and biomethane are biomass-derived fuels subject to identical transportation systems. Section 95103(j)(3) should include the requirement that both biogas and biomethane supplies produce documentation including invoices, shipping reports, allocation and balancing reports, storage reports, in-kind nomination reports, and contracts for verifier or ARB review to demonstrate the receipt of eligible biogas and biomethane.

Modify: (3) When reporting biogas and biomethane, documentation including invoices, shipping reports allocation and balancing reports, storage reports, in-kind nomination reports, and contracts must be made available for verifier or ARB review to demonstrate the receipt of eligible biogas and biomethane. [SF 25.04 – SEU]

Response: ARB believes it was not necessary to specify the same requirements for biogas because in most cases, the source of biogas is at the same facility or a facility located in close proximity served by a dedicated pipeline so there is little possibility of confusion about the authenticity of the claimed biogas usage. The verifier, during the course of the verification, may ask to see copies of invoices to crosscheck the metered volumes.

Y-31. Reporting and Verification Deadlines

Comment: Although the 2nd-15-day rulemaking package did modify the submittal deadline date, the AB 32 IG continues to recommend that the verification statement due date in section 95103 be revised from September 1 to October 1 to allow facilities 30 extra days to deal with the complexities of getting the emission report verified. [SF 06.05 – ABIG]

Response: Please see Responses to M-53 and M-60.

Y-32. RPS Reconciliation Flexibility

Comment: Additional time to Reconcile and Correct RPS Adjustment Numbers in Report. LADWP appreciates the recognition that additional time may be needed to fully reconcile electricity imported from renewable energy resources, and supports the added flexibility to make corrections to the amount of electricity claimed for the RPS Adjustment, if necessary, within 45 days following the report due date. [SF 11.02 – LADWP]

Response: The comment is not seeking any modifications and ARB appreciates the comment.

Y-33. Best Available Data for Power Entities

Comment: New Reporting Requirements: Several new reporting requirements have been introduced during the 15-day changes process that will apply to the 2011 reporting period. All reporting entities should be able to use best available data to comply with new reporting requirements for the 2011 reporting period, not just those entities that are not subject to EPA's mandatory reporting rule. [SF 11.06 – LADWP]

Response: ARB believes it is both important and feasible for electric power entities to meet full regulation requirements beginning with the 2012 emissions data report. The complication of separate reporting to U.S. EPA does not apply to electricity imports. Several current requirements have been removed from the regulation, and power entities have been afforded a later reporting deadline to provide additional time to meet the new requirements.

Y-34. Best Available Data for Energy Inputs and Outputs

Comment: One of the new requirements added to the Mandatory Reporting Regulation during 2011 requires facilities to report facility energy inputs and outputs. Since facilities did not become aware of this new reporting requirement until July 2011, it seems only fair that facilities should be able to use best available data for the first year of reporting. A provision was added to 95103(h) to allow use of best available data for the 2011 reporting period; however, this provision is limited only to entities that are not subject to reporting to EPA under 40 CFR Part 98. To simplify the reporting requirements and apply it uniformly to all reporting entities, this provision should apply to all new reporting requirements, regardless of whether or not the reporting entity is subject to EPA's mandatory reporting rule (40 CFR Part 98). To achieve this efficiency and uniformity all facilities should use best available data to fulfill new reporting requirements for the 2011 emissions report. Therefore, LADWP recommends that section 95103(h) be modified as follows: (h) *Reporting in 2012*. For emissions data reports due in 2012, ~~in cases where monitoring equipment and procedures were not in place in 2011 to enable reporting under the full specifications of this article~~, facility operators ~~and suppliers must~~may report 2011 emissions using applicable monitoring and calculation methods ~~that are applicable to them~~ from 40 CFR Part 98~~. For entities not required to report 2011 emissions under 40 CFR Part 98~~, or best available data and methods ~~may be used for the 2011 data year~~. ~~Suppliers and E~~Eelectric power entities

must report 2011 electricity transactions (MWh) and emissions (MT of CO_2e) under the full specifications of this article as applicable in 2012. For 2012 reports of 2011 emissions by facilities and suppliers, the missing data substitution requirements specified in this article that are different from the requirements of 40 CFR Part 98 do not apply; missing data for the 2012 report of 2011 emissions must be substituted according to the requirements of 40 CFR Part 98. [SF 11.17 – LADWP]

Response: Where the regulation does not specify a methodology for deriving information and including it in the emissions data report, as in the commenter's example, use of best available data and methods is quite appropriate and acceptable under the regulation's requirements. Reporters would need to demonstrate to their verifiers that the chosen methods are reasonable. No change to the regulation is required at this time.

Y-35. Reporting and Verification Deadlines

Comment: New Reporting and Verification Deadline (Section 95103): It is imperative that facilities are given ample time to work on developing their reports and to work with their verifiers to obtain required positive or qualified positive verifications, especially since the facility MRR reports serve as the foundational basis of the cap-and-trade program. The Second 15-day MRR modifications made only a modest change in the reporting date deadline from April 1st to April 10th. This change is minor and does nothing to alleviate the reporting/verification concern expressed in our August 11th letter. Therefore, the CalChamber maintains the recommendation that CARB re-set the reporting and verification timelines back to the proposed original dates of June 1st and December 1st. [SF 17.01 – CCC]

Response: See Responses to M-53 and M-60.

Y-36. 40 CFR Part 75 Meter Accuracy

Comment: 95103(k): Accuracy of Measurement Devices – need to retain exclusion for units subject to Part 75. Previously, section 95103(k) did not apply to stationary fuel combustion units that use methodologies in Part 75 to calculate CO_2 emissions. As part of the changes made in the 2nd 15-day changes package, ARB deleted the "methodologies in 40 CFR Part 75" language and replaced it with "the methods in 40 CFR 98.33(a)(4)". However, 40 CFR 98.33(a)(4) excludes electricity generating units subject to 40 CFR Subpart D, and Subpart D applies to electricity generating units that report emissions to EPA according to 40 CFR Part 75. As a result of this change, electricity generating units that previously were not subject to this section will now need to comply with both the QA/QC requirements in Part 75 as well as demonstrating compliance with the accuracy requirements in MRR 95103(k). It appears this was an inadvertent deletion, based on the following statement from page 5 of the Summary of Proposed Modifications included in the September 12, 2011 Second Notice of Public Availability of Modified Text: The measurement accuracy and calibration requirements specified in section 95103(k) were modified to clarify that the requirements also apply to product measurement devices. Staff clarified

that the requirements do not apply to fuel measurements for stationary fuel combustion units when a CEMS is used under Part 75 or Part 60. LADWP recommends the previous language “use CEMS methodologies in Part 75” be retained in addition to the new language provided in full comment letter. [SF 11.18 – LADWP]

Response: The language in section 95103(k) refers to "*the methods in* 40 CFR §98.33(a)(4)," i.e., use of a CEMS to measure and report GHG emissions. Because facilities using a CEMS under Part 75 are using a CEMS as the method to report GHG emissions, they are also included in the exception to the requirements of section 95103(k). This exception applies whether or not the CEMS user is directly subject to 40 CFR §98.33(a)(4).

Y-37. Meter Calibration

Comment: WSPA recommends ARB clarify in the MRR and FSOR that monitoring and sampling requirements (including calibration checks and meter inspections done prior to this MRR are compliant, provide they were completed by a method that meets 40 CFR 98 applicable provisions. WSPA also request clarification that calibration and inspection requirements for meters will be required as per the revised MRR going forward in 1/1/2012 except for meters with new requirements which must meet the revised MRR regulation beginning 6/1/2012. [SF 09.02 – WSPA]

Response: The reporting regulation must require accurate measurement beginning in January 2012 because reported data will be used to support allowance allocation under the cap-and-trade regulation. Most meters used to calculate emissions would have been calibrated under the current regulation, and this calibration remains valid for three years (or for the duration of the OEM specification if shorter). Meters not previously calibrated, when used to calculate GHG emissions or product data subject to review for material misstatement, are required to be calibrated or demonstrated to be accurate within ±5 percent, by the time they are used to measure data. If a facility is unable to complete calibration by January 1, 2012 of any such meters, but the meter is found to be measuring within the ±5 percent accuracy requirements, then the meter will be considered calibrated for the time prior to the date of that finding. If the meter is found to be not within the ±5 percent accuracy requirement, the facility must use the missing data provisions of the regulation for these measurements. If missing data substitution exceeds 5 percent of a facility’s emissions or 20 percent of a source’s emissions, then a non-conformance will be noted by the verifier. ARB notes that the missing data provisions applicable in 2012 are those from the U.S. EPA regulation.

Y-38. Calibration Failure

Comment: WSPA recommends ARB remove the provision that a non-conformance results from a single initial calibration or recalibration failure. [SF 09.07 – WSPA]

Response: A nonconformance is only triggered when the emissions from the failed device constitute 5 percent of the facility's total, which is consistent with a similar provision in the missing data section. No changes are required.

Y-39. Cement Product Data Stock Measurements

Comment: Accuracy requirement when using inventory/stock measurements (95103(k)(11)): CSCME continues to have significant concerns about the current product date measurement language. Please note that, in the case of the cement industry, this language is being applied to data for "products", which are actually intermediates in the cement manufacturing process, not the ultimate product, which is cement. This is because of the cement benchmarking method approved by ARB, which is different from benchmarking methods in other sectors. CSCME concerns about this language relate to the inability of the verifier to quantify uncertainty relating to a potential discrepancy in product quantities derived from a combination of truck/rail scales, inventory/stock measurements, and associated calculations (as explained below) and the likely inconsistency in verifier review for material misstatement. Due to the complexity and uncertainty in the verification process for the language that ARB has included in 95103(k)(11), this language will result in cement plants being in jeopardy every year for a finding of material misstatement (not resulting from omissions or misreporting) in spite of consistently and correctly following standard procedures used for accounting purposes and used in 2009 benchmarking. CSCME proposes the following language changes relating to 95103(k) provisions

Changes relating to 95103(k) provisions:

95110(d): Insert the following at the end of the first paragraph:

"Monthly clinker production data provided to comply with 98.84(d) is not subject to 95103(k) requirements."

95103(k), first paragraph:

- Insert after "must meet the requirements of paragraphs (k)(1)-(10) below for calibration and measurement device accuracy", "with the exception as noted in paragraph (11) below."
- Insert immediately after that: "Monthly clinker production data provided to comply with 98.84(d) is not subject to 95103(k) requirements."

PROPOSED REPLACEMENT LANGUAGE FOR 95103(k)(11)--Replace with the following:

When using an inventory measurement, stock measurement or tank drop measurement method to calculate volumes and masses, the method consisting of a combination of truck/rail scale measurements, inventory/stock measurements and associated calculations must be accurate to +/-5% for total annual product data required by this article. Techniques used to quantify amounts stored at the beginning and end of these time periods are not subject to the calibration requirements of this section. Uncertainties in total annual product quantities (based on the method consisting of a combination of truck/rail scale and inventory/stock measurements and associated calculations) are subject to verifier review for material misstatement under section 95131(b)(12) of this article. When using inventory or stock measurements in conjunction with truck/rail scales and associated calculation methods to calculate total annual product quantities, where product quantities are as defined in sections 95110 through 95123, if any calculation methods used for inputs and outputs do not meet the requirements of paragraphs (1)-(10) above, the calculation methods will be reviewed by the verifier to ensure that they meet appropriate accuracy standards for such methods.

[NOTE THAT EQUATIONS HAVE BEEN INTENTIONALLY DELETED—see below]

If ARB will not delete these equations, then the following language needs to be added before the equations:

"Reported values must be calculated using the following equations, where these equations are adapted for the details of each product type per site-specific conditions"

The distinction between the CSCME proposed language and the current language used by ARB is as follows: Only the end result, namely the total annual product quantities, which are the numbers used in the denominator of the intensity calculation (relating to previous benchmarking and future allowance allocation) under the AB32 cap and trade rule, is subject to evaluation for material misstatement, rather than each component of the denominator, in agreement with application of 95103(k) requirements to product data in other sectors. For measurement of individual components of the denominator, the verifier is tasked with reviewing the calculation methods and comparing with appropriate accuracy standards, such as those required by Generally Accepted Accounting Principles, rather than with a material misstatement standard that is not well defined and is difficult to apply in this instance. [SF 05.05 – CSCME]

Response: Though ARB understands that clinker is an intermediate product, under the provisions of the cap-and-trade regulation, clinker produced and clinker consumed are utilized in efficiency calculations to support allocation of a public good, free allowances. Unless a product measurement is determined to be ±5% accurate, either by the reporting entity conforming to the metering accuracy and calibration requirements of the regulation or by the verifier having reasonable assurance that any alternative methods are ±5% accurate, ARB believes that the data are not sufficiently accurate for consideration in the allocation of free

emissions allowances. All emissions data used for calculating a reporting entity's compliance obligation and all product data used for calculating a reporting entity's free allocation must meet the same ±5% accuracy requirement to ensure efficiencies are real and sufficient to preserve the integrity of the cap-and-trade system. It is important that cement facilities also meet this standard.

Y-40. Stock Measurement

Comment: Please note that CSCME strongly suggest striking from the language in 95103(k)(11) the generic equations (intended to represent equations previously submitted and approved by ARB) due to the fact that their use in the verification process would cause confusion and, when considering the suggested revisions to 95103(k)(11), is unnecessary. CSCME has major reservations about these equations being included in the regulation, unless ARB will provide detailed guidance to verifiers about how to apply these equations to specific sectors. These equations are very generic in nature and could be misapplied by verifiers without sufficient guidance from ARB. The verifier will not know how to implement the equations or evaluate for material misstatement, unless ARB provides guidance. See comment letter for additional background information. Please note that, in the case of the cement industry, the 95103(k) language is being applied to data for "products", which are actually intermediates in the cement manufacturing process, not the ultimate product, which is cement. This is because of the cement benchmarking method approved by ARB, which is different from benchmarking methods in other sectors. The approach for product measurements as proposed by CSCME, as described above, is consistent with the 2009 benchmarking and is the standard method used for accounting purposes, as followed for many years at cement plants throughout the United States and the world. [SF 05.06 – CSCME]

Response: ARB believes the equations are needed to provide clear guidance to reporters for their calculations of both emissions and product data. ARB understands their application for cement facilities involves intermediate products, but these products are used to support allowance allocation under the cap-and-trade regulation. See also Response to Y-39.

Y-41. Material Misstatement in Product Data

Comment: Concerns about current language: To the extent that there is a finding of material misstatement (not resulting from omissions or misreporting), associated with standard product measurement procedures used in the cement industry (for whatever reason, which the cement industry cannot predict, given the potential for inconsistency and subjectivity of the material misstatement determination by the verifier), the affected cement facility would in effect be penalized for something that is common practice and outside its control. To wit: 1) The data used for allowance allocation would be inconsistent with product data calculated in the ordinary course of the business based on standard industry practice and generally accepted accounting principles designed to insure accuracy in financial reporting.2) The data used for allowance allocation would

be inconsistent with 2009 data used in establishing the industry benchmark, which used normal industry measurement practices that were verified by ARB. Therefore, we strongly urge ARB to reconsider its current wording in 95103(k)(11) and to use the wording proposed by CSCME instead, as listed above (new language shown in box), as well as make the other changes shown in the same box and the other changes for Issues #1, 2, 3, and 4. For clarity, see also the redline/strikeout version of 95103(k)(11) below.

CSCME Letter Attachment, September 23, 2011—Redline/strikeout version of 95103(k)(11):

"When using an inventory measurement, stock measurement or tank drop measurement method to calculate volumes and masses, the method consisting of a combination of truck/rail scale measurements, inventory/stock measurements, and associated calculations must be accurate to +/-5% for total annual product data required by this article, including annually for single product data components. Techniques used to quantify amounts stored at the beginning and end of these time periods are not subject to the calibration requirements of this section. Uncertainties in total annual product quantities (based on the method consisting of a combination of truck/rail scale and inventory/stock measurements and associated calculations) are subject to verifier review for material misstatement under section 95131(b)(12) of this article. When using inventory or stock measurements in conjunction with truck/rail scales and associated calculation methods to calculate total annual product quantities, if any calculation methods used for inputs and outputs do not meet the requirements of paragraphs (1)-(10) above, the calculation methods will be reviewed by the verifier to ensure that they meet appropriate accuracy standards for such methods".

