

## **UPDATED INFORMATION DIGEST REGULATION TO IMPLEMENT THE CALIFORNIA CAP-AND-TRADE PROGRAM**

**Sections Affected:** This action amends sections 95802, 95811, 95812, 95813, 95814, 95830, 95831, 95832, 95833, 95834, 95841.1, 95851, 95852, 95852.1.1, 95852.2, , 95853, 95856, 95857, 95870, 95890, 95891, 95892, 95893, 95910, 95911, 95912, 95913, 95914, 95920, 95921, 95922, 95942, 95970, 95971, 95972, 95973, 95974, 95975, 95976, 95977, 95977.1, 95978, 95979, 95980, 95980.1, 95981, 95981.1, 95982, 95983, 95984, 95985, 95986, 95987, 95990, and 96022, title 17, California Code of Regulations. This action adopts new sections 95894, 95895, 95923, 95979.1, new Appendix B, and new Appendix C, title 17, California Code of Regulations, and adopts the incorporated California Air Resources Board Compliance Offset Protocol Mine Methane Capture Projects: Capturing and Destroying Methane From U.S. Coal and Trona Mines (2013).

**Background:** The California Global Warming Solutions Act of 2006 (Assembly Bill 32; Stats. 2006, Chapter 488) (AB 32) authorizes the California Air Resources Board (ARB) to implement a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. Meeting the goals of AB 32 requires a coordinated set of strategies to reduce GHG emissions throughout the economy that work within a comprehensive tracking, reporting, verification and enforcement framework.

In October, 2011, the Air Resources Board adopted, and the Office of Administrative Law (OAL) subsequently approved, the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (California Cap-and-Trade Regulation). In 2012, ARB proposed two sets of amendments to the Cap-and-Trade Regulation. The first set of amendments, related to program implementation, was approved by the Board in June 2012. These amendments took effect in September 2012. The second set of amendments, related to jurisdictional linkage with Québec, was approved by the Board in April 2013. These amendments too effect in October 2013 and specify a January 1, 2014 start date for the linked California and Québec Cap-and-Trade Programs.

These amendments to the California Cap-and-Trade Regulation provide additional clarity in implementation, address stakeholder concerns on cost containment, extend the transition assistance for covered entities in the program, add a new compliance offset protocol, and enhance ARB's ability to oversee and implement the regulation.

### **Description of the Regulatory Action:**

ARB staff is proposing amendments to the California Cap-and-Trade Regulation in response to continued Board direction and further discussions with stakeholders. The proposed amendments would: provide allowance allocation for additional sectors and modify allocation for existing sectors based on new information; implement additional cost containment mechanisms; define new covered entities and exempt sectors where direct regulation best meets the goals of AB 32; exempt certain covered entities'

emissions from incurring a compliance obligation under the program; provide additional clarity on the prohibition against resource shuffling in the electricity sector; provide better coordination of the regulation with other state renewable electricity requirements; include a new offset protocol and clarify and add processes for implementation of the compliance offset program; provide modifications to market rules for auctions and transfers in the tracking system; and include additional provisions to enhance market security.

Since the Notice of Proposed Rulemaking was published on September 6, 2013, ARB staff proposed additional modifications to the regulation pursuant to Board direction provided in Attachment A to Resolution 13-44.<sup>1</sup> ARB published the Mine Methane Capture economic analysis and adopted additional changes to the Cap-and-Trade Regulation pursuant to the Board direction. These additional documents were added to the record via a 15-day comment period, pursuant to Government Code section 11347.1.

## **Summary of Proposed Modifications in the 15-Day Notice**

### **A. Modifications to Section 95802. Definitions.**

The following definitions were added because they are new terms in the regulation and were developed with stakeholder input:

Aseptic Preparation, Barrel of Gas Processed Equivalent, Bathroom Tissue, Buttermilk powder, Calcined coke, Condensed milk, Contract Description Code, Dairy product solids for animal feed, Delicate task wiper, Distilled spirit, Dry color concentrate, Expected Settlement Date, Expected Termination Date, Facial Tissue, Grape seed extract, Imported protein, Intermediate dairy ingredients, Legacy Contract Counterparty, Legacy Contract Generator with an Industrial Counterparty, Legacy Contract Generator with a Non-Industrial Counterparty, Nonfat dry milk and skimmed milk powder (low heat, medium heat, high heat), Non-Aseptic tomato juice, Non-Aseptic tomato paste, Non-Aseptic tomato puree, Non-Aseptic whole and diced tomato, On-purpose hydrogen gas, Paper Towel, Powdered milk (low heat, medium heat, high heat), Proof Gallons, Renewable Diesel, Stucco, Tomato Juice, Tomato Paste, Tomato puree, Ultrafiltered milk, and Waste gas.

The following definitions were deleted because they are no longer used in the regulation:

Activin, Canned non-tomato additive, Carbon Dioxide Weighted Tonne, Crystal color concentrate, Execution Date, Futures, Heavy Crude Oil, Industrial Sector

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<sup>1</sup> Available at: <http://www.arb.ca.gov/regact/2013/capandtrade13/attacha.pdf>.

Legacy Contract Counterparty, Legacy Contract Generator, Light Crude Oil, Mixed Crude Oil, Powdered milk, Pretzel, Spot, and Sweetened condensed milk.

The following definitions were modified for clarity:

Aseptic tomato paste, Aseptic whole and diced tomatoes, Budget Year, Buttermilk, Evaporated milk, First Point of Receipt, Gypsum, Legacy Contract, Legacy Contract Emissions, Legacy Contract Qualified Thermal Output, Liquid Hydrogen, Natural Gas Supplier, Over-the-Counter, Poultry deli product, Protein meal and fat, Public Service Facility, Transaction, University Covered Entity, and Whole chicken and chicken parts,

The definition of “Complexity weighted barrel” was modified to incorporate the equation that will be used for allowance allocation under the petroleum refining complexity weighted barrel benchmark.

The definitions of “Legacy Contract Generator with an Industrial Counterparty” and “Legacy Contract Generator without an Industrial Counterparty” were added to distinguish between the reasons for providing allowance allocation to legacy contract generators. A legacy contract generator with an industrial counterparty has a legacy contract counterparty that is a covered entity (or that is in a direct corporate association with a covered entity) in the Cap-and-Trade Program that receives allowance allocation pursuant to 95891. Because these legacy contract generators are not able to pass through the cost of compliance with the Cap-and-Trade Regulation, and because the industrial legacy contract counterparties were provided with allowance allocation to minimize leakage in accordance with AB 32, allowance allocation will be adjusted in the Cap-and-Trade Program by reducing the industrial legacy contract counterparty allocation and providing those allowances to the legacy contract generator with an industrial counterparty. A legacy contract generator without an industrial counterparty will be provided with allowance allocation for transition assistance; the allowances provided to the legacy contract generator without an industrial counterparty will be provided State-owned allowances that would otherwise go to auction, not with allowances that were previously earmarked for covered entities eligible for allowance allocation pursuant to 95819.

Section 95802(b) was modified to specify a new acronym used in the regulation.

#### **A. Modifications to Section 95811. Covered Entities.**

No changes were made to this section.

## **B. Modifications to Section 95812. Inclusion Threshold for Covered Entities.**

Section 95812(b) was modified to clarify that the categories referred to include both those specified in section 95852(a) and in section 95852(b).

Section 95812(d) modified to clarify the reference to section 95851. Section 95812(d)(3) was added to include the threshold for Waste-to-Energy facilities starting on January 1, 2016. This was changed from 2015 in recognition of the continued work ARB is doing with CalRecycle in response to Resolution 12-33.

Section 95812(f) was modified to specify the process if a facility ceases operations or shuts down, including the allowance return requirements for facilities that receive an allocation of a vintage subsequent to the calendar year that the facility ceased operation. The returned allowances will be auctioned on behalf of the State.

New section 95812(g) was added to specify the requirements for entities that wish to apply to change their entity type in the program.

## **C. Modifications to Section 95813. Opt-In Covered Entities.**

Section 95813(g) was modified to clarify that an opt-in covered entity that wishes to opt-out of the program must apply to the Executive Officer by September 1 of the last year of a compliance period.

## **D. Modifications to Section 95814. Voluntarily Associated Entities and Other Registered Participants.**

Section 95814(a)(3) was modified to clarify that individuals who work for an entity providing consulting services to entities under the Cap-and-Trade Regulation and MRR are the individuals that must submit a notarized letter from their employer if that individual wants to register as a voluntarily associated entity.

Section 95814(a)(4) was modified to change the date by which an individual registered as a voluntarily associated entity must provide a notarized letter to ARB.

Section 95814(a)(7) was modified to prohibit individuals employed by entities registered in the tracking system from registering in the Cap-and-Trade Program as a voluntarily associated entity.

#### **E. Modifications to Section 95821. Compliance Instruments Issued by Approved Programs.**

Sections 95821(f) and (f)(1) were removed as all allowances, whether early reduction allowances, price containment reserve allowances, or vintaged allowances issued by Quebec are captured under section 95821(a) and the definition of allowances.

#### **F. Modifications to Section 95830. Registration with ARB.**

Section 95830(b)(1) was modified to clarify the entities and operators subject to MRR that are required to register in the tracking system.

Section 95830(c)(1) was modified to limit the scope of employees at registered entities required to be reported to ARB.

Section 95830(f)(1) was modified to reduce the frequency of required updates to registration information submitted pursuant to section 95833 for corporate associations and the names of individuals with information on the known or expected holding of allowances relative to the known or expected emissions to each calendar quarter rather than within 30 days of the change, unless the change has to do with a direct or indirect corporate associate registered in the tracking system.

Section 95830(f)(3) was modified for clarity and to increase the time frame by which an entity must update its registration to within 30 days of a change and to harmonize with other sections of the regulation.

#### **G. Modifications to Section 95831. Account Types.**

Section 95831(a)(1) was modified to include the Annual Allocation Holding Account.

Section 95831(a)(6) was modified to change the name of the Annual Allocation Holding Account for clarity.

Section 95831(a)(6)(B) was modified to allow account holders to transfer allowances from the Annual Allocation Holding Account to their compliance accounts.

Existing section 95831(a)(6)(C) was removed to prevent allowances deposited in the Annual Allocation Holding Account from being removed for compliance by the Executive Officer as the responsibility for transferring these allowances to the compliance account lies with the account holder.

New section 95831(a)(6)(C) was added to clarify any allowances transferred to a compliance account from the Annual Allocation Holding Account will be subject to the holding limit.

#### **H. Modifications to Section 95832. Designation of Representatives and Agents.**

No changes were made to this section.

#### **I. Modifications to Section 95833. Disclosure of Corporate Associations.**

Section 95833(e) was modified to allow quarterly updates of information related to corporate associations for entities not registered in the tracking system and that changes to corporate associations for other registered entities in the tracking system cannot be made between the end of the auction registration period and the day of the auction or the entity may not participate in the auction.

Section 95833(f)(7) was clarified to identify situations in which registered entities will be considered to have a direct corporate association due to the shared roles of the PAR or the AAR.

#### **J. Modifications to Section 95834. Know-Your Customer Requirements.**

Section 95834(c)(2) was modified to add a timeframe for submittal of verification of documents pursuant to Know-Your-Customer requirements.

#### **K. Modifications to Section 95841.1 Voluntary Renewable Electricity.**

Section 95841.1(a) was modified to clarify that allowance retirement will continue for electricity generation that occurs during the previous year. The modifications also clarify which RECs must be retired and when they must be retired.

Sections 95841.1(b)(1), (2), and (3) were modified to remove the language already stated in (a), and to specify the edition of the CEC Guidelines for California's Solar Electric Incentive Programs followed must be the edition in effect when the system was installed. A clarification was also made to provide direction regarding evidence to be submitted to verify that the CEC Guidelines were followed.

**L. Modifications to Section 95851. Phase-in of Compliance Obligation for Covered Entities.**

Section 95851(c) was modified to extend the limited exemption of emissions from qualified thermal output through the third compliance period, and the compliance obligation for these emissions will be moved upstream to the natural gas supplier.

**M. Modifications to Section 95852. Emission Categories Used to Calculate Compliance Obligations.**

Section 95852(b)(4) was modified to clarify the contract and REC retirement requirements and due dates for REC retirement.

Section 95852(j) was modified to extend the limited exemption related to qualified thermal output through the third compliance period.

Sections 95852(j)(1) was modified to conform with sections 95851(c) and 95852(j), and to clarify dates associated with the application and eligibility for the limited exemption. In addition, the definition of the qualified thermal output term in equations calculating emissions used in the eligibility tests was expanded to distinguish between emissions associated with fuels that can result in a compliance obligation, and fuels with emissions that do not result in a compliance obligation.

Section 95852(j)(2) was modified to conform with sections 95851(c) and 95852(j) and to clarify the dates used in determining eligibility of a district heating facility for the limited exemption.

Section 95852(j)(3) was modified to clarify that only initial eligibility for the exemption under section 95852(j) is assessed using data from data years 2008 through 2013.

Section 95852(j)(4) was modified to conform to the changes in the section listed above, and to clarify the date by which application for the limited exemption must be made.

Section 95852(k) was modified to correct grammatical errors and to correct the references to section 95812. Section 95852(k)(3) was deleted to clarify that the limited exemption from a compliance obligation includes the emissions from the electricity generating facility's parasitic load. Section 95852(k)(5) was modified to conform to section 95812(d) and to specify when allowances would be provided to waste-to-energy facilities approved for the limited exemption.

**N. Modifications to Section 95852.1.1. Eligibility Requirements for Biomass-Derived Fuels.**

Section 95852.1.1(a) was modified to correct a reference to the verification section of MRR.

**O. Modifications to Section 95852.2. Emissions without a Compliance Obligation.**

Section 95852.2(a)(9) was modified to add Renewable Diesel fuel to the list of biomass-derived fuel.

Section 95852.2(b)(4) was modified to clarify that exempt vented and fugitive emissions from local distribution companies are limited to transmission and compression stations.

**P. Modifications to Section 95853. Calculation of Covered Entity's Triennial Compliance Obligation.**

Section 95853(a) was modified to be consistent with section 95812.

Section 95853(e) was added to provide allowance allocation to covered entities that exceeded the program threshold prior to 2012, are eligible to receive allowance allocation under the energy-based allocation methodology for budget year 2015, but prior to 2014, performed an activity not listed in Table 8-1.

**Q. Modifications to Section 95856. Timely Surrender of Compliance Instruments by a Covered Entity.**

Section 95856(b)(2) was modified to correct a reference as 95821(f)(1) no longer exists and all types of Quebec allowances (vintage and non-vintaged) are eligible for use.

Section 95856(d)(4) and (f)(1) were added to let account holders know that there will be restriction for transfers to their compliance account while the annual and triennial compliance obligation surrender process is being completed in the tracking system.

Sections 95856(g)(1) and 95856(g)(2) were modified to reflect the removal of compliance instruments from entity accounts for both the annual and triennial compliance obligations.

Section 95856(h)(1)(A) was modified to apply the annual offset limit of 8 percent to the annual emissions with a compliance obligation that are subsequently multiplied by 30 percent to calculate the amount due for the annual surrender obligation and to retire compliance instruments at the time of the annual compliance surrender event.

Sections 95856(h)(1)(B) and 95856(h)(2)(B) were modified to include Québec price containment reserve and early reduction allowances in the retirement order.

Section 95856(h)(1)(C) was modified to state the earliest vintage allowance would be retired first.

Sections 95856(h)(1)(D) and 95856(h)(2)(D) were modified to correct a section reference.

Section 95856(h)(4) was added to clarify that electric distribution utilities will not be in violation of section 95892(d)(5) based on the compliance retirement order if there are sufficient eligible compliance instruments available for surrender at the time of the compliance surrender event.

#### **R. Modifications to Section 95857. Untimely Surrender of Compliance Instruments by a Covered Entity.**

Section 95857(b)(4) was modified to fix references.