[SF 05.07 – CSCME]

Response: A material misstatement is an objective calculation of the errors, omissions and misstatements in the reported emissions. It is fine to used standard industry practices if they will result in the ±5% accuracy that is necessary to support a market program.

Y-42. Pressure Differential Meter Calibration

Comment: WSPA recommends that section (c) be modified to read "with the time between successive calibrations not to be less than 30 months or greater than 66 month". This would allow facilities additional time in which to conduct required calibration and inspection of pressure differential meters. [SF 09.03 – WSPA]

Response: The “30 to 48 months” corresponds to the three year period in the regulation, providing some flexibility without having successive calibrations be too far apart. ARB believes sixty-six months is too long without calibration or demonstration of accuracy in lieu of calibration.

Y-43. Calibration Traceability

Comment: Standards traceable to national government body (95103(k)(5)): Section 95103(k)(5) currently requires: “All standards used for calibration must be traceable to the National Institute of Standards and Technology or other similar national government body responsible for measurement standards.” Given that truck/rail scales used for product in California are regulated by the California Division of Measurement Standards (under the California Department of Food and Agriculture, not a federal body), CSCME has requested that the word “national” be deleted in front of “government body”, resulting in the following language: “All standards used for calibration must be traceable to the National Institute of Standards and Technology or other similar government body responsible for measurement standards.” CSCME has no control over which government body regulates truck/rail scales, and believes that the proposed ARB rule language is necessary to be consistent with the current practices of the state government and would also be more inclusive in case there is a change in the regulatory body in the future. [SF 05.04 – CSCME]

Response: Traceability is essential to assure that the equipment and devices used to calibrate a meter are themselves accurate. Unless the equipment and devices are traceable to a national government body standard, there is no assurance that the resulting calibration will be accurate. The California Division of Measurement Standards does not maintain traceability standards, so it is not a suitable organization to include in this provision.

Y-44. Photo Documentation of Differential Pressure Devices

Comment: Purging and steaming of lines for safety purposes may clean orifice plates prior to their removal. WSPA is concerned that the resulting orifice plate cleaning could be interpreted as constituting a violation of this section. WSPA also states that if the operator replaces the device with a new one, requiring photo documentation is not necessary. [SF 09.04 – WSPA]

Response: ARB did not intend these safety procedures to constitute a cleaning, even though they may have this effect. ARB would not consider these procedures a violation of the regulation, but would be concerned with manipulation of the device after it has been removed from the pipeline. Photographic evidence, even after these procedures, still provides probative value. No change in the regulation is required.

Y-45. Incorrect Cross-Reference

Comment: WSPA states that the citation "95103(h)(1)" in section 95103(k)(7) should read 95103(h) as there is no 95103(h)(1) [SF 09.05 – WSPA]

Response: The commenter is correct that section 95103(h)(1) is an incorrect cross-reference. The correct cross-reference should be to section 95103(k)(1) and ARB has made the correction in the final MRR.

Y-46. Previous Orifice Plate Inspections
Comment: Section 95105(c)(7) specifically require records of the most recent orifice plate inspections performed according to the requirements of IO 56-2(2003) section. WSPA requests ARB clarify in the final MRR and FSOR that these requirements for orifice plate inspections are prospective going forward into 2012, and are not retroactive to the 2011 data collection and reporting year requirements. [SF 09.08 – WSPA]

Response: Please see Response to Y-37.

Y-47. EO Denial of Postponement Process
Comment: WSPA recommends that ARB incorporate a process to allow facilities who are denied a postponement by the EO, the ability to appeal this decision. WSPA also recommends that ARB include in Section 95103(k)(9) a provision that requires the EO must act on postponement requests within 30 days of submittal. WSPA also request clarification that all monitoring and sampling devices can use the calibration procedures and requirements in 2011, including 40 CFR 98 procedures which would satisfactorily address the calibration requirements starting 1/1/2012. [SF 09.06 – WSPA]

Response: Regarding the portion of the comment seeking an appeals process, see Response to N-3 regarding the timeline required by the cap-and-trade regulation and the need to avoid further delay by creating such an appeals process within the MRR. Regarding the calibration portion of the comment, see Response to Y-37. ARB agrees that the Executive Officer will promptly address requests for postponement, given the timeline required by the cap-and-trade regulation, but does not believe a set deadline is appropriate.

Y-48. Boundary for Reporting Facility Energy Inputs and Outputs
Comment: LADWP appreciates the clarification added to section 95104(d) to limit the boundary for reporting of facility energy inputs and outputs. Since the definition of facility may include a variety of adjacent facilities under common ownership that serve different functions, it would be helpful if ARB could document the intent of this reporting requirement in the staff report and provide examples to clarify what energy inputs and outputs should / should not be reported, to help reporters understand how to apply this new reporting requirement to their facilities. For example, in the case of an electricity generating station that is adjacent to a water pumping station, the electricity input to run the pumps at the water pumping station should not be included in the energy input reported by the generating station. [SF 11.03 – LADWP]

Response: As noted by the commenter, a new sentence was added in section 95104(d) during the second 15-day notice to exclude "electricity consumed by operations or activities that do not generate any emissions, energy outputs, or products that are covered by this article, and that are neither a part of nor in support of electricity generation or any industrial activities covered by this article." Its addition was in response to the stakeholder comments that the "facility" definition may pull in multiple distinct operations into one facility boundary, and some of those distinct operations are not related to the operations or activities that are covered by the GHG reporting regulation. For the purpose of evaluating the industrial efficiencies of producing products, outputs, electricity or thermal energy, including the electricity consumed by non-related operations or activities may make the covered operations/activities appear less efficient than their actual efficiencies. This sentence gives the operators an option to exclude certain electricity consumptions that occur within the facility boundary (which is determined by the "facility" definition) but do not contribute to the overall energy needs of the production operations or activities covered by this regulation.

As an example: a business owner may own or operate a food processing facility and a separately-fenced warehouse facility for renting out storage space to other companies or individuals. The food processing facility and the warehouse facility are adjacent to each other and separated only by a public road way; and therefore, they are considered one facility based on the "facility" definition in section 95102. The food processing facility has stationary combustion emissions exceeding the reporting threshold of 10,000 $MTCO_2e$. The warehouse facility consumes electricity, and transportation fuels are combusted in vehicles and other off-road equipment for warehouse operations, but it does not have any other stationary GHG emissions regulated by this regulation. If the business owner/operator does not store in the warehouse facility any products produced by the food processing operation or any materials or equipment in support of the food processing operation, and they also do not conduct any food processing related activities at the warehouse facility, the warehouse operation is considered "neither a part of nor in support of industrial activities covered by this article." The operator may exclude the electricity consumed by the warehouse operation when reporting the facility energy input and output. However, if the business owner stores any products, materials, or equipment related to the food processing operation in the warehouse facility, the electricity consumed by the warehouse operation cannot be excluded.

For the case mentioned in the comment, "an electricity generating station that is adjacent to a water pumping station," the electricity consumed by the water pumping operation can only be excluded if the water pumping operation does not support the electricity generating station and does not release any emissions that are otherwise covered by this regulation. To utilize this option for exclusion, the reporter would need to demonstrate that the water pumping station meets the criteria for exclusion from the facility energy input and output reporting.

§95107 Enforcement

Y-49. Remaining Concerns with Enforcement Language
Comment: LADWP still has concerns with several aspects of the enforcement language which have not been adequately addressed. Please see our enclosed technical comments. [SF 11.07 – LADWP]

Response: See Responses to Y-50 and Y-51.

Y-50. Corrections Made During Verification Should Not Be Subject to Penalties
Comment: In our December 2010 and August 2011 comments on the proposed modifications to the MRR, LADWP identified the following concerns with the proposed enforcement language. 1) A report that "contains information that is incomplete or inaccurate" would be subject to separate daily violations, but the MRR does not establish a standard for determining whether a report is incomplete or inaccurate. Since there is no standard or threshold for "incomplete or inaccurate", even minor errors in a report that are identified and corrected during the verification process would be subject to daily violations and penalties. 2) "Each failure to measure, collect, record or preserve information needed for the calculation of emissions…constitutes a separate violation of this article", even though the use of missing data substitution procedures is allowed under section 95129 of the MRR when equipment fails to measure or record data. While ARB has proposed some changes to the enforcement language, the changes do not resolve LADWP's concerns. Copied below for reference are its previous comments regarding these issues:

95107(a) the phrase "contains information that is incomplete or inaccurate" should be removed for the following reasons: There is no defined standard to determine whether a report is "incomplete or inaccurate". The purpose of verification is to identify and correct any errors to ensure the reports are as accurate as possible, therefore corrections made to an emissions data report during the verification process should not be subject to penalties. MRR section 95131(b)(9) requires the reporting entity to "make any possible improvements or corrections to the submitted emissions data report, and submit a revised emissions data report to ARB". MRR 95107(b) provides for penalties for under-reporting of emissions (inaccuracy).

> (a) Each day or portion therof that any report ~~or to include in a report all information requird by this article, or late submittal of any report, shall constitute a single, separate violation of this article for each day that the report has not been submitted beyond the specified reporting datee. For the~~required by this article remains unsubmitted or is submitted late~~, or contains information that is incomplete or inaccurate within the level of reproducibility of a test or measurement method~~is a separate violation. For purposes of this section, ~~"~~"report~~"~~" means any emissions data report,

verification ~~opinion~~statement, or other ~~document~~record required to be submitted to the Executive Officer by this article. [SF 11.19 – LADWP]

Response: As noted by the commenter, these identical comments were raised in the first 15-day comment period, and ARB has responded to this comment in Responses to B-12, N-9, N-11, and N-12. Regarding the use of missing data provisions, see Response to B-8.

Y-51. Exempt Use of Missing Data Substitution Procedures from Enforcement
Comment: 95107(c) the phrase "except to the extent the missing data substitution procedures in section 95129 are applied" should be added. Without this clarification, daily violations and penalties could be imposed for the use of missing data procedures when fuel flow metering equipment fails to measure or record data, even though use of missing data procedures is allowed under EPA Part 75 (Acid Rain), EPA Part 98 (GHG Reporting Rule), and ARB's MRR 95129.

(c) ~~Each f~~Failure to measure, collect, record or preserve information required by this article~~needed~~ for the calculation of emissions ~~as required by this article~~ or that this article otherwise requires be measured, collected, recorded or preserved constitutes a separate violation of this article, except to the extent that missing data substitution procedures specified in 95129 are applied. [SF 11.20 – LADWP]

Response: For the reasons expressed in Response to B-8, ARB declines to make the requested modifications.

Y-52. Moderate Potential Enforcement Exposure For Unverified Emissions Reporting
Comment: ARB Should Moderate Potential Enforcement Exposure For Unverified Emissions Reporting. PG&E appreciates the various improvements that have been made to the enforcement provisions in both the Mandatory Reporting and Cap and Trade Regulations, such as elimination of "per ton per day" potential penalties and specification that the potential penalties for reporting shortfalls in prior compliance years apply only if the shortfall exceeds five percent of the originally reported emissions. However, PG&E requests that further changes be made to improve these provisions. Under section 95107(c), any ton of CO_2e that is emitted but not reported in any report is a separate violation. In discussing this language, ARB staff have suggested that if an entity's reported emissions are higher in the verified emissions data report than were reported in the initial, unverified emissions data report for the same reporting period, each ton of increased reported emissions could be considered a violation. As amended in the September 12 package, section 95107(c) states that ARB "will not initiate enforcement action under this subparagraph" until after the pertinent verification deadline, but this delay of enforcement doesn't address the fundamental unfairness of imposing civil liability for changes in reported emissions that are likely to result from the verification process working as intended, with no showing of willful conduct and where there is no effect on cap and trade compliance. ARB should further amend this section so that changes in

reported emissions occurring between the initial emissions data report and submission of the final verified emissions data report are violations only if initial under-reporting was due to intentional misrepresentation. [SF 14.06 – PGE]

Response: As explained in Response to N-11, the verification process is a required quality assurance/quality control of submitted data, and forms the basis of a reporting entity's cap-and-trade compliance obligation. However, verification is not intended to relieve the obligation of reporting accurately and completely as of the initial reporting deadline. While ARB has modified section 95107(c) to clarify that during the verification process ARB will not initiate any enforcement actions, this modification is not intended to act as a "safe harbor" for any inaccuracies or incompleteness of the initially submitted emissions data reports. ARB does note that prior to commencing any enforcement action, should such action be deemed necessary, it must take into account all relevant circumstances, including the nature of the violation and actions taken by reporting entities (and verifiers) to comply with the regulatory requirements. See Responses to B-1, B-12, N-11, and N-12.

Y-53. Only Initiate Enforcement Action After Verification Deadline and Only When ARB Determines a Pattern of Under-Reporting

Comment: Enforcement Penalty Provisions (Section 95107): CalChamber expressed concern with certain provisions in the Enforcement section that would essentially allow CARB unilateral authority to assess penalties for any GHG ton or data measure or collection as a separate penalty. Specifically, CalChamber raised concern with subparts (b) and (c) of Section 95107 and suggested modifications to these sections that would alleviate enforcement concerns and create parity between the MRR Enforcement Provisions and the cap-and-trade's penalty or 'Violation' provision of the regulation. CalChamber acknowledges some positive changes were made to the second 15-day MRR modifications as it relates to the Enforcement Section. We appreciate that subpart (a) was added to give CARB the ability to consider an entity's 'pattern of violation' when assessing a penalty. Compliance history is an important factor that must be given consideration and CalChamber is pleased to see this inclusion in the second MRR modification. CalChamber does have concerns with some changes to the second 15-day modifications which are in addition to the comments/concerns raised in our first 15-day MMR modification. We request clarification to subpart (c) of section 95107 to clarify that CARB may initiate enforcement action in the event of under-reported emissions data only after the verification deadline and if CARB determines that the entity has a pattern of under-reporting. CalChamber recommends the following revisions to subpart (c).

> Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation. ARB ~~will not~~ may initiate enforcement action under this subparagraph ~~until~~ alleging that emissions were under-reported in an emissions data report only after any applicable verification deadline

for the pertinent report and if ARB determines that there is a recurring pattern of under-reporting. [SF 17.01 – CCC]

Response: ARB appreciates the commenter's acknowledgement of some of the changes made in the second 15-day modifications. Regarding the commenter's suggested change to section 95107(c), ARB believes these changes run counter to ARB's stated need of ensuring that the MRR provides an adequate deterrent to behavior related to under-reporting emissions which could result in significant economic benefits under the cap-and-trade regulation to an entity which under-reports. Furthermore, ARB believes that the modifications made to section 95107(a), in particular regarding the circumstances which ARB must evaluate prior to seeking any penalty amount, address the commenter's concern regarding a recurring pattern of under-reporting. However, ARB believes the requested changes would tie ARB's hands and weaken the deterrent effect of the enforcement provisions. As such, ARB declines to make the requested modifications. See also Responses to B-10, N-2, N-3, and Y-52.

Y-54. Clarify in the FSOR that No Violation Will Occur When An Operator Uses Missing Data Substitution or Interim Data Collection Procedures in Section 95129
Comment: We request that CARB provides clarification on subpart 95107(d) to ensure facilities that the MRR rule is read as a whole, and a violation does not occur when an operator complies with an alternative provision applicable under the circumstances. For example, information will be considered to be 'measured, collected, recorded and preserved in the manner required by this article' and no violation will occur when an operator complies with the pertinent missing data substitution or interim data collection procedures specified in Section 95129 of the MRR. CalChamber requests that the clarification to subpart (d) be included in the FSOR. [SF 17.01 – CCC]

Response: See Response to B-8.

Y-55. Concern With Per Ton Penalty Metric
Comment: CalChamber remains concerned that under the current MRR, CARB continues to base penalties on a "per ton" metric. Our first 15-day comment letter recommended that the penalty metric be based on the specificity of the violation. It is inappropriate for CARB to base penalties on a per ton metric given the massive amount of GHG emissions involved in the AB 32 program. Assigning a "per ton" penalty for each GHG ton that is not reported can result in a penalty of tens if not hundreds of thousands of dollars to a facility, despite the fact that a facility's MRR report carries a positive or qualified positive verification determination. It is simply unfair to impose such excessive penalties and costly burdens upon facilities. For these reasons, we continue to recommend that the penalty metric be based on the specificity of the violation.

Response: It is not clear from the comment what modifications, if any, are being requested. As explained in Responses to B-11 and N-26, ARB believes a per-

ton violation is a necessary deterrent because under-reporting of emissions poses potential significant economic benefits on a per-ton basis to companies by reducing the amount of allowances they would have to buy under a cap-and-trade system. Moreover, Health and Safety Code section 38580(b)(3) authorizes ARB to define violations on a per-unit basis, proportional to the conduct. Modified section 95107(a) makes clear that ARB must look at all relevant circumstances prior to seeking any penalty amount. As such, ARB believes that any penalty it seeks would necessarily be based on the specificity of the violation and that no further modifications to section 95107(c) are necessary. Regarding the commenter's concern that ARB may unilaterally assign a penalty amount, see Responses to N-2 and N-3.

Y-56. Dispute Resolution Process

Comment: Currently CARB's Executive Officer (EO) retains sole authority of program implementation of both the cap-and-trade and mandatory reporting regulations, including determining whether regulated parties have complied with regulations and setting the penalties for such program violations. These important decisions will be made unilaterally without a public process and will have an impact on California businesses. It is important for these regulated entities to have a fair and transparent process through which to appeal a decision. CalChamber supports the adoption of a formal autonomous dispute resolution process that would enable facilities to challenge and resolve disagreements prior to potential enforcement actions through an equal process for all parties involved in any dispute. We believed this program should use an unbiased mechanism to resolve disputes, variances and penalty disagreements with the EO. [SF 17.01 – CCC]

Response: See Responses to N-2 and N-3. Regarding the commenter's use of the term "variance," see Response to B-22.

Y-57. CARB Should Reaffirm That It Will Not Seek Exorbitant Penalties For Violations Reflecting No Wrongful Behavior And Without Any Demonstrable Environmental Consequences

Comment: CARB should revise the Proposed Amendments to the MRR to confirm that, where regulated entities fail to comply with a provision of the MRR due to no wrongful behavior and the violation results in no harm to the environment, it will not seek exorbitant penalties from such entities. If CARB cannot provide such assurances upon finalizing the Proposed Amendments to the MRR, Calpine would request that CARB issue guidance providing such assurances or otherwise affirm its commitment to apply the relevant statutory criteria in a manner that will not result in extraordinary penalties for minor reporting errors. CARB Should Reaffirm That It Will Not Seek Exorbitant Penalties For Violations Reflecting No Wrongful Behavior And Without Any Demonstrable Environmental Consequences. Calpine previously commented on the Proposed Amendments' provisions that would classify each day in which any required report is late or incomplete or each ton of emissions under-reported as a

separate violation. *See* Proposed Cal. Code Reg., titl. 17 § 95107(b)-(c); August 11, 2011 Comments, 7-8. As Calpine previously conveyed, under these Proposed Amendments to the MRR, even an inadvertent data entry error could result in literally millions of individual violations of the Health and Safety Code. Adherence to the detailed provisions of the MRR will be a major undertaking for reporting entities and one that is unlikely to be free of error, particularly in the first years of the MRR's implementation. Calpine is concerned that, as drafted, the Proposed Amendments could transform a seemingly innocuous and inadvertent human error into the subject of a major enforcement action, even though no impact on global climate change could likely be demonstrated as a result of the error. Calpine believes CARB should provide the regulated community with assurances, either upon promulgation of the final amendments of the MRR or otherwise in guidance, that CARB will not wield its enforcement authority in a manner that fails to account for the severity of harm reflected by a particular violation. Where noncompliance has resulted from no wrongful behavior and does not result in any environmental harm, CARB should affirm that it does not intend to apply the relevant statutory criteria set forth by the Health and Safety Code so that inadvertent errors will result in millions of dollars of penalties to well-intentioned companies. If CARB cannot provide such assurances upon finalizing the Proposed Amendments to the MRR, Calpine would strongly urge CARB to issue regulatory guidance that clarifies its intention to not enforce the MRR in a manner that departs from the principles of proportionality and fairness inherent in the relevant statutory criteria at the earliest opportunity. CALPINE requests that ARB reaffirm that it will not seek exorbitant penalties for violations reflecting no wrongful behavior without ant demonstrable environmental consequences. [SF 19.03 - CALPINE]

Response: As explained in Responses to B-6 and B-10 (and section 95107(a)), ARB must take into account all relevant circumstances, including the size and complexity of the facility, any pattern of violation, and the criteria in Health and Safety Code section 42403(b), including the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, the frequency of past violations, the record of maintenance, any unproven or innovative nature of control equipment, any mitigating actions taken, and the financial burden to the defendant. As such, ARB does not believe that exorbitant penalties would result from a single, inadvertent error, or even, necessarily, other types of errors. If ARB determines enforcement action is appropriate for any violation(s), it must consider all relevant circumstances (as set forth in section 95107(a) and Health and Safety Code section 42403(b)) when seeking any penalty amount. Defining certain violations in terms of tons also ensures that penalties are proportionate to the magnitude of the noncompliance. See also Responses to B-1, B-11, N-22, N-44, and Y-55.

Y-58. Appreciate Staff Time, But Persisting Concerns

Comment: CCEEB is appreciative of the time the enforcement and legal staff has spent working with us on our major concerns with this regulation. While there are

some positive steps made in this draft there are some real and persisting concerns with the Mandatory Reporting Regulation (MRR). CCEEB looks forward to continuing to work through these concerns in a 45-day notice in the future. [SF 23.01 – CCEEB]

Response: This comment does not specifically address any suggested modifications. However, ARB appreciates the commenter's acknowledgement of the amount of time ARB staff has spent working with the commenter regarding their concerns.

Y-59. Compliance Concerns

Comment: As written CCEEB does not believe good actors will be able to maintain compliance with this iteration of the MRR. While CCEEB has discussed these issues extensively with staff, 95107 of this regulation continue to create persisting problems. This section is seemingly written from the lens of a prosecutor and not from the lens of a regulator. As CCEEB interprets the changes of Section 95107 it is still improbable that entities can stay in compliance, because any changes made to the report during the verification process could be interpreted as a violation. With several years of reporting complete it is well known that during the verification process, even in situations where the report's emissions are not changes, there will be changes to information within the report. While current staff may agree that this is not the intent, the letter of the regulation makes it clear that these changes are each separate violations. Though staff and the ARB may want the flexibility to pursue bad actors that intentionally under-report, the way Section 95107 is currently written puts most compliance entities at risk of non-compliance and potential violation. This ambiguity should not be practiced and CCEEB has, in previous meetings and comments, made specific recommendations to accomplish the same goals. It is fundamentally wrong to treat all entities as violators when the regulation requires verifiers to ensure that the reports are accurate. Additionally, compliance to this regulation has become a part of several Title V permits and maintaining compliance to both regulations is critical to the operation of the permit holders. If compliance is not capable in MRR there will be serious repercussions and economic impacts on permit holders. [SF 23.02 – CCEEB]

Response: ARB does not agree with the commenter's contention that good actors will be unable to maintain compliance with the requirements of the MRR and has designed the requirements to ensure reporting entities are able to do so. This comment appears to be directed not at the enforcement provisions, but at unspecified requirements of the MRR the commenter implies are impossible to fulfill. Moreover, in the event ARB were to determine that a violation had occurred, and that enforcement action was necessary, ARB would have to take into account all relevant circumstances, including the nature of any violation and actions taken by reporting entities to comply with the regulatory requirements, prior to seeking any penalty amount. Regarding the portion of the comment addressing the role of verification in the MRR, see Response to B-12. Regarding

the commenter's concerns over Title V permits, ARB notes that the purpose of the Title V program was to consolidate into a single document all applicable federal, state and local laws, rules and regulations pertaining to the permitted source. As such, MRR requirements must be listed by a district (or U.S. EPA where appropriate) in the permit as an applicable state law requirement. However, ARB disagrees that MRR requirements cannot be met by all affected sources and the MRR regulation has been drafted to provide a variety of means to maintain compliance.

Y-60. Safe Harbor During Verification

Comment: The ARB should clarify that when a report is submitted and the operator is working with the verifier on corrections/edits… no penalties or violations will be assessed during this period. CCEEB believes that if the pertinent emissions data report did not contain a material misstatement, as determined through the verification process and the newly identified unreported emissions are not due to an intentional error or fraud, the covered entity should be required to submit in a timely manner (measured from the date the shortfall was formally reported to the entity) compliance instruments in the amount of the excess emissions. Additionally, there would be no violation of either the mandatory reporting or the market-based compliance mechanism (cap-and-trade) regulations unless the entity failed to submit the additional compliance instruments. CCEEB further suggest the following:

- The ARB should adjust without penalty all pertinent baselines for which a calculation, verification or reporting from a nonmaterial misstatement or mistake is found.
- If a mistake is made resulting in CO_2e emissions over the amount reported and compliance instruments not surrendered, the "new" compliance obligation would only be that amount over the 5 percent error margin.
- If a mistake is made resulting in CO_2e emissions under the amount reported and for which compliance instruments were surrendered, compliance instruments should be returned to the account of a covered entity for the amount over the 5 percent error margin.
- CCEEB is not proposing any restriction or limit on ARB's efforts to assure program integrity, such that a mistake does not include any tampering of meters or other actions knowingly taken contrary to the AB 32 regulations. Similarly, the proposed "safe harbor" for mistakes in no way alters or constricts ARB's audit and program oversight authority. [SF 23.03 – CCEEB]

Response: See Responses to N-11, N-12, and N-17. ARB notes that the commenter made an identical comment regarding the first 15-day modifications, and ARB provided a response to these comments in Response to N-17.

Y-61. Clarify That No Violation If Use Missing Data Procedures

Comment: CCEEB understand that it is ARB's intent that an entity is in compliance with the requirement that information be measured, collected,

recorded and preserved, if an entity complies with alternative provisions of the regulation, such as the pertinent missing data substitution or interim data collection provisions. CCEEB requests ARB to clarify tin their Final Statement of Reason that a violation does not occur when an operator complies with an alternative provision applicable under the circumstances. [SF 23.04 – CCEEB]

Response: See Response to B-8.

Y-62. Concern About Lack of Appeals Process

Comment: CCEEB believes that it is entirely appropriate to expect companies to maintain auditable quality data for verification and enforcement purposes. Consistent with our recommendation that reporting protocols be consistent with Climate Action Reserve protocols so that the registry can be relied upon, CCEEB urges that auditing and enforcement be conducted on a statewide basis. CCEEB has major concerns with the fact of an appeals process for enforcement actions of 'alleged' violations of data reporting requirements. IN the event that mandatory reporting data at a specific facility is not available due to monitoring equipment failure, out of tolerance calibration, etc., procedures should be specified so that a facility can avoid incurring a violation and the resultant penalties. While alternative emissions calculation methods are specified in the regulations, those particular calculation formulas may not be as accurate as best available data/engineering estimates from the facility. With hundreds of facilities reporting to the ARB it is irrefragable that disputes will arise between the regulated community, 3rd party verifiers, and the ARB. Without a formal and structured process there will be no predictability to how these issues will be resolved further exacerbating the uncertainties to an emerging program and the inability to demonstrate compliance while the specific facility issues are resolved. Additionally, every air district and other statewide boards, departments or offices have statutory structures to resolve disputes in a manner that allows the facility to remain in compliance. [SF 23.05 – CCEEB]

Response: See Responses to B-22, N-3, and N-5. ARB notes that the commenter made an identical comment regarding the first 15-day modifications, and ARB provided a response to these comments in Response to N-5.

Y-63. Per Ton Penalty Metric Is Excessive and Inappropriate for AB 32 Program Requirements

Comment: CCEEB appreciates some of the proposed revisions and commitment to continued work on these provisions ARB made relative to the enforcement penalty provisions in Section 95107. However the changes do not recognize important aspects of the AB 32 verification program including the cost impact implications if ARB continues to maintain a per ton penalty provision. Our specific concerns are described as follows: Per Ton Penalty Metric Is Excessive and Inappropriate for AB 32 Program Requirements. CCEEB and other industry groups have discussed with ARB concerns with proposed penalty provisions. CCEEB believes it is inappropriate for ARB to structure a penalty structure based

on a per ton basis, simply because the AB 32 greenhouse gas (GHG) emission reporting program requirements result in inventory amounts that are exponentially greater compared to other (criteria pollutant inventory) programs. Therefore, a "per ton' criteria as a penalty provision is not only inappropriate, but could result in penalties in the tens or hundreds of millions of dollars. Recognizing these differences between the AB 32 GHG program and traditional criteria pollutant program requirements, CCEEB has previously suggested and continues to support a more appropriate penalty on a more appropriate metric, such as a "Per 1,000 Ton" metric, instead of per ton penalty. [SF 23.06 – CCEEB]"

Response: See Responses to B-11, N-26, and N-31.

Y-64. Sub-section (b) Fails to Recognized a Facility Obtaining a Positive or Qualified Positive Verification Determination

Comment: CCEEB has expressed continued concern with proposed Sub-sections (b) & (c), which as written, allows ARB authority to assess a penalty on any facility for each metric ton of CO_2e emitted and not reported, and for each failure to measure, collect, record or preserve information required by this article, regardless of the fact that facility had obtained a positive or qualified positive verification form their verifier. While the most recent revisions to Sections (b) and (c) provide some level of understanding in terms of when enforcement would initiate, and for section (b) some clarification that as long as the facility complies with the provisions of the article (MRR), they are not in violation, CCEEB remains concerned with these sections and provides the following comments:

Section (b): CCEEB has persisting concerns with the proposed revisions to Section (b), the new language added, while it clarifies no "enforcement action" will be taken until after the verification deadline date – as written it implies that a violation has occurred, and that no "enforcement action" will be taken during the verification period. CCEEB assumes it is not ARB's intent to pre-supposed that violations are occurring, however, as written it can be interpreted in that manner. CCEEB recommends ARB revise Section (b) to clarify that, after a facility has obtained a positive or qualified positive verification, no violation or enforcement action will be taken, unless ARB determines through an audit review or other information that demonstrates a pattern in past MRR reports of under reporting of GHG emissions by the facility. Recommendation: CCEEB recommends ARB revise Section (b) as follows:

> "Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation. ARB ~~will not~~ *may* initiate enforcement action under this subparagraph ~~until~~ *alleging that emissions were under-reported in an emissions data report only* after any applicable verification deadline for the pertinent report *and if ARB determines that there is a recurring pattern of under-reporting*.

Response: As an initial matter, ARB assumes that the commenter's reference to section 95107(b) was meant to address modified section 95107(c). In response to the comment, see Responses to Y-52 and Y-53.

Y-65. Sub-section (c) Fails to Recognized a Facility Obtaining a Positive or Qualified Positive Verification Determination

Comment: Section (c): CCEEB requests ARB state in the Final Statement of Reason (FSOR) that for the enforcement purposes, the MRR rule must be read as a whole, and a violation does not occur when an operator complies with an alternative provision applicable under the circumstances. For example, information will be considered to be measured, collected, recorded and preserved "in the manner required by this article" and no violation will occur when an operator complies with the pertinent missing data substitution or interim data collection procedures specified in Section 95129. [SF 23.08 – CCEEB]

Response: As an initial matter, ARB assumes that the commenter's reference to section 95107(c) in this comment was meant to address modified section 95107(d). In response to the comment, see Response to B-8.