Section 95857(b)(6) was modified to clarify that the untimely surrender obligation is due within five days of the settlement of the first auction or reserve sale conducted by ARB following the surrender date and to explicitly state future vintage allowances are eligible for use to comply with this section.

#### **S. Modifications to Section 95870. Disposition of Allowances.**

Section 95870(d) was modified to update the allocation dates for the EDUs and water agencies.

Section 95870(e) was modified to update the allocation date, correct the budget years from which allocation will occur, and to specify the account in which the allocated allowances will be placed.

Section 95870(e)(4) was modified to clarify that the section refers to legacy contract qualified thermal output, not qualified thermal output.

Section 95870(e)(5) and 95870(e)(6) were modified to appropriately reflect when allocation covering the limited exemption of qualified thermal output will occur, based on when data on covered emissions will be available. This section also clarifies that true-up allowances would be allocated, and that facilities approved for this exemption are not eligible for any other allowance allocation. Section 95870(e)(6) was also modified to specify that, if a facility received more allowances under industrial allocation

for budget years 2013 and 2014 than are needed to cover their compliance obligation for those years, the facility must return those allowances to the Executive Officer.

Section 95870(f) was modified to conform with changes in section 95831, to clarify allocation dates, and to improve clarity regarding required transfer of allowances from a university to a public service facility providing steam to the university.

Section 95870(g) was modified to clarify that allowances will be allocated to eligible legacy contract generators with an industrial counterparty for the term of the contract with the counterparty. Modifications to this section also clarify that the transition assistance to legacy contract generators without an industrial counterparty will receive allowances through the second compliance period. Modifications to this section clarify the date the Executive Officer will deposit allowances, and the account into which the allowances will be deposited.

Section 95870(h) was modified to update the date of allowance allocation.

New section 95870(j) was added to specify that, if an entity's allowance allocation is negative pursuant to section 95891, the negative amount will be applied to the following year's allowance allocation.

Table 8-1 was modified to clarify that Natural Gas Processing (NAICS code 211111) is an activity that is eligible for industry assistance under the program, and to ensure consistency with modifications made to Table 9-1, including adding all activities and associated NAICS codes for benchmarks in Table 9-1. The terms gaseous hydrogen production and liquefied hydrogen was also modified to ensure consistency with modifications to Table 9-1 and MRR. Other non-substantive modifications were also made to reorder activity names for increased clarity on eligible activities.

#### **T. Modifications to Section 95890. General Provisions for Direct Allocations.**

Section 95890(d) was modified to distinguish eligibility requirements for allowance allocation applicable for covered and opt-in covered universities and public service facilities, to set a firm opt-in date and reporting requirements for those entities that choose to opt in, and to specify that the facilities must have a positive or qualified positive emissions data verification statement to be eligible for allowance allocation under this section.

Section 95890(e) was modified to conform to section 95870(g) and to specify that facilities must have a positive or qualified positive emissions data verification statement to be eligible for allowance allocation under this section.

Section 95890(g) was modified to specify that facilities must have a positive or qualified positive emissions data verification statement to be eligible for allowance allocation under this section.

Section 95890(i) was added to specify that facilities that qualify for an exemption for qualified thermal output pursuant to section 95852(j) are not eligible for any other allowance allocation.

#### **U. Modifications to Section 95891. Allocation for Industry Assistance.**

Section 95891(a)(2) was modified to incorporate the equation that will be used for allowance allocation under the petroleum refining complexity-weighted barrel method.

Section 95891(a)(3) was modified to rephrase “were not covered under the California Cap-and-Trade Program” such that it matches the terminology used in the Cap-and-Trade Regulation.

Section 95891(b) was modified to specify that a true-up will only be calculated for entities that were covered under the program two years prior to the vintage being issued, and that entities receiving allocation pursuant to section 95891(d) for budget years 2013 and 2014 will not be allocated true-up allowances for hydrogen production in those data years (these entities will be provided allocation covering the emissions from hydrogen production under 95891(d)).

Table 9-1 was modified as follows:

- Benchmark units “Barrel of Thermal Crude Oil Eqv.” and “Barrel of Non Thermal Crude Oil Eqv.” were modified to match the phrasing of definitions already included in the regulation.
- Benchmarks and associated activities and benchmark units were added (or updated for clarity) for newly developed product benchmarks.
- Activities and benchmark units were modified to conform to definition modifications.
- A more appropriate NAICS sector definition and six-digit NAICS code was included for pistachio processing and almond processing.
- The benchmark for tissue was separated to account for the fact that different tissue products (bathroom tissue, facial tissue, delicate task wipers, and paper towels) serve different functions.
- In response to a request from the refining sector, the complexity weighted barrel replaced the CO<sub>2</sub> weighted tonne as the benchmark unit for the petroleum refining benchmark.
- The benchmark units for gaseous hydrogen production and liquid hydrogen were modified to conform to terms used in the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions.

Section 95891(c) was modified to re-incorporate the activity “a” factors for the assistance factor and cap adjustment factor that were incorrectly removed in the 45-day regulation package.

Section 95891(c)(3) was modified to specify that a true-up will only be calculated for entities that were covered under the program two years prior to the vintage being issued, and that true-up allowances can be used for compliance for two years prior to the budget year being issued and subsequent years.

Section 95891(d)(1)(B) was modified to clarify in which calendar years the true-up would be allocated, that true-up allowances can be used for compliance for two years prior to the budget year being issued and subsequent years, to define clearly terms used in equations, and to clarify that the actual emissions used in the true-up equation are from two years before the budget year of allowances being allocated.

Section 95891(d)(2)(B) was modified to state that, if an entity’s allocation for budget years 2013 and 2014 under section 95891(d) was more than its 2013 and 2014 emissions, its allocation under 95891(b) will be reduced according to the given equation.

Section 95891(d)(2)(B) and section 95891(d)(2)(C) were modified to clarify that true-up will occur with vintage 2016 allowances. This modification was necessary because the entity will not report its 2014 emissions until calendar year 2015.

95891(d)(2)(C) was also modified to state that that true-up allowances issued under this section can be used for compliance for 2013 and subsequent years.

Sections 95891(e)(1) and (e)(2) were modified to account for cases in which a university opt-in covered entity purchases qualified thermal output from a public service facility, and for cases in which a university or public service facility sells or provides qualified thermal output to an outside entity.

Section 95891(e)(4) was modified to clarify that reports on the use of allowance value should refer to allocated allowances from the previous budget year, and that the market clearing price from the current auctions (not the advance auctions) should be used to place value on allocated allowances.

Section 95891(f) was modified to clarify an adjustment to a legacy contract counterparty allowance allocation will only occur if the Executive Officer approves the transition assistance for the legacy contract generator with an industrial counterparty. Additionally, section 95891(f)(4) was deleted to remove the requirement to have the

industrial counterparties allowance allocation prorated if the parties successfully renegotiated the contract.

**V. Modifications to Section 95892. Allocation to Electrical Distribution Utilities for Protection of Electricity Ratepayers.**

Section 95892(b)(3) was modified to specify that if an EDU fails to submit its allowance distribution preference by the September 1 deadline (or first business day thereafter), ARB will automatically place all directly allocated allowances in its limited use holding account.

**W. Modifications to Section 95893. Allocation to Natural Gas Suppliers for Protection of Natural Gas Ratepayers.**

Section 95893(b)(1) was modified to specify that if a natural gas supplier fails to submit its allowance distribution preference by the September 1 deadline (or first business day thereafter), ARB will automatically place all directly allocated allowances in its limited use holding account.

Section 95893(e) was modified to clarify that reports on the use of allowance value should refer to allocated allowances from the previous budget year, and that the market clearing price from the current auctions for that budget year should be used to place value on allocated allowances.

**X. Modifications to Section 95894. Allocation to Legacy Contract Generators for Transition Assistance.**

Section 95894 was changed to incorporate the new and modified definitions referring to legacy contracts and to repeat definitions of equation terms immediately following each equation for clarity.

Section 95894(a) was modified to change the date by which the required data and information must be submitted for legacy contract generators to be considered for transition assistance (this date now matches the MRR verification deadline) and to clarify the information and data to be submitted.

Section 95894(a)(3) was modified to clarify that legacy contract qualified thermal output (and not qualified thermal output) is the term of interest for legacy contracts.

Section 95894(b) was modified to update the date by which the Executive Officer must inform the Legacy Contract Generator whether it is approved to receive transition assistance.

Section 95894(c) was modified to reflect the extended transition assistance through the term of the contract with the counterparty for legacy contract generators with an industrial counterparty or entity in a direct corporate association with the counterparty, to incorporate the assistance factor and cap adjustment factor for the industrial counterparty (or entity in a direct corporate association with the counterparty), to clarify that true-up allowances can be used for the budget years indicated as well as subsequent years, to specify the budget year from which allowances will be allocated, to clarify that allocation will only be provided for covered entities that are approved for transition assistance, and to clarify that allocation is for the legacy contract emissions.

Section 95894(d) was modified to reflect the extended transition assistance through the second compliance period for Legacy Contract Generators without an industrial counterparty, to clarify that true-up allowances can be used for the budget years indicated as well as subsequent years, and to clarify that allocation will only be provided for covered entities that are approved for transition assistance.

**Y. Modifications to Section 95895. Allocation to Public Wholesale Water Agencies for Protection of Water Ratepayers.**

Table 9-5 was modified to adjust the 2015 allocation to Metropolitan Water District.

**Z. Modification to Section 95910. Auction of California GHG Allowances.**

Section 95910(a)(3) was modified to allow some flexibility in the auction schedule.

Section 95910(d)(4) was modified to remove the specific time by which consigned allowances must be transferred to the auction holding account.

**AA. Modification to Section 95911. Format for Auction of California GHG Allowances.**

Section 95911(d)(4) was modified to change the purchase limit for industrial entities to 20 percent only for the last auction in 2014.

Sections 95911(d)(5) and 95911(d)(6) have been modified to clarify that, beginning in 2015, the auction purchase limits are applicable for both current and advance auctions for industrial entities, electricity distribution utilities, and voluntarily associated entities.

Section 95911(d)(6) is also modified to state that any direct corporate associations which may include a voluntarily associated entity cannot assign more than 4 percent of the applicable auction purchase limit to that voluntarily associated entity if it opts out from a consolidated account in the tracking system.

**BB. Modifications to Section 95912. Auction Administration and Participant Application.**

Section 95912(d)(4) was modified to remove the time by which auction applications are due.

Section 95912(d)(4)(E) was modified to clarify the scope of the attestation required from all auction participants disclosing the status of any ongoing investigation or any investigation occurring within the last ten years regarding a variety of markets related to the Cap-and-Trade program. The existing regulation already required a disclosure of such information as part of the auction application process.

Section 95912(d)(5) was modified to limit the amount of information that must remain static thirty days prior to an auction, and to eliminate the provision requiring auction application information to remain static fifteen days post auction.

Section 95912(j)(3) was modified to specify that bid guarantees submitted in forms other than cash must be payable within three business days.

Section 95912(j)(5) was modified to remove unnecessary text.

Section 95912(j)(7) was modified so that bid guarantees expire no sooner than twenty-six days post-auction to harmonize with the revised time frame for non-cash bid guarantees outlined in section 95912(j)(3).

**CC. Modifications to Section 95913. Sale of Allowances from the Allowance Price Containment Reserve.**

Section 95913(e)(2) was modified to remove the restriction that information pertaining to the auction application cannot change within 15 days after an auction. The section was also modified to limit the information that must remain static in the auction application as pursuant to section 95912(d)(4) from changing 20 days prior to the auction.

Section 95913(g) was modified to remove the time by which reserve sale applications are due. Sections 95913(g)(3) and (g)(5) were modified to harmonize the non-cash bid guarantee requirement and bid guarantee expiration for the reserve sale with that of the auction.

Section 95913(h) was modified to clarify the intent of the text and to modify an incorrect reference.

Section 95913(i) was modified to specify the correct account where allowance monies are to be placed.

#### **DD. Modifications to Section 95914. Auction Participation and Limitations.**

Section 95914(c)(1) was modified to clarify that an entity cannot release any information pertaining to the intent to participate or not participate in an auction or reserve sale. The non-disclosure for participation also applies to the registered entities corporate associations, consultants, and advisors.

Section 95914(c)(2)(B) was modified for clarity in reference to Cap-and-Trade Consultants or Advisors.

Section 95914(c)(2)(D) was modified to outline the conditions under which auction information can be released by privately owned utilities and that a privately owned utility that makes any such release is required to provide the specific regulatory requirements under which it provided the specific information to the Executive Officer.

Sections 95914(c)(3)(A)-(C) were modified to clarify the terminology of Cap-and-Trade Consultants or Advisors.

Section 95914(c)(3)(C) was removed to eliminate a duplication in reporting of Cap-and-Trade Consultants or Advisors pursuant to section 95923(b).

Section 95914(c)(3)(D) replaces old section 95914(c)(3)(C) and was modified for consistency in reference to Cap-and-Trade Consultants or Advisors.

Section 95914(c)(3)(D) was added to clarify that all information pertaining to Cap-and-Trade Consultants or Advisors must be received, physically, by ARB at least fifteen days prior to an auction.

Section 95914(d)(3) was modified to clarify that changes to the auction purchase limit cover corporate associations. The auction purchase limit for corporate associations containing entities with a compliance obligation and voluntarily associated entities will be twenty percent. From January 1, 2015 through December 31, 2020, the auction purchase limit for corporate associations containing electric distribution utilities, covered, entities, and opt-in covered entities will be twenty-five percent. The maximum limit for a voluntarily associated entity, within a corporate association or not, will be 4 percent.

#### **EE. Modifications to Section 95920. Trading.**

Section 95920(b)(5) was modified to include the order of allowances to be removed in the case of a holding limit violation. That order is the opposite order for retirement at the time of the annual or triennial compliance obligation surrender.

Section 95920(c) was modified to include the non-vintaged allowances issued by a linked program.

Section 95920(d)(2) contains modifications to the calculation of the limited exemption. Several provisions concerning calculations made prior to 2014 are removed. The existing procedure for calculating the limited exemption is updated using dates from 2014 and later. The provisions specifying which emissions data reports are used to calculate the limited exemption now contain specific references to the regulation sections defining the scope of covered emissions. The annual increase in the limited exemption will now occur on November 2. New text clarifies that whenever verified emissions reports are not available and ARB has not assigned an emissions value to an entity, the limited exemption will be increased using the most recently received verified report. The date on which the limited exemption is reduced following a surrender event is changed from December 31 to November 2 of the year following the end of a compliance period.

New text is added to clarify that allowances placed in an entity's annual allocation holding account prior to their vintage year will not count towards the limited exemption or Holding Limit until January 1 of their vintage year.

#### **FF. Modifications to Section 95921. Conduct of Trade.**

Section 95921(a)(1)(E) was deleted to remove a provision setting a deadline for completing the transfer request. The deadline is replaced by deadlines in sections 95921(a)(3), which will take effect on July 1, 2014 and (a)(4), which will take effect on January 1, 2015.

Section 95921(a)(5) was modified to clarify that transfer requests must only be submitted to fulfill written or recorded oral agreements.

Section 95921(b) was modified so that the requirements of the proposed amendments will take effect on January 1, 2015. The requirement that every transfer request identifies an account representative from a receiving account has deleted.

Sections 95921(b)(3)(B) and (b)(4)(B) were modified to replace the identification of the Settlement Date of a transaction agreement with a requirement to identify the Expected Termination Date of the transaction agreement. The change clarifies the date on which parties to a transfer expect the terms of the agreement to be completed. Additional changes in 95921(b)(4), (b)(4)(C) and (b)(4)(D) were made to clarify the information submitted when transfers involve multiple products or multiple transfers.

Minor changes were made to sections 95921(b)(5) and (b)(6) for clarity. In addition, POUs will be allowed to enter a price of zero for certain transfers.