Y-66. Subsections (b) & (c) Fail to Recognize a Facility Obtaining a Positive or Qualified Positive Verification Determination

Comment: WSPA expressed continued concern with proposed Sub-sections (b) & (c), which as written, allows ARB authority to assess a penalty on any facility for each metric ton of CO_2e emitted and not reported, and for each failure to measure, collect, record or preserve information required by this article, *regardless* of the fact the facility had obtained a positive or qualified positive verification from their verifier. While the most recent revisions to Sections 95107 provide some level of understanding in terms of when enforcement would initiate, and some clarification that as long as the facility complies with the provisions of the article (MRR regulation), they are not in violation, WSPA still remains concerned with these sections and provides the following comments:

Section (c): WSPA remains concerned with the proposed revisions to Section (b), while the new language added clarifies no "enforcement action" will be taken until after the verification deadline date – as written it implies that a violation has occurred, and that no "enforcement action" will be taken during the verification period. WSPA assumes it is not ARB's intent to pre-suppose that violations are occurring; however, as written it can be interpreted in that manner. WSPA recommends that ARB revise section (b) to clarify that after a facility has obtained a positive or qualified positive verification, no violation or enforcement action will be taken, unless ARB determines through an audit review or other information that demonstrates a pattern in past MRR reports of under reporting of GHG emissions by the facility. WSPA recommends ARB revise Section (b) as follows:

"Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation. ARB ~~will not~~ *may* initiate enforcement action under this subparagraph ~~until~~ *alleging that emissions were under-reported in an emissions data report only* after any applicable verification deadline for the pertinent report *and if ARB determines that there is a recurring pattern of under-reporting. No violation or enforcement action will be taken if a facility obtains a positive or a qualified positive verification.* [SF 09.10 – WSPA]

Response: As an initial matter, ARB assumes the commenter's reference to section 95107(b) was meant to address modified section 95107(c). In response to the comments seeking to limit ARB enforcement to those instances where ARB would determine a recurring pattern of under-reporting, see Responses to Y-52 and Y-53. Further, ARB declines to make the requested modification that "No violation or enforcement action will be taken if a facility obtains a positive or a qualified positive verification" for the reasons expressed in Responses to B-12, N-11, N-12, and Y-52.

Y-67. Per Ton Penalty Metric is Excessive and Inappropriate for AB 32 Program Requirements

Comment: WSPA believes it is inappropriate for ARB to structure a penalty structure based on a per ton basis, simply because the AB32 GHG emission reporting program requirements result in inventory amounts that are exponentially greater compared to other historical (criteria pollutant inventory) programs. Therefore, a "per ton" criteria as a penalty provision is not only inappropriate, but could result in penalties in the tens or hundreds of millions of dollars. Recognizing these differences between the AB32 GHG program and traditional criteria pollutant program requirements, WSPA believes it is more appropriate to set the penalty on a more appropriate metric, such as a "Per 1,000 Ton" metric, instead of per ton penalty. [SF 09.09 – WSPA]

Response: See Responses to B-11, N-26, and N-31.

Y-68. Revise Section 95107(c) to Require a Determination of a Recurring Pattern of Under-Reporting Prior to Seeking Enforcement

Comment: As we previously conveyed, we appreciate CARB taking into account the concerns we highlighted in our August 11, 2011 letter and making some modifications to the penalty provisions in both the Mandatory Reporting and cap-and-trade regulations and the additional edits in the 15-day rulemaking packages. However, there are crucial areas within the Mandatory Reporting Regulation (MRR) that we believe must be addressed in order to clarify the proposed regulation. Below please find suggested language revisions to Section 95107(c) and (d). While we understand the proposed revisions to Section (c), we believe additional clarification is needed and recommend CARB incorporate the following revisions:

Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation. CARB ~~will not~~ may initiate enforcement action under this subparagraph ~~until~~ alleging that emissions were under-reported in an emissions data report only after any applicable verification deadline for the pertinent report and if ARB determines that there is a recurring pattern of under-reporting. [SF 06.02 – ABIG]

Response: See Responses to Y-52 and Y-53.

Y-69. Clarify in the FSOR that No Violation Will Occur When An Operator Uses Missing Data Substitution or Interim Data Collection Procedures in Section 95129
Comment: As we discussed, while the proposed revisions are helpful and we appreciate CARB listening to our concerns, we would ask that CARB state in the FSOR for Section (d), that for enforcement purposes, the MRR rule must be read as a whole, and a violation does not occur when an operator complies with an alternative provision applicable under the circumstances. For example, information will be considered to be measured, collected, recorded and preserved "in the manner required by this article" and no violation will occur when an operator complies with the pertinent missing data substitution or interim data collection procedures specified in section 95129. [SF 06.03 – ABIG]

Response: See Response to B-8.

Y-70. Should Not Be Subject to Penalties Prior to Verification
Comment: We believe that the Mandatory Reporting and cap-and-trade regulations must recognize the period when a facility is working in good faith with its verifier to obtain a positive or qualified positive emissions report prior to the verification deadline date, and should not be subject to penalties under Section 95107. [SF 06.04 – ABIG]

Response: See Responses to B-12, N-10, N-11, and N-12. ARB notes that the commenter made an identical comment regarding the first 15-day modifications, and ARB provided a response to these comments in Response to N-10.

Y-71. Move Second Sentence of 95107(c) to 95107(a)
Comment: CCEEB recommends moving second sentence in 95107(c) to 95107(a) and changing the word "subparagraph" to "section".

(a) Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In seeking any penalty amount, ARB shall consider all relevant circumstances, including any pattern or violation, the size and complexity of the reporting entity's operations, and the other criteria in Health and Safety Code section 42403(b). ARB will not initiate enforcement action under this section until after any applicable verification deadline for the pertinent report. [SF 23.07 – CCEEB]

Response: The sentence referenced by the commenter was added to section 95107(c) specifically to address concerns raised by various commenters on that individual provision ("Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation."). Modified section 95107(b) relates to submitting reports in a timely, complete, and accurate manner. Modified section 95107(d) relates to the measurement methods, collection methods, record keeping, and preservation of information required to complete emission data reports and verification statements. Outside of section 95107(c), ARB believes it must maintain the ability to pursue an enforcement action (should it be deemed necessary, and depending on all relevant circumstances), prior to any applicable verification deadline to ensure adequate compliance with the regulation. As written, for example, ARB could promptly initiate enforcement action based on a late or missing report, without waiting for a later deadline. As such, ARB declines to make the modification recommended by the commenter.

Y-72. Clarify in the FSOR that No Violation Will Occur When An Operator Uses Missing Data Substitution or Interim Data Collection Procedures in Section 95129
Comment: WSPA requests that ARB provide clarification in the FSOR that for enforcement purposes, the MRR rule must be read as a whole, and a violation does not occur when an operator complies with an applicable alternative provision. For instances, information will be considered to be "measured, collected, recorded and preserved "in the manner required by this article" and no violation will occur when an operator complies with the pertinent missing data substitution or interim data collection procedures specified in section 95129. [SF 09.11 - WSPA]

Response: See Response to B-8.

Y-73. Take into Account Whether Error was Minor and Corrected During Verification
Comment: When determining whether to bring enforcement proceedings for an inaccurate report under section 95107(c), the ARB should take into account whether the error was a minor one that was identified and corrected during the verification process. [SF 21.03a – SCPPA]

Response: See Responses to B-10 and B-12.

Y-74. Clarify the Treatment of Pre-Verification Errors
Comment: The Proposed Changes insert a new sentence in section 95107(c) (p. 94) providing that enforcement action will not be initiated under section 95107(c) until after verification. But the ARB notice and summary of the Proposed Changes notes, at page 6, that "this addition is not intended to relieve reporting entities of the obligation to submit accurate reports by the reporting deadline." Presumably the ARB is still able to take enforcement action (after verification) against an entity for an error in a report that is corrected during verification. SCPPA members will make every effort to ensure their reports are accurate. However, it is inevitable that some minor errors will occur, particularly in the first

years of reporting under the revised Regulation when reporting entities are unfamiliar with the new requirements. The Regulation also envisages that errors will be found and reports will be corrected during the verification process. Section 95131(b)(9) (p. 234) provides for a revised report to be submitted after the verifier has checked data and prior to completion of verification. Errors that are corrected during verification are inconsequential. The primary purpose of the Regulation is to support the cap and trade program. Errors that are corrected during verification do not affect the calculation of an entity's compliance obligation under the Cap and Trade Regulation, given that calculations of compliance obligations under the Cap and Trade Regulation are based on verified reports (§ 95853 (p. 107) and § 95855 (p. 109) of the Cap and Trade Regulation). By including the requirement to wait until after verification to initiate enforcement action for errors in a report, the implication is that the ARB will take into account, in deciding whether or not to pursue enforcement, whether the error has been corrected during verification. This should be made explicit in section 95107(c).

(c) Each metric ton of CO_2e emitted but not reported as required by this article is a separate violation. ARB will not initiate enforcement action under this subparagraph until after any applicable verification deadline for the pertinent report. In deciding whether to initiate enforcement action under this subparagraph ARB will take into account the cause of the under-reporting and whether the under-reporting was corrected during verification of the pertinent report pursuant to section 95131(b)(9). [SF 21.03b – SCPPA]

Response: In response to the portion of the comment referring to errors corrected during verification, see Responses to B-10 and B-12. In addition, ARB believes that the modifications in section 95107(a) already require it to consider all relevant circumstances in the event it determines enforcement action is necessary. As such, ARB does not believe the requested modification to section 95107(c) is necessary and declines to make the change.

Y-75. Further Changes are Not Necessary
Comment: Section 95107: Penalties - SCE appreciates the improvements that ARB has made to the reporting requirements to address stakeholder concerns. SCE does not believe that any further changes to this section are necessary. [SF 26.05 – SCE]

Response: The comment does not seek any additional modifications. ARB appreciates the commenter's support for the enforcement provisions as modified.

Z. Subarticle 2. Electric Power Entities (§95111)

Z-1. Asset Controlling Supplier Recognition
Comment: 95111(a)(5): A mechanism is needed for other entities to become recognized by ARB as Asset Controlling Suppliers. The Mandatory Reporting

Regulation should include a process whereby other entities that operate or serve as an exclusive marketer for a system or fleet of generating facilities can become recognized by ARB as an Asset Controlling Supplier. For example, LADWP has a contract with Powerex to purchase renewable electricity from the BC Hydro system. However, Powerex is not recognized by ARB as an Asset Controlling Supplier, and does not have an ARB ID. Without an ARB ID, LADWP cannot report this renewable electricity as a specified import, so will have to report this renewable electricity as an unspecified import with default emissions. If renewable electricity qualifies for compliance with the state's RPS program, it should also be recognized and reported as zero emission under the mandatory reporting regulation. To address this issue, the MRR should include a mechanism for other entities to become recognized as an Asset Controlling Supplier and obtain an ARB ID, so that power imported from their system can be reported as a specified import. [SF 11.22 – LADWP]

Response: Powerex has had the ability to request an asset-controlling supplier identification number pursuant to provisions in the MRR in effect for 2008, 2009, and 2010 data, but has not chosen this option to date, nor have they provided the necessary information to calculate an asset-controlling supplier system emission factor for the Powerex system at this time; however, the option remains open under section 95111(f). See Response to D-10 regarding asset-controlling supplier recognition. LADWP's RPS electricity can be reported by Powerex in one of two ways: as specified, if it is directly delivered and imported into California, or pursuant to the RPS adjustment described in MRR section 95111(b)(5) and section 95852(b)(4) of the cap-and-trade regulation. If Powerex were to become recognized as an asset-controlling supplier and sell RPS electricity out of its fleet, those MWh would be removed from the system emission factor pursuant to the equation in 95111(b)(3).

Z-2. Asset-Controlling Supplier Recognition

Comment: "ARB Should Amend the Rules to Clarify that Entities other than BPA may be Classified as "Asset-Controlling Suppliers." In Powerex's August 11, 2011 comments, we expressed concern that removing Pacificorp and Sierra Pacific Power Company from the definition of "asset-controlling supplier" in both the MRR and the cap-and-trade rule could lead to an inappropriate interpretation that no entity other than BPA could become an asset-controlling supplier. Limiting the eligibility for categorization as an asset-controlling supplier to BPA, would be to the detriment of comparable hydropower resources in the Pacific Northwest such as the hydropower generation facilities owned and controlled by Powerex's parent BC Hydro. We do not believe that this is ARB's intent, but the second set of proposed 15-Day Modifications to the MRR fails to clarify that the asset-controlling supplier category is not restricted to BPA. Indeed, some of the changes since the first set of proposed 15-Day Modifications in July make it more likely that the rule could be interpreted as limiting the definition to BPA.

BPA is of course government-owned. It is an agency within the U.S. Department of Energy, and was created by Congress in 1937. 16 U.S.C. Sections 832-832m. BPA was ""tasked with marketing the power generated by federally-owned dams on the Columbia River."" Portland General Electric Company v. Bonneville Power administration, 501 F.3d 1009 (9th Cir. 2007). The special treatment of BPA in the rules highlights the fact that ARB has ""National Treatment"" obligations to Powerex under Chapters Six and Eleven of the North American Free Trade Agreement (""NAFTA""), Dec. 17, 1992, U.S.-Mex.-Can., 32 I.L.M. 289, chapts. 6, 7 (1993). Powerex and its parent BC Hydro are both owned by the Province of British Columbia, and Powerex is tasked by British Columbia with marketing the power generated by provincially owned dams on the Columbia and Peace Rivers. The Ninth Circuit Court of Appeals has ruled that BC Hydro is a foreign sovereign under the Foreign Sovereign Immunities Act (“FSIA”), 28 U.S.C. §§ 1602-1611, and that Powerex is an “organ of a foreign state” under the statute. Cal. Dep't of Water Resources v. Powerex Corp., 533 F. 3d 1087 (9th Cir. 2008). In pleadings submitted to the Court in that case, the US Department of State, as well as the Governments of Canada and British Columbia, supported the interpretation of the law that underlies this finding. Thus, in terms of government ownership and the legal status that it confers, Powerex is indistinguishable from BPA.

Under NAFTA's National Treatment standard, Powerex is entitled to parity treatment with BPA. This requirement extends to actions by states, including the compliance obligations placed by the ARB rules on first deliverers of imported electricity. Such actions fall within the definition of an “energy regulatory measure” under Chapter Six of NAFTA, which is defined in Article 609 of NAFTA as, ... any measure by federal or sub-federal entities that directly affects the transportation, transmission or distribution, purchase or sale, of an energy or basic petrochemical good.

Electricity is considered an ”energy good” under Chapter Six of NAFTA, and energy regulatory measures are thus subject to NAFTA's National Treatment standard. This standard requires each NAFTA Party — in this case, ARB as a sub-federal governmental entity — to accord investors of another NAFTA Party and their investments,

. . . treatment no less favorable than it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation and sale or other disposition of investments. Powerex qualifies as a NAFTA investor for National Treatment purposes. If an energy regulatory measure by ARB under Chapter Six of NAFTA violates that standard, Powerex would be entitled to file a claim under Chapter Eleven of NAFTA. Such an action necessarily would implicate the federal government of the United States.

To mitigate the potential for any NAFTA claim with respect to the compliance obligation placed by the ARB rules on first deliverers of imported electricity, Powerex strongly encourages ARB to modify the language in the rules to clarify that the category of Asset-Controlling Suppliers is not limited to BPA. To avoid running afoul of NAFTA, Powerex urges ARB to modify the MRR as provided in the full comment letter. [SF 22.02a – PX]

Response: As explained in Response to D-10, the provisions related to asset-controlling suppliers are not limited to BPA. Any entity that meets the definition of asset-controlling supplier pursuant to section 95102(a) has the option to report to ARB and include the additional information required in section 95111(f) to receive a system emission factor based on the calculation method in 95111(b)(3). This emission factor will be calculated based on the information provided by the entity. Because the emission factor is specific to the entity, asset-controlling suppliers will not necessarily have the same system emission factor as any other asset-controlling supplier. Rather, the system factor for an asset-controlling supplier is calculated based on the information provided about the entity's fleet, and the resulting factor could be above or below the default emission factor for unspecified sources. ARB will work carefully with any applicant for asset-controlling supplier status to ensure successful program implementation, and to avoid the reporting of GHG emissions in a manner that conflicts with the resource shuffling provisions of the cap-and-trade regulation. ARB will provide the emission factors calculated for asset-controlling suppliers on its mandatory reporting website, along with the emission factors for other specified sources.

Moreover, ARB notes that Powerex has had the ability to request an asset-controlling supplier identification number pursuant to provisions in the MRR in effect for 2008, 2009, and 2010 data, but has not chosen this option to date, nor have they provided the necessary information to calculate an asset-controlling supplier system emission factor for the Powerex system at this time; however, as explained above, the option remains open under the modified MRR. BPA applied and its current system emission factor is based on the calculation provided in section 95111(b)(3) and data provided by BPA pursuant to the 2007 MRR. Since the asset-controlling supplier option is available to any entity that meets the definition in section 95102(a), not just BPA, ARB did not make the suggested changes.