Existing section 95921(c) was deleted and moved to new section 95921(i) with modifications for clarity. New section 95921(c) contains requirements for information submitted for transfer requests that will be in effect through December 31, 2014. These consist of the existing information requirements, modified for clarity and containing the list of instances in which entities may enter a price of zero. The requirements in this section will be in force until January 1, 2015 when the requirements of section 95921(b) come into effect.

Section 95921(f) contains minor modifications for clarity and removal of language prohibiting the holding of allowances in one account in which another entity has a financial interest. New language in the section clarifies the type of transactions that are allowed.

References in section 95921(h) are corrected to reflect the reorganization of section 95921.

New section 95921(i) contains text from existing section 95921(c) edited for clarity and with references modified to reflect the reorganization of section 95921.

**GG. Modifications to Section 95922. Banking, Expiration, and Voluntary Retirement.**

No modifications were made to this section.

**HH. Modifications to Section 95923. Disclosure of Cap-and-Trade Consultants and Advisors.**

Section 95923(a) was modified to clarify the services that qualify an employee as a Cap-and-Trade Consultant or Advisor.

Section 95923(b) was modified to reflect the deletion of duplicative section 95914(c)(3).

Section 95923(b)(2) was removed to limit the information required regarding the duties of a Cap-and-Trade Consultant or Advisor.

Section 95923(c)(2) was modified to clarify that an entity must disclose information pertaining to a Cap-and-Trade Consultant or Advisor within 30 days of entering into a contract.

**II. Modifications to Section 95942. Interchange of Compliance Instruments with Linked External Greenhouse Gas Emissions Trading Systems.**

No changes were made to this section.

**JJ. Modifications to Section 95970. General Requirements for ARB Offset Credits and Registry Offset Credits.**

No changes were made to this section.

**KK. Modifications to Section 95971. Procedures for Approval of Compliance Offset Protocols.**

No changes were made to this section.

**LL. Modifications to Section 95972. Requirements for Compliance Offset Protocols.**

No changes were made to this section.

**MM. Modifications to Section 95973. Requirements for Offset Projects Using ARB Compliance Offset Protocols.**

Minor and non-substantive changes were made to Section 95973(b) for increased clarity.

**NN. Modifications to Section 95974. Authorized Project Designee.**

Section 95974(a)(2) was modified to clarify the differentiation of roles between the Offset Project Operator (OPO) and Authorized Project Designee (APD). This section was also modified to include requirements that consultants must meet for participating in the offset program.

**OO. Modifications to Section 95975. Listing of Offset Projects Using ARB Compliance Offset Protocols.**

New section 95975(f) was added to clarify ARB's role in reviewing listing information.

Original section 95975(f), now section 95975(g), was modified to include a timeframe in which the listing information must be reviewed by ARB or an Offset Project Registry (OPR).

Original section 95975(j), now section 95975(k), was modified to clarify the roles of the OPR and the verification body in reviewing additionality requirements for listings submitted for a renewed crediting period.

Sections 95975(o)(1) and (o)(3) were modified to clarify the requirements for transferring an offset project between OPRs.

**PP. Modifications to Section 95976. Monitoring, Reporting, and Record Retention Requirements for Offset Projects.**

Section 95976(d) was modified to include a regulatory citation.

**QQ. Modifications to Section 95977. Verification of GHG Emission Reductions and GHG Removal Enhancements from Offset Projects.**

Section 95977(b) was modified to clarify that if a Compliance Offset Protocol (COP) includes verification schedule requirements, those requirements must also be met. Additional changes were made to ensure the requirements are applied to the Reporting Period.

**RR. Modifications to Section 95977.1. Requirements for Offset Verification Services.**

Sections 95977.1(a) through (a)(1) were modified to clarify that the requirements for rotation of verification bodies must be applied to all offset verification team members, as well as any technical consultants hired by the OPO or APD. Modifications were also made to clarify the rotation of verification body requirement for ozone depleting substances and reforestation projects. New sections 95977.1(a)(3) and (a)(4) were added to clarify how the rotation of verification body requirements apply to verification activities done under the early action program.

Section 95977.1(b)(2) was modified to clarify the timing for when a verification body must resubmit a Notice of Offset Verification Services and to add consistency between working days and calendar days.

Section 95977.1(b)(3) was modified to clarify that information on planning meetings is not required to be included in the verification plan. This section was modified to include regulatory citations for clarity. This section was modified to clarify the requirements for site visits, including: clarifying how the site visit requirements apply when verification is deferred for qualifying non-sequestration projects, requirements that the verification team must meet for documenting site visit activities, and requirements that the verification team must meet when reviewing listing information. In addition, this section was modified to clarify the requirements that the verification body must meet when making information available to ARB. This section was modified to clarify the requirements that the verification team must meet for documenting data checks in the issues log and to clarify the requirements for OPOs and APDs for fixing correctable errors in the data. This section was modified to clarify the offset material misstatement calculation to ensure it is being calculated correctly and to apply the offset material misstatement calculation to removal enhancements. This section was also modified to clarify that ARB and the OPR may request revisions to the Offset Project Data Report

and the Offset Verification Statement after the final submission of the verification materials. Other minor and non-substantive changes were also made to Section 95977.1(b)(3) clarity.

**SS. Modifications to Section 95978. Offset Verifier and Verification Body Accreditation.**

Sections 95978(d), (e), and (f) were modified for increased clarity.

**TT. Modifications to Section 95979. Conflict of Interest Requirements for Verification Bodies and Offset Verifiers for Verification of Offset Project Data Reports.**

Sections 95979(a) through (f) were modified to apply the conflict of interest requirements to the offset verification team and any technical consultants used by the OPO or APD.

Section 95979(f)(1) was modified to make the requirements in this section consistent with requirements in section 95977.1(b)(2).

**UU. Modifications to Section 95979.1 Additional Requirements for Air Quality Management Districts and Air Pollution Control Districts.**

No changes were made to this section.

**VV. Modifications to Section 95980. Issuance of Registry Offset Credits.**

No changes were made to this section.

**WW. Modifications to Section 95980.1 Process for Issuance of Registry Offset Credits.**

No changes were made to this section.

**XX. Modifications to Section 95981. Issuance of ARB Offset Credits.**

Section 95981(b)(5) was modified to clarify that OPOs and APDs may request to only have a portion of GHG reductions or removal enhancements be issued ARB offset credits.

**YY. Modifications to Section 95981.1. Process for Issuance of ARB Offset Credits.**

Section 95981.1(a) was modified to clarify that ARB offset credits are issued into the Issuance Account and not directly to the OPO or APD.

Section 95981.1(c) was modified to include a regulatory citation for clarity.

**ZZ. Modifications to Section 95982. Registration of ARB Offset Credits.**

No changes were made to this section.

**AAA. Modifications to Section 95983. Forestry Offset Reversals.**

Section 95983(b)(1) was modified to clarify that a full verification must be conducted after an unintentional reversal and specify the process that must be used for the full verification. This was the intent of the original provisions in this section and staff added additional language to make the requirements explicit.

Section 95983(c)(2) was modified to clarify that a full verification must be conducted after an intentional reversal and specify the process that must be used for the full verification. This was the intent of the original provisions in this section and staff added additional language to make the requirements explicit.

Section 95983(c)(4) was modified for non-substantive clarifications.

**BBB. Modifications to Section 95984. Ownership and Transferability of ARB Offset Credits.**

No changes were made to this section.

**CCC. Modifications to Section 95985. Invalidation of ARB Offset Credits.**

Section 95985(b)(1) was modified to include regulatory citations to the Compliance Offset Protocols throughout the section. This section was modified to clarify the rotation of verification body requirements that must be met to reduce the statute of limitations for invalidation and to clarify how the invalidation requirements apply to projects developed under approved early action quantification methodologies. This section was also modified to clarify the Offset Project Registries' and ARB's role in reviewing the invalidation verification information for program transparency.

Section 95985(g)(1) was modified to change the word "rounding" to "truncation" to better align with ARB's tracking system operation.

Section 95985(h)(1) was modified to change the word "rounding" to "truncation" to ensure consistency with changes made to section 95830 and to better align with ARB's tracking system operation.

Sections 95985(h)(1) and (h)(2) were also modified to move the date specified for forest buyer liability to July 1, 2014.

Section 95985(i) was also modified to move the date specified for forest buyer liability to July 1, 2014.

**DDD. Modifications to Section 95986. Executive Officer Approval Requirements for Offset Project Registries.**

Section 95986(d)(4) was modified to correct the capitalization and make it consistent within the section.

Section 95986(m) was modified to clarify that the requirements in this section may be, but are not required to be, applied at the subdivision level.

**EEE. Modifications to Section 95987. Offset Project Registry Requirements.**

No changes were made to this section.

**FFF. Modifications to Section 95990. Recognition of Early Action Offset Credits.**

Section 95990(c)(3) was modified to clarify that the two new provisions added in sections 95990(c)(3)(A) and (c)(3)(B) apply to listing an offset project with an Early Action Offset Program. Section 95990(c)(5) was modified to accurately note which methodologies are approved as early action quantification methodologies.

Section 95990(d)(2) was modified to correct a citation.

Section 95990(d)(3) was modified to ensure the requirements in this section are consistent with the changes made to section 95990(j)(2) in the 45-day Regulation, for who may list early action projects and request issuance of ARB offset credits.

Section 95990(e)(1) was modified to correct a citation and to ensure the requirements in this section are consistent with the changes made to section 95990(j)(2) in the 45-day Regulation for who may list early action projects and request issuance of ARB offset credits. Section 95990(e)(2) was modified to clarify the information that must be submitted for listing. Section 95990(e)(3) was modified to make explicit the existing requirement that the party that transitions an early action offset credit to an ARB offset credit must ensure the permanence of the reductions and removal enhancements they bring in to the compliance offset program. This section was also modified to require early action offset credits to be approved by an Early Action Offset Program before the corresponding Reporting Period may be listed with ARB. This is required so ARB can

ensure that the early action offset credits meet the requirements of section 95990(c) before it begins a review of the project information. This section was also modified to require that early action projects list with ARB prior to January 1, 2016. This will allow the OPOs, APDs, holders enough time to finish the required regulatory verification and issuance requirements.

Section 95990(f)(1) was modified to clarify that a verification body conducting an early action desk review does not have to meet the same rotation of verification requirements as projects undergoing verification under a Compliance Offset Protocol. Section (f)(3) was modified for clarity. This section was also modified to clarify the process for ARB's review of a desk review verification, and to clarify the requirements that verification bodies must meet to satisfy the requirements for completing a desk review. Section (f)(6) was modified to fix punctuation.

Section 95990(h)(5) was modified to correct a citation and to ensure the requirements in this section are consistent with the changes made to section 95990(j)(2) in the 45-day Regulation, for who may list early action projects and request issuance of ARB offset credits.

Section 95990(i)(1) was modified to add regulatory citations to the applicable Compliance Offset Protocols and fix citations due to added subsections. This section was also modified to correct a naming error for an early action quantification methodology. The section was also modified to further clarify the types of reductions that may be credited as ARB offset credits for mine methane capture projects. This change is needed to ensure that emission reductions from covered sectors in the cap-and-Trade program are not credited as offsets.

Sections 95990(j)(1) was modified to specify that the ARB offset credits may also be transferred to ARB's Forest Buffer Account. This change is needed to align the requirements with the operation of ARB's tracking system. In addition, sections 95990(j)(1) and (j)(2) were modified to fix citations due to added subsections. In addition 95990(j)(2) was modified to allow OPOs and APDs to only request a portion of GHG reductions or removal enhancements to be issued ARB offset credits.

Sections 95990(k)(1) was modified to clarify which methodologies are approved as early action quantification methodologies and to add a citation to the applicable Compliance Offset Protocol. Section 95990(k)(3) was modified to clarify that reductions credited as early action may be achieved in all the years from 2005 to 2014 and not just 2014. This is consistent with the criteria already established in section 95990(c).

Sections 95990(l)(1) and (l)(2) were modified to move the date specified for forest buyer liability to July 1, 2014. This change was made in response to stakeholder comment

that the date for implementing forest buyer liability should be after these proposed amendments take effect.

Sections 95990(I)(3) and (I)(4) were modified to clarify the verification requirements that must be met to reduce the statute of limitations for invalidation for projects developed under approved early action quantification methodologies. These requirements are consistent with the requirements for reducing the invalidation timeframe for projects developed under Compliance Offset Protocols pursuant to section 95985. This section was also modified to clarify the Offset Project Registries' and ARB's role in reviewing the invalidation verification information. These requirements are consistent with the requirements for reducing the invalidation timeframe for projects developed under Compliance Offset Protocols pursuant to section 95985. This section was also modified to clarify that errors do not need to be corrected in the offset project data during a second regulatory verification to reduce the invalidation timeframe. Data corrections in the case of a second regulatory verification are not needed because if there is a discrepancy in the final opinion, any overstatements would result in invalidation. Sections 95990(I)(3) and (I)(4) were also modified to correct citations and add citations to the applicable Compliance Offset Protocol.

Section 95990(I)(5) was deleted because the requirement is duplicative of requirements specified in section 95985 and other provisions in section 95990(I).

**GGG. Modifications to Section 96022. Jurisdiction of California.**

No changes were made to this section.

**HHH. Modifications to Appendix B: CITSS User Terms and Conditions**

No changes were made to this section.

**III. Modifications to Appendix C: Quarterly Auction and Reserve Sale Dates**

No changes were made to this section.

**1. Modifications to Compliance Offset Protocol Mine Methane Capture Projects**

Modifications to the originally proposed protocol text are shown in ~~strikethrough~~ to indicate deletions and underline to indicate additions.

## **Chapter 1. Purpose and Definitions**

Several definitions contained in section 1.2(a) were added or modified to improve clarity of the existing definition or the overall protocol and to ensure that the protocol is consistent with the Cap-and-Trade Regulation. MSHA classifications were added and removed from the definitions of “abandoned underground mine,” “active surface mine,” and “active underground mine” to better match the classification with each mine type. The definition of “flooded mine” was modified to include flooded sections of a mine to reflect changes to section 2.4(i)(3). The definition of “non-qualifying destruction device” and “qualifying destruction device” were modified to reflect changes to section 2.4(b). The definitions of “sealed,” and “venting,” in reference to an abandoned underground mines, were modified to ensure that the protocol does not incentivize the unsealing of sealed mines for the purpose of increasing the baseline emissions of a project undertaking abandoned underground mine methane recovery activities. The definition of “initial start-up period” was added to section 1.2(a) to clarify section 3.6(a). The definition of “natural gas seep” was added to reflect changes to section 5.4.1(u). The definition of “ventilation air” was added to differentiate it from “ventilation air methane,” a change made throughout the protocol. The term “greenhouse gas assessment boundary” was changed to “offset project boundary” to be consistent with the Cap-and-Trade Regulation; this change was made throughout the protocol. The definition of “Mandatory Reporting Regulation” was added to clarify section 5(f) and reflect changes to section 1.2(a) and table A.1. The text of the definitions of “accuracy,” “basin,” “coal,” “emission factor,” “flare,” “flow meter,” and “uncertainty” was replaced with references to section 95102 of the Mandatory Reporting Regulation, where each of these terms are defined. The definitions of “boiler,” “Executive Officer,” and “oxidation” were removed as these terms are defined in the Cap-and-Trade Regulation or in proposed amendments thereto. The definition of “ASTM” was moved to section 1.2(c). The definition of “vented emissions” was removed as the term was not used in the protocol.

Acronyms were added and deleted from section 1.2(c) to ensure that all acronyms used in the protocol, and only acronyms used in the protocol, were included in this section.

## **Chapter 2. Eligible Activities**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol, including in sections 2.1, 2.2, 2.3, and 2.4.

The methane sources eligible for active underground ventilation air methane activities in section 2.4(a) were adjusted to reflect that a methane source encompasses all ventilation shaft in the aggregate rather than any individual ventilation shaft. Section 2.4(a) was modified to clarify methane sources, and section 2.4(b) was modified

to expand the definition of qualifying device for abandoned underground mine methane recovery activities for the purpose of encouraging the continuation of methane destruction if the underground mine transitions from active to abandoned status.