Based on the above explanation that the asset-controlling supplier provisions are not limited to BPA and are available for Powerex and BC Hydro should they choose to apply, ARB believes Powerex's NAFTA claims are misplaced. Moreover, even if Powerex chooses not to apply as an asset-controlling supplier, ARB believes that Powerex is still treated consistently with all importers, including the Western Area Power Administration, a U.S. federal government entity like BPA. These importers must report electricity imported into California as specified, including particular hydroelectric generating

facilities, when it meets the requirements for a valid claim to specified sources pursuant to section 95111. Hydroelectric generating facilities will be given an emission factor of 0 MT of CO_2e/MWh.

Z-3. Asset Controlling Supplier Recognition and Electricity Supplied by BPA
Comment: The rules for imports from asset-controlling suppliers would provide opportunities for resource-shuffling of electricity sourced from the Bonneville Power Administration. WPTF has previously provided detailed comments on this topic and therefore will not repeat these comments here. [SF 16.04 – WPTF]

Response: See Response to D-10 regarding ARB recognition of asset-controlling suppliers. In the specific instance raised by the commenter, ARB has concluded resource shuffling is not a concern, since surplus electricity from the BPA system has historically served California load. BPA purchases power to balance their system, and pursuant to federal law, BPA is limited to selling only surplus system power. ARB will work carefully with applicants for asset-controlling supplier status to ensure successful program implementation, and to avoid the reporting of GHG emissions that are not real in support of the resource shuffling provisions of the cap-and-trade regulation.

Z-4. Covered Emissions
Comment: Redundant definitions in section 95111(b)(5) should be deleted to avoid confusion. Section 95111(b)(5) (p 115) on the calculation of covered emissions defines the following terms that are also defined, somewhat differently, in section 95852(b)(1)(B) (p. 89) of the Cap and Trade Regulation:

- CO_2e covered
- CO_2e unsp, referred to as CO_2e unspecified in the Cap and Trade Regulation
- CO_2e sp, referred to as CO_2e specified in the Cap and Trade Regulation
- CO_2e sp-not covered, referred to as CO_2e specified-not covered in the Cap and Trade Regulation
- CO_2e RPS adjust, referred to as CO_2e RPS_adjustment in the Cap and Trade Regulation
- CO_2e QE adjust, referred to as CO_2e QE_adjustment in the Cap and Trade Regulation
- CO_2e linked

There is potential for confusion if the same terms are defined differently in the two regulations. The problem should be solved by deleting the definitions from section 95111(b)(5). They do not provide any information that is not set out in the Cap and Trade Regulation or in other parts of section 95111. Confusion may be caused by the fact that the subscripts as well as the definitions are slightly different from those used in the Cap and Trade Regulation (e.g., "CO_2e unsp" instead of "CO_2e unspecified").

In addition, the definition of "CO_2e RPS adjust" in section 95111(b)(5) uses the incorrect term "California eligible renewable energy resource" instead of the defined term "eligible renewable energy resource."

The requirement to report the information needed to calculate the compliance obligation can be expressed in the Regulation by referring to section 95852(b)(1)(B) of the Cap and Trade Regulation as follows:

§ 95111(b)(5) Calculation of covered emissions. For imported electricity with covered emissions as defined pursuant to section 95102(a), the electric power entity must calculate and report covered emissions pursuant to the equation in section 95852(b)(1)(B) of the cap-and-trade regulation and include the following information: on the number of annual metric tons of CO_2e in each of the following categories, as defined in section 95852(b)(1)(B) of the cap-and-trade regulation: CO_2e unspecified, CO_2e specified, CO_2e specified-not covered, CO_2e RPS_adjustment, CO_2e QE_adjustment, and CO_2e linked. The calculation of the CO_2e RPS_adjustment is further defined below. [SF 21.04 – SCPPA]

Response: ARB believes the terms listed in the comment are clearly defined in the MRR and are consistent with the cap-and-trade regulation. "Eligible renewable energy resource" is the defined term in California law. The word "California" was removed from the phrase "California eligible renewable energy resource" in the definition of "CO_2e RPS adjust" in section 95111(b)(5). The word "California" was removed from the phrase "California eligible renewable resource" in the definition of "MWh_{RPS}" in section 95111(b)(5) and the word "energy" was added. Consistent with ARB practices in implementing the 2007 MRR, ARB will continue to work with reporting entities to ensure successful program implementation.

Z-5. Default Emission Factor for Unspecified Electricity

Comment: The level of the default emission rate as calculated by the WCI Default Emission Factor Calculator is not representative of marginal generation within the area of the Western Electricity Coordinating Council, will disadvantage in-state resource and increase the potential for resource-shuffling. WPTF has previously provided detailed comments on this topic and therefore will not repeat these comments here. [SF 16.01 – WPTF]

ARB should increase the default EF for unspecified power - if not prior to finalizing the amendments then in subsequent rule making. ARB should commence further rulemaking to further evaluate the appropriate rate and market distortions that will be caused by setting the default rate lower than the emissions from market-clearing marginal sources of imported power. [SF 19.01 – CALPINE]

Response: See Responses to 0 and P-19 regarding the appropriate default emission factor for unspecified sources.

Z-6. Electricity Historically Consumed in California— Contract Period and GPE Status

Comment: In the Mandatory Reporting in Rule Section 95111 (g)(4)(A) regarding specification of import sources, CARB identifies parameters that would define a historical commitment of an out-of-state resource to serve California loads and resolve resource shuffling concerns based on historical sales. The definition should be revised as shown below, to provide additional flexibility in cases where historical sales from a given facility were both under a power contract with a California load-serving entity and via spot sales into the California Independent System Operator (CAISO) markets. In cases where the facility contract in effect prior to January 1, 2010 has expired, the Rule should recognize contracting with alternate California loads without time limitation, or simply making spot sales into the CAISO markets as continuing to qualify as a Specified Source. Further, given that spot sales to California are not "renegotiated" in the traditional sense, the Rule should be revised to delete this provision. The appropriate changes are shown in full comment letter. [SF 12.01 – SG]

Response: See Response to P-17 regarding the relationship between the cap-and-trade regulation definition of resource shuffling and MRR section 95111(g)(4).

Z-7. Electricity, Continued Stakeholder Workshops and Rulemaking

Comment: WPTF understands the Board's desire to adopt modifications to the reporting regulation to support implementation of the cap and trade program in 2012, and the concern that an acknowledgement that further refinements to the reporting regulation are necessary may stand in the way of such implementation. WPTF does not believe that action by the Board to preserve the ability for Staff to continue vetting these important issues with market participants, and to bring modifications to the Board as necessary, will in any way conflict with adoption of the revised regulation in October. WPTF supports adoption of the Amendments to the Reporting Regulation, provided that CARB work to improve the reporting regulation through stakeholder workshops and rule-making in 2012. [SF 16.06 – WPTF]

We therefore urge that the following language be include in the Board Resolution adopting the Amendments to the Regulation: "The Board directs the Executive Officer of the Air Resource Board to work with interested stakeholders to review reporting requirements for imported electricity and make such modifications as may be appropriate to ensure that: 1) Reporting requirements are consistent with the cap and trade program rules; 2) In-state generation and imports subject to the cap and trade program accurately reflect California consumption of electricity; 3) The method for determination of the

default emission rate results in a value which does not disadvantage in-state resources, is representative of marginal generation within the WECC, and remains relatively stable over time. The Board further directs the Executive Officer to work with interested stakeholders to develop guidance documents, including representative energy import scenarios, to be used by electric power entities and third party verifiers that clarify: 1) The entity responsible for reporting imports, 2) Conditions for legitimate claims of specified imports, and 3) Conditions under which import transactions would be considered resource-shuffling. The Board further directs the Executive Officer to work with California Balancing Area Authorities and other entities as appropriate to establish processes to verify that all electricity imports subject to the cap and trade program are reported." [SF 16.07 – WPTF]

Response: ARB appreciates support for the MRR as amended and believes legal requirements pursuant to the final MRR amendment are clear. Consistent with ARB practices in implementing the current MRR, ARB will continue to work with reporting entities to ensure successful program implementation. ARB continually evaluates its programs and will determine when future amendments are appropriate.

Z-8. First POR Location and Specified Sources

Comment: 95111(a)(4): Information reported for specified electricity imports should include whether or not the first point of receipt is located in a linked jurisdiction. Information reported for unspecified and specified electricity imports should be consistent. For unspecified imports, the reporting requirements include "Whether the first point of receipt is located in a linked jurisdiction published on the ARB Mandatory Reporting website". This provision is missing from the information reported for specified imports and should be added. Electricity imported from a linked jurisdiction, regardless of whether it is from an unspecified or specified source, should not carry a compliance obligation under California's cap-and-trade regulation because the compliance obligation would already be satisfied in the home jurisdiction.

In addition, terms used in the reporting requirements should be consistent with terms defined in section 95102. Since "Specified Facilities or Units" is not a defined term, it should be replaced by "Specified Sources" which is a defined term.

Lastly, section 95111(a)(1) states that the electric power entity must report GHG emissions separately for each category of delivered electricity required, in metric tons of CO_2 equivalent (MT of CO_2e), according to the calculation methods in section 95111(b). Restating "are calculated pursuant to section 95111(b)" again in 95111(a)(4) is redundant and makes no sense within the context of the sentence. Therefore, LADWP recommends the changes to 95111(a)(4) provided in the full comment letter. [SF 11.21 – LADWP]

Response: Emissions from all sources, specified and unspecified, located in linked jurisdictions will be subtracted from the compliance obligation pursuant to the equation in section 95852(b)(1)(B) of the cap-and-trade regulation. ARB concluded it is not necessary for the reporting entity to tell ARB whether the first point of receipt for a specified source is located in a linked jurisdiction, since the reporting entity must also provide the physical address of the facility during registration. The physical address of the facility provides the needed information. It is the reporting entity's responsibility to determine whether the first points of receipt for unspecified sources are located in linked jurisdictions.

ARB retained the term "specified facilities or units" which is included in the term "specified sources" defined pursuant to section 95102(a).

ARB also retained the restatement "are calculated pursuant to section 95111(b)" in 95111(a)(4) and believes this is necessary to provide clarity to reporting entities.

Z-9. Qualified Exports

Comment: The approach to netting of 'qualified exports' against an entity's imports within the same hour will significantly overstate California electricity consumption, thereby arbitrarily and unnecessarily raising allowance prices and overall electricity prices, and making the cap and trade regulation more vulnerable to legal challenges from electricity importers. [SF 16.02 – WPTF]

Response: See Response to D-1 regarding statewide GHG emissions, energy exchanges, and qualified exports adjustment.

Z-10. Registration of Sources

Comment: Section 95111(g) (1) Registration of Specified Sources: MSCG continues to have both confusion and concern regarding the requirements to provide a roster of "anticipated" specified sources. After reading the revised language in the latest draft, we have at least come to consider one possible interpretation that may not create a problematic obligation. In our comments on the prior iteration, our reading of this section was that it required a forecast prior to the business year of anticipated specified sources. Such a forecast could certainly be done, but would be so inherently inaccurate as to be pointless for both ARB and the Market Participant. Upon reading the revised language in the most recent iteration, another possible interpretation has suggested itself to us. We now see a possibility that the intent is for market participants to provide a list of resources from the prior year's business that it intends to report as specified sources when it submits its final and "official" report of imported electricity and attributed emissions. That is, the "anticipated" portion of the regulation refers to resources anticipated to be reported as "specified" in the report, based on actual business done in the prior year, not resources anticipated to be reported as specified for business to be done in the upcoming year. If this is in fact the intent, then it is much less problematic. Assuming our

alternate possible understanding of the intent is accurate, we do not see any significant problems in complying (although the utility of the rule is not clear to us). However, we would urge the ARB to re-draft the language to make the actual intent clearer. [SF 10.04 – MSCG]

Response: The commenter's second interpretation is correct and ARB concludes the regulation is clear as it states, "Each reporting entity must … register its anticipated specified sources … by February 1 following each data year…." The term "data year" is defined pursuant to section 95102(a) as "the calendar year in which emissions occurred." Therefore, section 95111(g) requires each reporting entity to provide a list of resources from the prior year's business that it intends to report as specified sources when it submits its final and "official" report of imported electricity and attributed emissions. ARB agrees that this requirement does not create a problematic obligation.

Z-11. Reporting Entity and Reporting Requirements

Comment: The regulation does not provide sufficient clarity regarding the responsible entity and reporting requirements for electricity imports under various scenarios, nor conditions under which importers may claim a facility-specific emission rate. WPTF has previously provided detailed comments on this topic and therefore will not repeat these comments here. [SF 16.03 – WPTF]

Response: ARB believes legal requirements pursuant to the final MRR amendment are clear. Consistent with ARB practices in implementing the current MRR, ARB will continue to work with reporting entities to ensure successful program implementation. ARB continually evaluates its programs and will determine when future amendments are appropriate.

Z-12. Requirements to Document Valid Claim to Specified Power

Comment: Section 95111(g)(4): MSCG's interpretation of this section is that it is a reporting requirement, not an eligibility list of required circumstances for treating a resource as "specified". Rather, our reading is that eligibility for treatment of a resource as "specified" is outlined in the definitions of "Specified Resource" (#364) and "Direct Delivery of Electricity" (#108), read in conjunction with 95111(g)(3), "Delivery Tracking Conditions Required for Specified Electricity Imports". Furthermore, the language in 95111(g)(4) says "…importer must indicate whether one or more of the following descriptions applies". In our reading, the use of the word "whether" here indicates that none of the following conditions is required. Rather, our assumption is that the information referred to is desired for tracking and information gathering purposes. If this is not the intended interpretation, then MSCG would urge that some additional work be done on the wording to make the actual intent clear. [SF 10.05 – MSCG]

Response: The commenter's paraphrasing provides an accurate interpretation. ARB concludes the regulation is clear.

Z-13. Resource Shuffling and Reporting Requirements for Specified Sources
Comment: Specified source reporting requirements in section 95111(g)(4) should be included in review of resource shuffling in 2012.

Section 95111(g)(4) (p. 126) sets out additional reporting requirements for specified sources that appear to relate to resource shuffling. SCPPA has significant concerns with the resource shuffling provisions in the Cap and Trade Regulation and recommends that these provisions be deferred to another proceeding in 2012 in which they can be evaluated more fully.

The resource shuffling provisions in the Regulation should be included in the review of the resource shuffling provisions in the Cap and Trade Regulation, to ensure that the resource shuffling-related reporting requirements are clear and appropriate.

One key issue the review should address is whether certain information reported under the Regulation could lead to the importer being charged with resource shuffling under the Cap and Trade Regulation.

Another issue arises in section 95111(g)(4)(A) as currently drafted. This section requires reporting of situations in which more than 80 percent of net generation from a specified facility was imported into California in 2009 or 2010. The 80 percent requirement seems arbitrary and is very high, considering that any one California importer may take only a small fraction of the electricity generated by a large out-of-state facility.

The Resolution should include the following wording to ensure that section 95111(g)(4) of the Regulation is evaluated in full together with the Cap and Trade Regulation resource shuffling provisions:

""BE IT FURTHER RESOLVED THAT the Board directs the Executive Officer to include section 95111(g)(4) in the public review of the resource shuffling provisions in the cap-and-trade regulation for the purpose of ensuring that appropriate reporting requirements support the resource shuffling provisions as they may be revised pursuant to the public review. [SF 21.06 – SCPPA]

Response: ARB has sufficient data from 2009 and 2010 data reports to sum the imported electricity reported by all reporting entities sourced from any one facility to determine which facilities will fall into this information category. ARB will provide this information to reporting entities when they register a claim to specified electricity from these facilities. See Response to P-17 regarding the relationship between the cap-and-trade regulation definition of resource shuffling and MRR section 95111(g)(4).

ARB believes legal requirements pursuant to the final MRR amendment are clear. Consistent with ARB practices in implementing the current MRR, ARB will continue to work with reporting entities to ensure successful program implementation. ARB continually evaluates its programs and will determine when future amendments are appropriate.