### **Chapter 3. Eligibility**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol.

Section 3.3(d) was modified to expand the definition of the Offset Project Operator to include the owner or lessee of the equipment used to capture or destroy mine methane.

Sections 3.4.1(a) and 3.4.1(b) were modified so as to not be duplicative with the Cap-and-Trade Regulation. The removal of “at the time of offset project commencement” was a non-substantive change as the protocol works in conjunction with the Regulation which requires that the legal requirements test be applied at the time of offset project commencement and offset project renewal. Section 3.7 was left unchanged ensuring that an offset project will remain eligible for the duration of the limited ten-year crediting period.

Section 3.4.2(b)(4) was modified to exclude pipeline injection as an eligible end-use management option at abandoned underground mines that injected mine methane into a natural gas pipeline while active, an activity already deemed to be common practice and therefore ineligible for the purpose of this protocol. Upon further analysis of project data, including additional documents added to the record and specified in this notice, ARB concluded that continuing pipeline injection activities after abandonment is common practice and considered business-as-usual.

A minor change to the offset project crediting period was made in section 3.7 to reflect the fact that, per the Cap-and-Trade Regulation, the first reporting period for an offset project in an initial crediting period may consist of 6 to 24 consecutive months. It is therefore logical to define a crediting period by the number of reporting periods rather than the number of years.

Sections 3.8(a), (b), (c), and (d) were removed as these requirements are already specified in the Cap-and-Trade Regulation.

### **Chapter 4. GHG Assessment Boundary**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol.

Tables 4.1, 4.2, 4.3, and 4.4 were modified to clarify that the energy consumed by additional equipment used by the project is included in the offset project boundary. This

is consistent with existing language from sections 5.1.2(d), 5.2.2(d), 5.3.2(d), and 5.4.2(d). Tables 4.3 and 4.4 were similarly modified to clarify that the emissions from additional well drilling, and not well drilling that would have taken place without the project, are included in the offset project boundary.

## **Chapter 5. Quantifying GHG Emission Reductions**

### **Changes Applicable to All Activity Types**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol and to clarify the quantification methodology. Some clauses were relocated within the chapter to improve the logical sequence and clarity of the text. Some equations contained within the chapter were modified to fix erroneous mistakes or add terms missing from the original draft of the protocol; these changes are consistent with the intent of the calculation and ensure the accurate quantification of emission reductions.

The term ton (t) was replaced throughout the chapter with metric ton (MT) to add specificity to the quantification methodology. The CO<sub>2</sub> emission factor for combusted methane was adjusted from 2.75 to 2.744 to provide greater accuracy in calculations in equations 5.3, 5.8, 5.14, 5.20, 5.26, 5.35, 5.41 and 5.47. Similarly values used in equations 5.11, 5.23, 5.38, and 5.50, to adjust volumes and flow rates to standard temperature and pressure, were modified to include a greater number of significant digits rather than the rounded version of conversion values.

Ventilation air methane (VAM) was replaced with ventilation air (VA) in many places to better define and more accurately reflect the methane capture and destruction process. Similarly, some references to mine methane (MM), surface mine methane (SMM), and abandoned mine methane (AMM) have been replaced with mine gas (MG) where appropriate.

Section 5(e) was added to make explicit that the need to adjust measurements to standard temperature and pressure will vary based on the technology employed by the project and may not be required for all measurements

Language was added to equations pertaining to the release and destruction of methane in the baseline and project scenarios (equations 5.4, 5.5, 5.9, 5.10, 5.15, 5.16, 5.21, 5.22, 5.57, 5.28, 5.36, 5.37, 5.42, and 5.49) to explicitly allow offset project operators or authorized project designees who monitor and record methane concentrations and flow rates to be calculated on a more frequent basis at a higher frequency than required by the protocol to use this data within appropriate variables to reflect the higher frequency of data collection.

Sections 5.1.1(i)-(m), 5.2.1(j)-(n), 5.3.1(j)-(m), and 5.4.1(k)-(n) were added to provide instruction for determining values of terms used in baseline calculations. The protocol previously provided limited directions for determining the values for baseline methane concentrations but was silent on the remaining terms used in equations 5.4, 5.5, 5.15, 5.16, 5.27, 5.28, and 5.42. The added language expands the guidance to offset project operators on how to determine baseline values for methane concentration as well as for the remaining variables including gas flow rates, gas volumes, and hours of destruction device operation as they pertain to the baseline calculations for each activity type.

Language was added to 5.1.2(d), 5.2.2(d), 5.3.2(d), and 5.4.2(d) in order to clarify the scope of the calculations for project emissions from energy consumed to capture and destroy methane. The scope remains consistent with the greenhouse gas sinks, sources, and reservoirs as defined in section 4.

Language was added to sections 5.2.2(l), 5.3.2(l), and 5.4.2(h) to explicitly state that destruction technologies not listed in Appendix B must use site-specific methane destruction efficiencies. The process of determining site-specific methane destruction efficiencies remains unchanged. Because destruction efficiencies also apply to baseline calculations, the instructions pertaining to destruction efficiencies were added as sections 5.2.1(o), 5.3.1(n), and 5.4.1(o).

### **Changes Specific to Active Underground Mine Ventilation Air Methane Activities**

Sections 5.1.1(k), 5.1.1(l), 5.1.1(m), 5.1.2(h), 5.1.2(i), and 5.1.2(j) 5.1.1(n), 5.1.1(o), 5.2.1(h), and 5.2.1(i) were added to complement the changes to the calculation of non-oxidized methane contained in equations 5.4, 5.5, and 5.9, and 5.10. These additions were made to account for cooling air sometimes added after the metering point of ventilation air entering the destruction device. Including this additional cooling air in the equation corrects for potential inaccuracies in the calculation of methane concentration in the exhaust gas, thereby preventing over-crediting of emission reductions. The change in terms used to account for non-oxidized methane required a subsequent change to the calculation of the weighted average of the measured methane concentration of the exhaust gas. Therefore, those changes were also made in equations 5.5, 5.9, and 5.10.

The calculation of volume of ventilation air sent to destruction devices, previously constructed as average flow rate x device operation time, was removed from equation 5.9. It is anticipated that many projects will calculate volume in this fashion but removing the specific supplemental equation allows for projects with metering equipment that provides a volume output to rely on this data without having to additionally monitor flow rate and operation time. This is a non-substantive change and is consistent with the equations in the rest of the chapter.

### **Changes Specific to Active Underground Mine Methane Drainage Activities**

The terms used in the calculation of measured methane that would have been sent to non-qualifying destruction devices in Equation 5.15 were changed to represent the methane sources associated with active underground mine methane drainage activities rather than those of active surface mine methane drainage activities that were incorrectly used in the 45-day language.

### **Changes Specific to Active Surface Mine Methane Drainage Activities**

The original section 5.3.1(n) was removed as the language is only applicable to underground mines and not to surface mines.

The terms  $PSW_{e_{pre,i}}$ ,  $ECW_{e_{pre,i}}$ ,  $AWR_{e_{pre,i}}$ , and  $CDW_{e_{pre,i}}$  found in equations 5.29, 5.30, 5.31, and 5.32, respectively have been modified so that they reflect only mine gas sent to qualifying destruction devices since the beginning of the crediting period, rather than the offset project commencement date from wells mined through during the reporting period. This change prevents over-crediting of emission reductions that may have occurred between the time of offset project commencement and the beginning of the crediting period.

### **Changes Specific to Abandoned Underground Mine Methane Recovery Activities**

Language was added to sections 5.4.1(t)(2) and 5.41(u) to allow for the inclusion of emissions from natural gas seeps in measured data used to derive mine-specific hyperbolic emission rate decline curve coefficients. This addition will result in quantified baseline emissions derived from mine-specific hyperbolic emission rate decline curve coefficients that better reflect the actual emissions of the abandoned underground mine.

Equation 5.45 was removed due to being redundant. Equation 5.50, previously 5.51, serves the same purposes of adjusting flow rate or volume data to standard temperature and pressure.

## **Chapter 6. Monitoring**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol.

The phrase “Quantification Methodology” was added to the chapter heading to indicate that monitoring requirements are an essential part of the quantification methodologies required by the protocol. The “Quantification Methodology” designation was removed from sub-chapter headings so as to avoid redundancy.

Modifications were made to section 6.2 on instrument QA/QC in order to accommodate the range of technologies used to monitor the destruction of mine methane. Some

clauses were relocated within this section to improve the logical sequence and clarity of the text. Section 6.2(b) was added to require that instruments be checked prior to taking correction action. Language was added to make explicit that checks on methane analyzers used to monitor methane concentrations for active underground VAM activities must use reference gases below or equal to 2% methane. This change is warranted given that ventilation air has a comparable methane concentration.

Items were removed from section 6.3 on document retention based on the fact that those documents would not be in the control of the Offset Project Operator or Authorized Project Designee if those parties are different from the mine operator. Items removed from this section were relocated to chapter 8, which requiring these documents to be provided during verification upon the request of the offset project verifiers.

Language was added to sections 6.4, 6.5, 6.6, and 6.7 to explicitly allow data measurements to be recorded in an alternative unit than those listed in tables 6.1, 6.2, 6.3, and 6.4 as long as those measurements are appropriately converted to the units specified for use in equations provided in chapter 5.

Language requiring that the flow of mine gas from each methane source be monitored was removed from sections 6.5, 6.6, and 6.7 as there is no need to monitor the flow of mine gas from each methane source; rather it is the flow of mine gas sent to each destruction device that must be monitored. This requirement is included elsewhere in the text of these sections.

Modifications were made to sections 6.5, 6.6, and 6.7 to make clear that daily averages of methane concentration need not be calculated daily but rather can be calculated at a later date based on the recordings still taken every fifteen minutes.

Minor changes were made to tables 6.1-6.4 to correct erroneous mistakes and ensure consistency throughout the protocol. Changes included the terms' naming conventions, definitions, and units. Monitoring parameters were removed and added to table 6.1 based on modifications to the calculation of non-oxidized methane described above. Parameters were removed from table 6.3 as they are calculated from other terms rather than monitored directly. Parameters were removed from table 6.4 to reflect the deletion of equation 5.45 detailed above. Parameters were added to table 6.4 to include terms from equation 5.50 which were inadvertently left off of the table.

Language was added to section 6.7(f) to include measured data of natural gas seeps when deriving mine-specific hyperbolic emission rate decline curve coefficients as a result of the change made to section 5.4.1(u) detailed above.

## Chapter 7. Reporting

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol.

The requirement that the mailing address of the surface owner(s), if different from the mine owner, be reported at time of listing was removed from section 7.1(b)(87) in response to privacy concerns. The requirement to list any mine methane destruction programs that the mine owner or operator has previously participated in, formerly section 7.1(b)(38), has been removed. This clause did not serve a purpose as it had no bearing on the assessment of additionality or the determination of whether destruction devices are qualifying or non-qualifying.

The requirements for the map to be provided at time of listing per section 7.1(b)(34) were revamped to allow much of the information to be provided in a diagram instead, with requirements detailed in sections 7.1(b)(35) and 7.1(b)(36). In addition to minor, non-substantive changes to the protocol language, the following substantive changes were made: 1) the diagram is now only required to represent shafts, wells, and boreholes that are part of the project; 2) to assist in determining the eligibility, a requirement was added to indicate whether or not a shaft, well, or borehole was connected to a non-qualifying destruction device in the year prior to offset project commencement; and 3) the operation date of a destruction device is now required rather than the installation date as it is the operation date that is used to determine whether the device is qualifying or non-qualifying.

Former section 7.1(b)(40) was removed because of concerns pertaining to confidentiality of this sensitive business information. Removal of this requirement in no way impacts the ability to determine the eligibility of mine methane capture and destruction activities nor the verification of the emission reductions achieved by the project.

Requirements to provide mine plans, mine ventilation plans, and mine maps were removed from the listing section, formerly 7.1(b)(27), and 7.1(b)(29), and from the Offset Project Data Report section, formerly section 7.2(b)(15) and relocated to chapter 8 requiring these documents be provided during verification upon the request of the offset project verifiers.

A requirement to provide the ARB project ID number was added to section 7.2(b). Some information was removed from the Offset Project Data Report requirements as it was static information that would have been previously provided at the time of project listing.

The requirements for reporting data, formerly sections 7.2(b)(16) through 7.2(b)(23) were revamped and detailed in new sections 7.2(b)(13)-(16) through 7.2(b)(16). In addition to minor, non-substantive changes to the protocol language, the parameters that must be reported have been expanded to improve transparency.

## **Chapter 8. Verification**

Section 8(c) has been added requiring that the Offset Project Operator or Authorized Project Designee make certain documents available to the verifier upon request. These documents include those that were removed from chapters 6 and 7 as detailed above.

## **Appendix A. Emission Factors**

Minor, non-substantive changes were made to the chapter to correct grammatical mistakes. The sources of the data contained in table A.1 and A.2 were added to improve clarity. Data contained in the last column of table A.2 was corrected for accuracy based on the conversion rate of 1 metric ton = 2,204.62 lbs.

## **Appendix B. Device Destruction Efficiencies**

Minor, non-substantive changes were made to the chapter to correct grammatical mistakes.

## **Appendix C. Data Substitution Methodology**

Minor, non-substantive changes were made to the chapter to ensure consistency throughout the protocol. Language was added to the substitution methodology to stipulate that it is data from the normal operation prior to an outage that must be used.

### Additional Documents Added to the Record

In the interest of completeness, staff has also added to the rulemaking record and invites comments on the following additional documents:

- The Mine Methane Capture Protocol and Mining Economics
- Appendix A Product-based Benchmark Development
- GE AES Greenhouse Gas Services. *Methodology for Landfill Gas Methane Capture and Destruction Projects, Version 1.1*. November 2008.
- Intergovernmental Panel on Climate Change. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3, Reference Manual*. 1997 <http://www.ipcc-nggip.iges.or.jp/public/gl/invs6.html>
- Ruby Canyon Engineering. "Subject: California Air Resources Board: Proposed Compliance Offset Protocol Mine Methane Capture Projects, dated August 19, 2013." Letter from Ronald C. Collings to Jessica Bede. 22 October 2013.

- U.S. Environmental Protection Agency. Mandatory Reporting of Greenhouse Gases (Title 40, Code of Federal Regulations, Part 98, Subpart C). 2013. [http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/subpart\\_c\\_rule\\_part98.pdf](http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/subpart_c_rule_part98.pdf)
- U.S. EPA eGRID2012, Version 1.0 Year 2009 GHG Annual Output Emission Rates. April 2012. [http://www.epa.gov/cleanenergy/documents/egridzips/eGRID2012V1\\_0\\_year09\\_SummaryTables.pdf](http://www.epa.gov/cleanenergy/documents/egridzips/eGRID2012V1_0_year09_SummaryTables.pdf)

#### Additional Documents Incorporated by Reference

Staff is also proposing to incorporate by reference the following documents:

- California Energy Commission. *Guidelines for California's Solar Electric Incentive Programs Pursuant To Senate Bill 1*. First Edition. December 2007. CEC-300-2007-012-CMF.
- California Energy Commission. *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1)*. Second Edition. December 2008. CEC-300-2008-007-CMF.
- California Energy Commission. *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1)*. Third Edition. June 2010. CEC-300-2010-004-CMF.
- California Energy Commission. *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1)*. Fourth Edition. July 2011. CEC-300-2011-005-CMF.
- California Energy Commission. *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1)*. Fifth Edition. January 2013. CEC-300-2012-008-ED5-CMF.

**Comparable Federal Regulations:** There are no federal regulations comparable to the Cap-and-Trade Regulation.

**Changes to Underlying Laws:** There have been no changes to the statutory authority governing adoption of this regulation.

**Changes to the Effect of the Regulation:** None.