Z-14. Resources Shuffling and Reporting Requirements for Specified Sources
Comment: The Relationship Between Section 95111(g)(4) of the MRR and the Cap-and- Trade Rule's Definition of Resource Shuffling Remains Unclear. In its August 11, 2011 comments, Powerex asked ARB to explain the relationship between resource shuffling, as that term is defined in the cap-and-trade rule, and the "specified source" requirements of Section 95111(g)(4) of the MRR. Section 95111(g)(4) appears to list characteristics whereby if at least one of them is applicable to an electricity delivery from a specified source, that delivery will not be considered to be resource shuffling. ARB did not respond to Powerex's request for clarification. If, indeed, the characteristics listed in Section 95111(g)(4) of the MRR are intended to function as categories of "safe harbor" under the resource shuffling provisions, then Powerex urges ARB to make the following changes. First, in order to satisfy the United States' obligations under NAFTA, the special treatment afforded to the federally-owned power suppliers under Section 95111(g)(4)(B) must be extended to provincially-owned entities such as Powerex, which is wholly owned and controlled by BC Hydro, a foreign sovereign. As noted above in Section I above, NAFTA's National Treatment standard requires that Powerex and BPA be accorded parity treatment. To be consistent with NAFTA, Section 95111(g)(4)(B) should be revised as follows: Deliveries from existing federally or provincially owned hydroelectricity facilities by exclusive marketers. Electricity from specified federally or provincially owned hydroelectricity facility delivered by exclusive marketers. Second, Powerex urges ARB to eliminate Section 95111(g)(4)(C) of the MRR because the phrase "deliveries from existing federally owned hydroelectricity facilities allowed under contract" appears to excuse from the definition of resource shuffling the precise type of activity that the cap-and-trade rule seeks to discourage. The clause seems to presume that deliveries by the exclusive marketers of federally owned hydroelectricity facilities are limited to surplus electricity and, thus, would never constitute resource shuffling. But this is a false assumption. In fact, there is no way to ensure that entities with such contracts would limit their deliveries of this electricity to California to its surplus rather than maximizing the delivery of this federal power to California and back filling its load requirements with market power. Rather, as currently drafted, this provision would give these entities an incentive to engage in such activity to maximize the value of the emissions-free power from the federal facilities. Surely such activity would qualify as a "scheme or artifice to receive credit based on emission reductions that have not occurred" — i.e., resource shuffling. Accordingly, Section 95111(g)(4)(C) should be deleted. [SF 22.04 – PX]

Response: See Response to P-17 regarding the relationship between the cap-and-trade regulation definition of resource shuffling and MRR section 95111(g)(4). See also Response to Z-2 regarding the commenter's concerns with NAFTA.

Z-15. FERC Jurisdiction, Commerce Clause, and RPS Adjustment

Comment: The Renewable Portfolio Standard Adjustment Includes a Potentially Fatal Flaw that can be Easily Fixed. Powerex understands that the Renewable Portfolio Standard ("RPS") Adjustment provisions are critical to ensure that the zero-emission components of renewable energy are properly counted under the RPS, the MRR and the cap-and-trade rule. Powerex therefore supports the inclusion of some form of RPS Adjustment in the cap-and-trade rule. However, as currently drafted, the RPS Adjustment is at risk of legal challenge on two grounds. First, the RPS Adjustment may impermissibly intrude upon the jurisdiction of FERC. The Federal Power Act ("FPA"), 16 U.S.C. §§ 791-828c, gives FERC exclusive jurisdiction over sales of electricity at the wholesale level in U.S. interstate commerce, and over the interstate transmission of electricity. 16 U.S.C. 824(b); Duke Energy Trading & Marketing, LLC v. Davis, 267 F.3d 1042 (9th Cir. 2001); State of Cal. v. Dynegy, Inc., 375 F. 3d 831 (9th Cir. 2004). This jurisdiction preempts other federal or state agencies from taking any action that would encroach on matters entrusted by Congress to FERC alone, including matters such as the justness and reasonableness of rates and charges of wholesale power sellers, the use of interstate transmission capacity, and, most important here, the operation of interstate power markets, including review of any action or conduct that could result in undue discrimination against, or undue preference to, a market participant.

In its currently-proposed form, the RPS Adjustment could constitute impermissible discriminatory treatment of imported power. Specifically, the proposed RPS Adjustment methodology at Section 95852(b)(4) of the cap-and-trade rule that requires the associated RECs to be used to comply with California RPS requirements improperly restricts the low carbon intermittent generation that can be delivered and credited to those entities under contract to deliver RPS power to California load serving entities ("LSEs"). This has the practical effect of granting an undue preference to the California LSEs, and unduly discriminating against first deliverers of imported power into the state that do not have RPS contracts with a California LSE. In addition, by limiting the low-carbon intermittent generation to "eligible renewable energy resources" as defined in Section 399.12 of the Public Utilities Code, it also appears that the RPS Adjustment would interfere with the flow of certain power deliveries in interstate commerce in favor of California's local interests. Shaping of intermittent generation is inherently incident to sales of electricity at the wholesale level in interstate commerce. As a result, the RPS Adjustment, as currently drafted, falls plainly within FERC's FPA jurisdiction, both because of its impact on the movement of wholesale electricity across California's border and its undue discrimination in favor of California LSEs.

Second, the restriction of the RPS Adjustment to California LSEs makes it vulnerable to a Commerce Clause challenge. Specifically, by limiting the RPS Adjustment to California LSEs, the cap-and-trade rule discriminates against interstate commerce in favor of local interests in much the same way as Louisiana's first use tax on natural gas pipelines crossing the state did, a regulation that was struck down as unconstitutional by the United States Supreme Court in Maryland v. Louisiana. 451 U.S. 725 (1981).

FPA preemption and constitutional challenges under the Commerce Clause could pose serious threats to the RPS Adjustment and thus to the cap-and-trade rule itself. This is unfortunate, as the objective of the RPS Adjustment is not discriminatory; rather, it is to ensure the proper accounting of the zero-emission components of renewable energy. Fortunately, protecting the RPS Adjustment from these challenges requires only minor changes to the proposed regulatory text. (This comment leads into comments SF 22.03a --22.03c.) [SF 22.03a – PX]

Response: This comment was submitted into the public record for both the MRR and the cap-and-trade regulation. It is not applicable to MRR, since the comments concern the costs to comply with the cap-and-trade regulation. To the extent the comment concerns impartial GHG emissions accounting, the comment is addressed here.

The final MRR amendments require annual source-based GHG emissions accounting for all electricity, specified and unspecified, that is directly delivered to California. Two adjustments are provided on an impartial basis to reduce the compliance obligation of electricity importers: the RPS adjustment and the qualified exports adjustment.

The RPS adjustment applies to electricity that is not directly delivered to California, and therefore is not included in statewide GHG emissions accounting. The RPS adjustment is not a recognition of avoided emissions, but an adjustment to the compliance obligation to recognize the cost to comply with the RPS program. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

The RPS adjustment does not favor local interests, as asserted, but serves to reduce the cost of complying with the RPS program. The adjustment is impartially applied to any electricity importer that meets the requirements in subsection 95852(b)(4) of the cap-and-trade regulation to deliver RPS electricity used for RPS compliance.

Z-16. Expand RPS Adjustment to Include Non-RPS-Eligible Resources
Comment: Expand the Definition of "Eligible Renewable Energy Resource" to Include Non- RPS-Eligible Energy Resources. The definition of the term

"eligible renewable energy resource," as it is used in Section 95852(b)(4), should be expanded to include sources outside of the RPS program. This not only avoids a characterization of the RPS Adjustment as discriminatory in favor of local interests, it wisely expands the pool of resources available to California for meeting its GHG reduction goals. In creating the RPS program, California had various reasons for excluding certain categories of renewable energy sources from its scope. However, those reasons are independent of the sources' carbon intensity. There are numerous valid, high-quality renewable energy sources that are not part of the RPS program but are excellent sources of emissions-free electricity for the state. To make the requisite change, Powerex suggests revising Section 95802(88) of the cap-and-trade rule to include ARB's previously proposed definition of "variable renewable resource":

"Eligible Renewable Energy Resource" has the same meaning as defined in Section 399.12 of the Public Utilities Code, as well as run-of-river hydroelectric, solar, or wind energy that requires firming and shaping to meet load requirements. "

The change would have the effect of expanding the definition — and, thus, the scope of the RPS Adjustment — to include numerous small hydroelectric facilities throughout the Western Interconnection that are not currently eligible renewable energy resources. At the same time, it avoids any circumvention of ARB's limitation on resource shuffling because the MRR already requires that renewable energy facilities be new, be repowered, or have a historic relationship with California. See MRR § 95111(g)(4). [SF 22.03b – PX]

Response: Electricity that is not directly delivered to California, defined pursuant to section 95102(a), is not included in statewide GHG emissions accounting. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

Z-17. Expand RPS Adjustment to Allow REC Retirement Outside of RPS Program
Comment: Expand the RPS Adjustment to Allow the Retirement of RECs Outside of the RPS Program. To extend the RPS Adjustment to non-RPS sources, Section 95852(b)(4) must be revised to allow entities that do not have RPS obligations to retire RECs. This can be achieved by creating an option to use an ARB REC retirement account as follows:

RPS adjustment. Electricity imported or procured by an electricity importer from an eligible renewable energy resource reported pursuant to MRR must meet the following conditions to be included in the calculation of the RPS adjustment:

(A) The electricity importer must have either:

1. Ownership or contract rights to procure the electricity generated by the eligible renewable energy resource; or

2. Have a contract to import electricity on behalf of a California entity that has ownership or contract rights to the electricity generated by the eligible renewable energy resource, as verified under MRR.

(B) The RECs associated with the electricity claimed for the RPS adjustment must be either retired into a dedicated California Air Resources Board retirement account operated by the Western Renewable Energy Generation Information System or used to comply with California RPS requirements during the same year in which the RPS adjustment is claimed.

Under the "retirement account" option proposed here, market participants would set up ARB-specific retirement accounts in the Western Renewable Energy Generation Information System ("WREGIS") that are associated with imported power. They would have to show evidence of delivery into the state in the same manner as required under the RPS program, and then retire the associated REC into a WREGIS "California ARB Retirement Account." This is exactly the same process that would be used by entities with RPS obligations, but instead of using the RECs to satisfy the RPS, the RECs would be retired into the WREGIS ARB Retirement account.

WREGIS is a robust platform that has a sufficient level of integrity to allow ARB to be certain that a renewable was shaped and delivered into the state and that the REC associated with the RPS adjustment was actually retired. Setting up a WREGIS ARB retirement account would be a simple process. WREGIS is a robust platform that has a sufficient level of integrity to allow ARB to be certain that a renewable was shaped and delivered into the state and that the REC associated with the RPS adjustment was actually retired. Setting up a WREGIS ARB retirement account would be a simple process that is already enabled in the current WREGIS configuration that could be accomplished simply by means of an ARB policy direction to users of WREGIS (i.e., electricity deliverers and their verifiers.) The RECs would be verified by through the ARB annual reporting and verification process in exactly the same way as if the REC had been retired for RPS purposes. This and the modification to the definition of "eligible renewable energy resource" are discrete and workable fixes that is already enabled in the current WREGIS configuration that could be accomplished simply by means of an ARB policy direction to users of WREGIS (i.e., electricity deliverers and their verifiers.) The RECs would be verified by through the ARB annual reporting and verification process in exactly the same way as if the REC had been retired for RPS purposes. This and the modification to the definition of "eligible renewable energy resource" are discrete and workable fixes. [SF 22.03c – PX]

Response: Electricity that is not directly delivered to California, defined pursuant to subsection 95102(a), is not included in statewide GHG emissions accounting. ARB included the RPS adjustment to covered emissions for the

specific purpose of reducing the cost of RPS compliance that would be born directly or indirectly by entities that must comply with California's RPS program. Entities that must comply with the state Renewable Portfolio Standard already have WREGIS accounts, so there is no need for ARB to set up a separate account to retire RECs.

The adjustment is impartially applied to any electricity importer that meets the requirements in subsection 95852(b)(4) of the cap-and-trade regulation to deliver RPS electricity used for RPS compliance. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

Z-18. RPS Adjustment Consistency Between MRR and Cap-and-Trade

Comment: 95111(b)(5): The RPS Adjustment terms in the Mandatory Reporting Regulation should be consistent with the cap-and-trade regulation to ensure that all eligible renewable electricity can be included in the RPS Adjustment calculation. As currently written, the definition of the MWh_{RPS} term in section 95111(b)(5) of the Mandatory Reporting Regulation limits the MWh of renewable electricity that can be included in the RPS adjustment calculation to only electricity procured by the reporting entity from a California eligible renewable resource. This is inconsistent with the RPS Adjustment language in the cap-and-trade regulation in two ways:

1) Section 95852(b)(4) of the cap-and-trade regulation states that electricity imported or procured by an electricity importer from an eligible renewable energy resource…must meet the following conditions to be included in the calculation of the RPS Adjustment. (A) The electricity importer must have either: 1. Ownership or contract rights to procure the electricity generated by the eligible renewable energy resource, or 2. A contract to import electricity on behalf of a California entity that has ownership or contract rights to the electricity generated by the renewable energy resource.

2) The definition of the RPS Adjustment and MWh_{RPS} terms in section 95111(b)(5) of the Mandatory Reporting Regulation refers to "California eligible renewable energy resource" rather than "eligible renewable energy resource" which is defined in section 95102(a) and used in section 95852(b)(4) of the cap-and-trade regulation. To ensure that the RPS Adjustment language in the Mandatory Reporting Regulation is consistent with the cap-and-trade regulation, and all eligible renewable electricity can be included in the RPS Adjustment calculation, LADWP recommends the provided modifications to the terms defined in section 95111(b)(5) of the Mandatory Reporting Regulation. [SF 11.23 – LADWP]

Response: The commenter is correct that the definition of the MWh_{RPS} term in section 95111(b)(5) of the mandatory reporting regulation limits the MWh of renewable electricity that can be included in the RPS adjustment calculation to

electricity procured by the reporting entity from an eligible renewable resource, consistent with section 95852(b)(4)(A)(1) of the cap-and-trade regulation. Consistent with existing practice, ARB will continue to work with stakeholders to ensure successful program implementation, including, if necessary, by providing guidance to reporting entities and verifiers that RPS adjustments that demonstrate the condition in section 95852(b)(4)(A)(2) of the cap-and-trade regulation has been met also will be considered in conformance with this provision in MRR.

Use of the term "California eligible renewable resource" is consistent with the definition in section 95102(a) of the MRR and section 95802(a) of the cap-and-trade regulation, as it refers to those "eligible renewable resources" recognized for purposes of compliance with the California RPS program. The definition states, "'Eligible Renewable Energy Resource' has the same meaning as defined in Section 399.12 of the Public Utilities Code."

Z-19. RPS Adjustment and Procured Electricity

Comment: The calculation of the RPS adjustment in section 95111(b)(5) should be retained but modified. Section 95111(b)(5) includes more information on the calculation of the RPS adjustment than is included in section 95852(b)(1)(B) of the Cap and Trade Regulation. The formula for the RPS adjustment and the definitions of the terms used in the formula should be retained, but corrected to remove certain errors.

First, the definition of MWh_{RPS} in section 95111(b)(5) (p. 116) uses the term "California eligible renewable resource." This term is not correct. Previous versions of the Regulation used and defined the term "California eligible renewable resource" but this definition has been deleted. The newly defined term in the Proposed Changes to the Regulation is "eligible renewable energy resource" (§ 95102(a)(124), p. 28). This term should be used throughout the Regulation. Referring to "California" resources is particularly confusing in the context of section 95111(b)(5), which addresses imported electricity.

Second, the definition of MWh_{RPS} should be revised to correctly reflect the changes to section 95852(b)(4)(A)(2) of the Cap and Trade Regulation (p. 92). The definition of MWh_{RPS} in the Regulation currently refers only to energy that is "procured" by the reporting entity. However, the RPS adjustment will be utilized by the entity that is importing firm energy in place of the renewable energy that could not be imported as a direct delivery. The entity that is importing firm energy may be the same as the entity that procured the renewable energy, or it may be a separate entity that is importing the firm energy on behalf of the entity that procured the renewable energy. Section 95852(b)(4)(A)(2) (p. 92) of the Cap and Trade Regulation was amended to recognize this type of arrangement by adding the words "or have a contract to import electricity on behalf of a California entity that has ownership or contract rights to the electricity generated by the eligible renewable energy resource, as

verified under MRR." This type of arrangement should be reflected in the definition of MWh_{RPS} in section 95111(b)(5) of the Regulation.

Lastly, section 95111(b)(5) defines "AF" as "EFunsp", but does not define "EFunsp". The term "EFunsp" should be used directly in the formula and should be defined consistently with the other definitions of this term in section 95111.

To address these issues, the RPS adjustment in section 95111(b)(5) should be revised as follows:

MWhRPS = Sum of MWh generated by each California eligible renewable energy resource located outside of the state of California, procured by the reporting entity or imported on behalf of a California entity that has ownership or contract rights to the electricity generated by the eligible renewable energy resource, registered with ARB pursuant to section 95111(g)(1), and meeting requirements pursuant to section 95852(b)(4) of the cap-and-trade regulation.

AF = EFunsp = Default emissions factor for unspecified sources calculated consistent with section 95111(b)(1) (MT CO_2e/MWh) [SF 21.05 – SCPPA]

Response: To address use of the term "California eligible renewable resource," see Response to Z-18 regarding RPS adjustment and consistency with the cap-and-trade regulation.

To address consistency with section 95852(b)(4)(A)(2) of the cap-and-trade regulation, see Response to Z-18 regarding RPS adjustment and consistency with the cap-and-trade regulation.

Finally, ARB believes the reference to EF_{unsp} does not need to be redefined in each subsection of section 95111. As such, ARB has declined to make the requested changes.

Z-20. RPS Adjustment and Substitute Electricity Definition

Comment: Definition #373: Substitute Power/Electricity & Section 95852(b)(4). We note that the latest draft has deleted the term "Replacement Electricity" and instead introduces the term "Substitute Power/Electricity", and significantly modifies the approach to assigning an emissions factor to imports associated with RPS-eligible purchases. MSCG believes that the new approach is workable, and is largely congruent with the goal of facilitating "firming and shaping" in support of state RPS goals.

One new concern arises from the new structure. As drafted, eligibility to claim power as "substitute" and be utilized in the "RPS adjustment" portion of the imported electricity emissions responsibility formula, requires that the associated REC be used for compliance in the same year. Logically, it seems to us that what should matter is that the renewable power be generated, and

the associated REC created, and an equivalent amount of power imported into California, in the same Calendar year. Because the RPS regulations allow some banking of RECs, requiring submission for compliance in the same year does not seem to be aligned with the RPS program, nor does it seem necessary to ensure the environmental integrity of the emissions rate granted to the substitute power. Furthermore, when the importing entity is different from the complying entity, the importing entity will have no way to know or demonstrate whether or not the REC was used for compliance in the same year. Therefore, MSCG advocates that the requirement for same year submission for compliance be adjusted slightly to require same-year generation from the underlying, associated resource, and an equivalent amount of imports, in the same Calendar year. [SF 10.02 – MSCG]

Response: The final MRR amendments require annual source-based GHG emissions accounting for all electricity, specified and unspecified, that is directly delivered to California, as defined pursuant to subsection 95102(a). Two adjustments are provided on an impartial basis to reduce the compliance obligation of electricity importers: the RPS adjustment and the qualified exports adjustment. The RPS adjustment applies to electricity that is not directly delivered to California, and therefore is not included in statewide GHG emissions accounting. The RPS adjustment is not a recognition of avoided emissions, but an adjustment to the compliance obligation to recognize the cost to comply with the RPS program. See Response to D-7 regarding reporting specified imports and RPS adjustment to covered emissions.

The term “substitute electricity” is only applicable to a power contract with a specified source, where electricity from the specified source is directly delivered. “Substitute power” or “substitute electricity” means electricity that is provided to meet the terms of a power purchase contract with a specified facility or unit when that facility or unit is not generating electricity. The following requirement was clarified in section 95111(a)(2): “Substitute electricity defined pursuant to section 95102(a) must be separately reported for each specified source, as applicable.” The term is not applicable to the RPS adjustment, which applies only to RPS electricity that is not directly delivered.

ARB understands that the RPS regulations have a three-year compliance period, but ARB must proceed within the limits of an annual GHG reporting and verification program. REC retirement is a policy decision to assure that recognition allowed pursuant to the cap-and-trade regulation is not double-counted.

ARB expects that, in cases where the electricity importer claiming an RPS adjustment is not the entity regulated pursuant to the RPS program, the importer will work together with the RPS-regulated entity to provide sufficient documentation for verification.

Z-21. Electric Cooperative Exclusion in "Retail Provider" Definition

Comment: Subsection 95102 (a)(351) "Retail Provider": ARB's definition of the term "retail provider" specifically excludes electrical cooperatives. SCE sees no rationale for this exclusion. In SCE's comments on the original proposed 15-day modifications, SCE recommended that electric cooperatives be included in the definition of "retail provider." As this change was not made in the September 2011 Proposed Modifications, SCE again recommends it. [SF 26.02—SCE]

Response: ARB decided that electric cooperatives will remain excluded from the definition of "retail provider" in MRR and in the cap-and-trade regulation because they are cooperatively owned and the service areas account for a very small quantity of electricity consumption in California.

Z-22. Additional Requirements for Retail Providers, Excluding Multi-jurisdictional Retail Providers, Subsection 95111(c)(4)

Comment: Section 95111(c)(4): This section provides that "[r]etail providers that report as electricity importers also must separately report electricity imported from specified and unspecified sources by other electric power entities to serve their load, designating the electricity importer." In SCE's comments on the original proposed 15-day modifications, SCE had recommended that ARB should remove this requirement in its entirety, for a variety of reasons explained in SCE's comments. SCE continues to believe that ARB needs to figure out a way to obtain information about all imported electricity transactions, including imported electricity sold directly into CAISO markets, from electricity importers, and not rely on retail providers to report such imported electricity transactions. At best, ARB will receive an incomplete picture if it relies on retail providers for such reporting, even if retail providers figure out a way to obtain and report such data. [SF 26.04—SCE]

Response: See Response to D-22 regarding additional requirements for retail providers, excluding multi-jurisdictional retail providers, concerning section 95111(c)(4).

Z-23. Enforcement, Electricity Importers

Comment: There is no clear process for verifying that all importers of electricity have reported. As a result, electric power entities could avoid obligations under the cap and trade program by simply not reporting. WPTF has previously provided detailed comments on this topic and therefore will not repeat these comments here. [SF 16.05 – WPTF]

Response: ARB will use a variety of data sources to monitor complete reporting. In addition, the MRR requires demonstration of nonapplicability pursuant to section 95101(g), includes conditions for cessation of reporting in section 95101(h)(4), and contains strong enforcement provisions in section 95107.

AA. Subarticle 2. Industrial Facilities, Stationary Fuel Combustion, Fuel Suppliers, Carbon Dioxide Suppliers (§95110, §95112 to 95123)

AA-1. Calculation Methodology for Natural Gas

Comment: Section 95115. Fuel Combustion Sources. Natural gas is not included in the listing of default CO_2 emission factors and high heat values in Table 2: Petroleum Fuels For Which Tier 1 or Tier 2 Calculation Methodologies may be Used Under Section 95115(c)(1). Table 1 appears to limit the fuels for which the Tier 1 methodology can be used for CO_2 emission estimates and does not include CH_4 and N_2O emission estimates. On the other hand, the U.S. EPA has chosen to include these fuels (e.g., natural gas) in Table C-2, 40 CFR 98 Subpart C when determining default high heat values and default CO_2 emission factors. Likewise, the EPA has determined that CH_4 and N_2O emissions can be estimated using the Tier 1 methodology, but allows that CO_2 must be estimated using a higher-tier methodology. The different reporting methodologies cited above will unnecessarily complicate the calculation of these values when reporting to the agencies. Modify: Replace Section 95115 Table 1 with Table C-1, 40CFR 98 Subpart C (as shown in the comment letter). [SF 25.05 – SEU]

Response: Except where otherwise specified, the MRR incorporates U.S. EPA Subpart C requirements as of December 17, 2010. Use of Tier 1 methods for CH_4 and N_2O is permitted under these requirements. Section 95115(c)(2) of the regulation also allows for use of Tier 1 methods for natural gas where the supplier provides pipeline quality natural gas measured in therms, and this is also consistent with changes approved by U.S. EPA on December 17, 2010. No change in the regulation is required at this time.

AA-2. Biomass CO_2 Calculation Method

Comment: Section 95115(e)(3) Procedures for Biomass CO_2 Determination states that reporting entities must use the procedures proscribed in this section when calculating emissions from biomass-derived fuels that are mixed with fossil fuels prior to measurements. As previously discussed this section also has a procedure for calculating emissions from a biomethane and natural gas mixture, but fails to include biogas. Yet the "total biomethane deliveries" required for calculating the emissions of biomethane are subject to the values and the same verification requirements as biogas in Section 95131(i)(2)(D) ("For biomethane and biogas, the verifier must: 1. Examine all nomination, invoice, scheduling, allocation, transportation, storage, in-kind fuel purchase and balancing reports…"). Modify: Section 95115(e)(3). When calculating emissions from a biogas or biomethane and natural gas mixture as described in 40 CFR 98.33(a)(2) using the annual MMBtu of fuel combusted in place of the product of Fuel and HHV in Equation C-2aa Tier 2 method, the operator must calculate emissions based on verifiable contractual deliveries of biogas or biomethane subject to the requirements of 95131(i), using the natural gas

emission factor in the following equations… And modify all other calculations in this section. [SF 25.06 – SEU]

Response: Since biogas and natural gas mixtures are covered in section 95115(e)(5), no change is needed at this time.

AA-3. Biomass-Derived Fuel Mixtures

Comment: USEPA explicitly exempts the GHG emissions from co-fired fossil fuel and biomass combustion from biomass fuels not listed in their Table C-1 and in units less than 250 mmBtu/hr per 40 CFR 98.33(c) and (e). As such, CARB should include a similar exemption for GHG emissions from co-fired biomass combustion under sections 95101(b), 95103(j), and (5115(e). [SF 24.02 – CCCSD]

Response: ARB has declined to make this change because the 250 mmBtu/hour threshold is too large, potentially resulting in emissions well over 25,000 metric tons depending on fuel type. Even biomass sources this large are substantial sources of emissions that are tracked, reported and verified under other requirements of the regulation.

AA-4. Shift Point of Regulation of Transportation Fuel Suppliers

Comment: ARB should amend the Mandatory Reporting Rule to shift the point of regulation for California rail yards that receive diesel fuel by pipeline to the first point of supply. In order to remedy the significant regulatory burden placed on the Railroads, the only end-user of transportation fuel with a reporting requirement under the MRR, the Railroads request that ARB amend the Mandatory Reporting Rule to shift the point of regulation for California rail yards that receive diesel fuel by pipeline to the first point of supply. Fuel suppliers are already required to report transportation fuel data to ARB under other AB 32 regulations and could easily comply with such a requirement under the MRR. Furthermore, research performed by the Railroads and provided to ARB staff indicates that, in all instances, the suppliers of diesel fuel to railroad fueling facilities by pipeline already possess data on the number of gallons sold to the Railroads, and would need no additional information to comply with the MRR. [SF 20.02 – CRI]

Response: The point of regulation was selected by ARB after numerous consultations with stakeholders as the place that will provide the most accuracy with the least additional burden on reporters. Fuels data is already collected by the BOE for position holders and enterers. The railroads are in some instances terminal operators and position holders and would be required to report under this section. This does not create a competitive disadvantage because, while the railroads will directly pay any compliance cost, truckers will also pay the same compliance cost passed along by their fuel supplier. The first point of supply, which ARB believes would be the fuel producer in all cases, will not work as a point of regulation because the final disposition of the fuel is not

always known, so out-of-state emissions could potentially be captured. Additionally, it was difficult to account for transmix (fuel mixtures) that are not combusted, and metering accuracy was problematic at refineries. ARB does not believe a change is required at this time.

AA-5. Transfer of Compliance Obligation

Comment: ARB should amend the Mandatory Reporting Rule to allow agreements between position holders in transportation fuels and fuel suppliers that would shift the reporting obligation to the fuel supplier. This proposal follows the structure established in ARB's Low Carbon Fuel Standard that allows for the transfer of regulated party status (see LCFS §95484(a)). Under this option, a position holder and its fuel supplier could mutually agree to shift the reporting obligation of the MRR to the fuel supplier. Such an arrangement would allow the position holder and fuel supplier to enter into the most economical arrangement in order to comply with the regulation. Given the complexity of the current and projected regulatory arena for transportation fuel, it only makes sense to allow the parties to mutually agree on how to best comply with the MRR. [SF 20.03 – CRI]

Response: ARB must specify in the regulation the responsible party for reporting emissions, rather than leave it up to multiple potentially responsible parties to decide who reports. No change is required at this time.

AA-6. Meter Accuracy for Invoiced Fuel Volumes

Comment: Calibration Requirements. Section 95121(c) requires certain operators to meet certain monitoring and QA/QC requirements. As written, it is unclear whether position holders who must calculate emissions based on either the delivering entity's invoiced fuel volume or on a financial transaction meter (per §95121(b)(1)) are exempt from the monitoring and calibration requirements of §95121(c). Since position holders who must calculate emissions based on either the delivering entity's invoiced fuel volume or on a financial transaction meter do not utilize the meters at their fueling racks, it is not reasonable to require these meters to be monitored and calibrated under the MRR. Furthermore, discussions with ARB staff revealed that §95121(c) was not intended to apply to position holders who must calculate emissions based on the delivering entity's invoiced volume for fuel or a financial transaction meter. The Railroads therefore request that ARB clarify that the requirements of §95121(c) will not apply to the Railroads. [SF 20.04 – CRI]

Response: All position holders including railroads are subject to the requirements of 95121(c). Position holders, including railroads, that report based on either the delivering entity's invoiced fuel volume or on a financial transaction meter are using financial transaction meters so the measurement accuracy requirements of sections 95103(k) and 95121(c) are satisfied, assuming no common ownership of the meters as specified in section 95103(k)(7) and 95121(c). No change is required.

AA-7. Transportation Fuel Emission Factors

Comment: WSPA points out that there are inconsistencies between the current EFs for CH_4 and N_2O from transportation fuel combustion and those used in the GREET model and the EPA MRR. [SF 09.12 - WSPA]

Response: These emission factors were calculated based on the latest available data from the U.S. EPA and ARB. CO_2Consistent with existing practice, ARB will consider new data going forward and may consider regulatory amendments in the future depending on the then-state of data. However, the emission factors' impact on CO_2e emissions is very small and therefore, ARB does not believe any changes are required at present.

BB. Subarticle 3. Substitution for Missing Data (§95129)

No comments were submitted on section 95129.

CC. Subarticle 4. Verification and Verifier Requirements (§95130 – §95133)

CC-1. Streamlined Verification of Biomass-derived Fuels

Comment: In its original December 2010 comments, LADWP pointed out that the upstream verification requirements for biomass-derived fuels would have resulted in substantial and duplicative verification efforts and needed to be streamlined. LADWP appreciates ARB staff's willingness to work with stakeholders to resolve the issues and streamline the verification requirements for biomass-derived fuels. The revised verification requirements are a significant improvement. [SF 11.01 – LADWP]

Response: ARB appreciate the commenter's participation in this important public process.

CC-2. Material Misstatement

Comment: WSPA recommends that similar to reported emission sources, a material misstatement be based on the total product data, rather than on a single product data component. [SF 09.13 - WSPA]

Response: As explained in Response to Y-27, ARB believes it is necessary to base a material misstatement on each individual product data component, because not all product data is additive when calculating free allocations. As such, ARB declines to make the requested change.

CC-3. Material Misstatement

Comment: WSPA suggest that in the calculation of percent error of reported emissions "omissions" should not include missing data that has been replaced following appropriate missing data provisions. [SF 09.14 - WSPA]

Response: Omissions does not include missing data when missing data is replaced according to the provisions of the regulation. Additionally, missing data must be included in the emissions data report. If missing data is subsequently omitted from the emissions data report, it would be consider an omission.

CC-4. Missing Data Substitution

Comment: Review of missing data substitution (95131(b)(13)(D)): CSCME would like to point out that the language in 95131(b)(13)(D) will result in a non-conformance at cement plants whenever the CEMS availability falls below 95% (because the CEMS data corresponds to 99% or more of the facility direct emissions), regardless of whether the 40CFR75 missing data procedures are being followed for the CEMS, implying that a non-conformance could end up being a common occurrence and also implying that there is little benefit to following 40CFR75 missing data procedures. CSCME proposes that the language be changed from 5% to 20% in case of following 40CFR75 missing data procedures, by adding the following language to the end of this section: “except in cases where CEMS are used for the single data element and 40CFR75 missing data procedures for CEMS are being correctly applied, where the verifier will note a non-conformance only if more than 20% of the unit’s emissions are being calculated using missing data requirements.” [SF 05.02 – CSCME]

Response: ARB believes that, for purposes of ensuring accurate data is reported, it is important to know whenever a significant portion of a facility’s emissions (5%) are replaced using missing data substitution methodologies. As such, ARB declines to make the requested change.

CC-5. Review of Data Substitution

Comment: Review of product data (95131(b)(14)): Please add the following sentence to the end of this section: “The use of inventory/stock measurements in calculations for product data will not be considered a data substitution.” [SF 05.03 – CSCME]

Response: Data substitution for the stock method used for product data is consistent with all other product data reporting. Data substitution for the stock measurement method would include missing imports or exports records, which could not be replaced. Missing beginning or end measurements could not be replaced either, resulting in a nonconformance and a material misstatement if the missing data exceeds 5%. In order to ensure the accuracy of the data used

in the allocation component of the cap-and-trade program, the regulation does not allow for data substitution for product data.

CC-6. Verification of Biomass-derived Fuels

Comment: Section 95131(i)(2)(d)(1). ARB Should Simplify Verification Of Biomethane And Biogas. The verification process remains more complex than it needs to be. The first part of the verification process requires the verifier to examine all nomination, invoice, scheduling, allocation, transportation, storage, in-kind fuel purchase and balancing reports to determine that the reporting entity is receiving the identified fuel. For biomethane produced outside California, this is an overly cumbersome process. A simpler approach would be to focus on the biomethane supply contract and confirm that the gas was delivered into a pipeline system. The verifier could use the contract or invoice for the biomethane supply and verify with the producer that the supply was delivered into a pipeline system. The provided revisions to section 95131(i)(2)(d)(1) would require the verifier to verify that the supplier of the gas produced the gas and that it was delivered into a gas transportation system. [SF 14.05 – PGE]

Response: The verification of biomethane and biogas has been significantly simplified from the original 45-day version requirements. ARB feels that the level of verification currently required is necessary for reaching reasonable assurance that biomethane and biogas is truly being consumed and is required for the integrity of the cap-and-trade program.

CC-7. Professional Liability Insurance

Comment: We appreciate this opportunity to submit our comments regarding one provision of the proposed amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. The proposed modification to 95132(b)(1)(C) will require verification bodies to have four million dollars of professional liability insurance instead of one million dollars of liability insurance, and to maintain this level of insurance for three years after completing any verification services. This requirement applies to verifiers of emission data reports or offset project data reports, without distinction. There is no logical reason why such a high liability should be associated with the verification of emissions data reports. The liability for any required offsets always remains with the facilities and not with the verification body. Furthermore, the requirement for verifiers to maintain such a high level of liability insurance may give the impression that such liability can or should be shifted to verifiers. Emissions data report verifications tend to be relatively small jobs, most less than $8000. It does not make sense for a verification body to shoulder so much liability for such a job. The Initial Statement of Reasons does not provide a very specific or substantial justification for the proposed change and its additional costs to reporters and verification bodies. We ask that you reconsider the potential costs - the loss of skilled verifiers who may exit the market and higher verification costs to reporters - weighed against the lack of

clear benefit to any party. We respectfully take the position that the current liability insurance requirements are more than adequate to protect reporters, especially with respect to verification of emissions data reports, and request that no change be made to the current wording of 95132(b)(1)(C). [SF 08.01 – ALG]

Response: As explained in the rationale for this modification in the Staff Report (p. 230), the liability insurances provisions are necessary because the cap-and-trade program will monetize emissions. Moreover, this new level of insurance is comparable to the level of insurance required for verification bodies in voluntary programs. The insurance has to be maintained long enough to cover one compliance period amount under the reporting program. It is especially important for verification bodies to carry enough liability insurance for a sufficient period of time after verification in order to provide recourse to a client for any errors in their work.

DD. Subarticle 5. Requirements and Calculation Methods for Petroleum and Natural Gas Systems (§95150 – §95157)

DD-1. Produced Water CO_2 and CH_4

Comment: Section 95153(v) requires operators to calculate dissolved CO_2 and CH_4 in produced water that is sent to storage tanks or ponds and holding facilities. ARB proposed two specific methods for determining CO_2 and CH_4 emissions: (v)(1), A flash liberation test or; (v)(2), A vapor recovery system method. Although WSPA appreciates ARB's efforts to provide alternative methods for quantifying GHG emissions, and recognizes the vapor recovery system method is one way to obtain applicable data for produced water, WSPA believes further technical guidance must be developed to ensure CO_2 and CH_4 concentrations are accurately quantified and applied appropriately through the oil and water process chain. This would include considering the concentrations of CO_2 and CH_4 associated with initial produced fluids (oil and water), the oil and water separation process itself, and in the final produced water storage tanks and/or other holding facilities; i.e., ponds. In other words, Sections (v)(1) and (2) as written, fail to take into account the variation of CO_2 and CH_4 concentrations in produced water, and would incorrectly apply conservative concentration values to produced water tanks or other devices, resulting in over estimations of CO_2 and/or CH_4 emissions. WSPA is currently working closely with ARB's Stationary Source Division (SSD) on development of a technically accurate and defensible method for quantifying CO_2 and CH_4 emissions associated with produced water. In advance of this work with SSD, it seems appropriate for ARB to delete this requirement at this time and revisit the issue in early 2012, at which time an agreed upon method for quantifying GHG emissions associated with produced water is expected to be available [SF 09.15 - WSPA]

Response: ARB recognizes that additional technical work is underway on calculating CO_2 and CH_4 from produced water, but believes it is important to collect emissions information for this source using the prescribed methods until such work is completed and the regulation is revised. In simultaneous 15-day changes, the cap-and-trade regulation was amended to exclude these sources from a compliance obligation for the near term, pending this additional work. Though the MRR calculation methods may be conservative for some cases, this will not result in unfair treatment for these facilities due to the current exclusion of this source from the cap-and-trade regulation. No change is needed at this time. See also Response toK-2.

DD-2. Dehydrator Vent Stack Equation Term

Comment: Section 95153(d). The equation should have 100 in the denominator (to convert %G to a mole fraction). Modify: 95153(d)(1) for dehydrators that use desiccant… (as shown in the comment letter). [SF 25.07 – SEU]

Response: ARB agrees with the commenter that the variable %G (percent of packed vessel volume that is gas) must be expressed in decimal form, and has modified the section accordingly. This modification is nonsubstantial in nature, as it does not alter the reporting requirements and is consistent with other variables' metrics for the equation. This modification has been noted in the "Non-Substantive Corrections to the Regulations" of section II of this FSOR.

DD-3. U.S. EPA Subpart W Revisions

Comment: Section 95153(t). Equation should be changed to correspond to most recent Subpart W proposed revisions. Modify: 95153(t) GHG Mass Emissions. The operator must calculate GHG mass emissions using the following equation: (as shown in the comment letter) [SF 25.08 – SEU]

Response: ARB is not incorporating this or other proposed U.S. EPA revisions at this time. Proposed changes to the federal rule may be changed before they are finalized. In addition, ARB believes it important to review all final U.S. EPA changes for implications on ARB control programs, particularly cap-and-trade, if incorporated into our own requirements. After U.S. EPA takes final action and this review is completed, ARB will look for an opportunity to incorporate appropriate changes in a subsequent regulatory action. ARB remains committed to working with stakeholders to ensure to the degree possible, and where appropriate, that California GHG reporting requirements are harmonized with finalized U.S. EPA reporting requirements.

DD-4. Centrifugal Compressor Methods

Comment: Section 95153(m). GHG emissions from centrifugal compressors can and do vary significantly depending on the type of seals and the size of the compressor. Ninety percent of all new compressors now have dry gas seal systems and dry seals tend to be the technology of choice for new

compressors. Given this potential for very low emissions SoCalGas and SDG&E recommend that alternative emission estimation methodologies for centrifugal compressors less than 250 hp should be developed to ensure accuracy in reporting. Further discussion of this issue can be found in the referenced document. Delete: 95153(m)(2) "The operator must calculate CO_2, CH_4, and N_2O (when flared) emissions for all centrifugal compressors with rated horsepower less than 250 hp using the methodologies found in 40 CFR 98.233(o)(7). [SF 25.09 – SEU]

Response: The ARB MRR is consistent with the current U.S. EPA reporting requirements for centrifugal compressors less than 250hp. The current reporting method for these compressors [§98.233(o)(7)] requires reporters to use a default emissions factor. Moreover, these emissions are not associated with a compliance obligation under section 95852.2 of the cap-and-trade regulation. As such, ARB does not believe the requested change is necessary.

DD-5. Oil and Gas Facility Definition

Comment: In the case of onshore petroleum and natural gas production, the reporting footprint is defined as the geological basin. Reporters would be required to determine and report emissions from stationary combustion, and specified process and vented emissions. The reporting entity may be either a facility or operator. But in all of the effort to harmonize, there is still confusion relative to current and ongoing reporting framework for local air districts. Oil and gas operators in California with multiple locations conceivably could be required to comply with air district, CARB, WCI and federal reporting requirements which will be confusing and costly especially given the enforcement penalties at CARB's disposal for such things as "inaccurate information". CIPA supports the traditional air district facility definition. The basin definition is not only confusing, but the practical effect will be to bring smaller operators in to the mix who really weren't intended to be included in the large emitters category targeted for reporting, at likely prohibitive cost. [SF C&T 67 – CIPA]

Response: See Response to DD-4.

EE. Other Second 15-Day Comments Received.

EE-1. Support for Changes and Process

Comment: Morgan Stanley Capital Group, Inc. (MSCG) strongly supports the use of a cap-and trade program as the best way to achieve reductions of greenhouse gas emissions in California. At an overarching level, we believe the Mandatory Reporting Rule (MRR) is largely on target as a workable framework for gathering the data necessary to implement the cap-and–trade program. In the latest revision (the Proposed 15-day modifications), we have noted adoption of several of our past suggestions for improvement, and appreciate

the Air Resources Board's responsiveness to stakeholder input. [SF 10.01 – MSCG]

Response: ARB appreciates the comment.

EE-2. Future Amendments

Comment: As we approach the deadline for submitting the rule to the Office of Administrative Law, we would like to emphasize the need for further rule changes and updates next year. This rule is extremely complex and it will have a large impact on the California economy. In that regard, Cal chamber requests that CARB includes in the Final Statement of Reasons (FSOR) a schedule by which workshops and needed revisions will occur so public can schedule and provide feedback and for the staff to hear and incorporate reasonable changes to the rule [SF 17.01 – CCC]

Response: Please see Response to Y-6.

EE-3. Cost Analysis

Comment: Monitoring and Reporting Requirements above Federal EPA MRR Program. While CalChamber understood CARB's stated reasons for adopting a more stringent reporting program, we were very concerned with the lack of a thorough and transparent cumulative and individual cost analysis of impacts of the requirements that exceeds the Federal MRR program. In addition to such cost impact analysis, there should be an analysis of the difference in overall emission estimates based on the Federal EPA MRR reporting program. CalChamber therefore, respectfully respected that CARB conducts an analysis comparing the more stringent MRR requirements to the Federal EPA MRR program, with consideration of all costs and showing the difference in emission estimates. [SF 17.01 – CCC]

Response: The Staff Report included a detailed cost analysis that considered the cost of complying with requirements that exceed both existing California and new federal requirements. It is premature to compare emissions estimated under the revised state program and the federal program, since data have not yet been collected under either program. Regardless of the difference in emissions collected, however, because California's regulation will be supporting control strategies that include market trading, emissions estimates must have the additional credibility that ARB's additional requirements provide.

EE-4. Support for Process

Comment: We want to thank the California Air Resources Board (ARB) for the opportunity to comment on the Second Notice of Public Availability of Modified Text (2nd 15-Day Change Notice) for the Mandatory Reporting.of Greenhouse Gas Emissions Regulation (the MRR). Furthermore, we want to thank ARB staff for their attention to our issues. The Railroads have worked closely with ARB

staff to identify and correct technical issues, and we thank staff for their attention. [SF 20.01 – CRI]

Response: ARB appreciates the comment.

EE-5. Support for Changes
Comment: The Proposed Changes make significant improvements to the Regulation. SCPPA greatly appreciates the way in which ARB staff addressed many of the issues raised by SCPPA in previous comments to the ARB. [SF 21.01 – SCPPA]

Response: ARB appreciates the comment.

EE-6. Support for Regulation and Changes
Comment: Powerex applauds ARB's efforts to create and implement a comprehensive greenhouse gas ("GHG") emission reporting program and a cap-and-trade program. Both serve to fulfill the mandate of the California Global Warming Solutions Act ("AB 32") to reduce GHG emissions in California and to combat global climate change. With the latest sets of changes to the MRR and the cap-and-trade rule, ARB has made significant progress toward achieving the goals of AB 32. Powerex greatly appreciates the efforts made by ARB to respond to its August 11, 2011 comments on ARB's first set of proposed 15-day Modifications to the MRR and cap-and-trade rule. [SF 22.01 – PX]

Response: ARB appreciates the comment.

EE-7. Future Regulatory Processes
Comment: WIRA submits these comments knowing that the deadline for regulatory adoption is pending, and therefore any additional changes to the Mandatory Reporting Regulation will need to be addressed in a subsequent rulemaking. The comments presented below are provided in that spirit. The focus of these comments is on the Carbon Dioxide Weighted Tonne Calculation (CWT). Though discussed in general terms under the Cap and Trade Program, the specific methodology and CWT calculation details for the second compliance period allowance allocation in the refining sector were not placed in proposed regulatory language prior to this second 15-day packet, from which changes to the regulation cannot be accommodated prior to its finalization. It is imperative that when this additional technical work is completed that it be done in a public and timely manner such that all parties have sufficient understanding and time to comment appropriately. It is also important that the Cap and Trade Regulation and the MRR remain consistent between themselves. Therefore, WIRA recommends that when such additional technical work is initiated for the Cap and Trade Program, the associated portions within the MRR also be reviewed and open for revision. WIRA will actively participate in the process when it is started. Even though the CWT approach will not be in effect until 2015, for planning purposes, it is imperative that this work commence early in

2012. WIRA recognizes and appreciates the difficulty and obstacles that arose during this adoption process that CARB staff had to overcome, but in adopting such a complex and important regulation, public process is key. We have already noted that any additional changes to the MRR based on this open comment period cannot occur during this specific rulemaking. WIRA urges CARB to not only respond to these comments now, but also use them as the basis and starting point for the inevitable first round of regulatory adjustments to the program. [SF 07.01 – WIRA]

Response: The commenter is correct about the addition of the CWT calculation, which was added for consistency with the cap-and-trade regulation. ARB agrees it is likely the amended regulation will be re-visited after implementation begins. ARB will be sure to include the commenter in the development of any future amendments.

EE-8. Support for Process

Comment: We thank the Air Resources Board (ARB) Staff for their interest and consideration of stakeholder input and the changes to the proposed amendments as reflected in the Second 15-day Modifications. SoCalGas and SDG&E appreciate Staff's outreach efforts in developing these proposed modifications and we hope to further the development of the MRR with these comments on the Second 15-day changes. As mentioned above, Staff's consideration of stakeholder input has been productive, enhancing understanding and facilitating technical aspects for reporting under a cap and trade program. Many elements of the California Mandatory Reporting Program are now more closely aligned with the EPA program. Several comments below discuss other opportunities for consistency between the two similar regulations. [SF 25.01 – SEU]

Response: ARB appreciates the comment.