

California Environmental Protection Agency
Air Resources Board

California Regulation for the
 Mandatory Reporting of Greenhouse Gas Emissions

2012 GHG Reporting
 Subarticle 5: Petroleum and Natural Gas Systems

February 20, 2013
 Presentation Slides Available Here:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance-training.htm>

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Outline

- Key Reporting Dates
- Rule Applicability: Effective Dates
- Subarticle 5 (Subpart W) Petroleum and Natural Gas Systems
 - Implementation of 2012 revisions
 - Emissions
 - Product data
 - Additional data to support cap-and-trade
- Resources
 - Reporting guidance
 - *Cal e-GGRT*- training, registration, help
- Q&A

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Key Reporting Dates

Date	Activity
February 1	Regulatory deadline: Due date for electric power entities to register specified facilities outside California
February 13	Public release of Cal e-GGRT
April 10	Regulatory deadline: Reporting deadline for facilities and suppliers of fuels and carbon dioxide, except when subject to abbreviated reporting
June 3	Regulatory deadline: Reporting deadline for electric power entities and those subject to abbreviated reporting
July 15	Regulatory deadline: Deadline for corrections to RPS Adjustment data required for electric power entity data reports
September 3	Regulatory deadline: Final verification statements due (emissions data and product data)

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Implementation of 2012 Revisions to Subarticle 5

- Revisions applying to reporting of 2012 data in 2013
 - ARB incorporations of existing USEPA requirements
 - Clarifications to existing methods
 - Voluntary reporting requirements
- Revisions applying to reporting of 2013 data in 2014
 - Fugitive emissions added to > 25,000 MTCO₂e applicability threshold
 - New reporting methodologies
 - New reporting requirements

❖ Note that new methods/requirements may be used for 2012 data reported in 2013, if data is available

For additional guidance:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance-docs.htm>

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Subpart W – Reporting for New Methods

- Flexible implementation (2013/2014)
 - Intermittent bleed devices
 - New acid gas removal method
 - New blowdown reporting requirements
 - Produced water, crude oil, and condensate
- Effective for 2012 data reported in 2013
 - Best Available Monitoring Methods (BAMM)
 - Voluntary reporting of product data
 - Dry Gas
 - Natural Gas Liquids
 - Associated Gas

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Determining Facility Basin

- The basin boundaries for California are outlined in a copyrighted USGS map.
- ARB staff has added a table to guidance that lists the California counties in each basin boundary
- The table is located here:
http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance_subpart_w.htm

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Onshore Production Storage Tanks

- Onshore petroleum and natural gas production facilities are required to report emissions from “*onshore production and storage tanks*”. (95152(c)(8))
 - With the addition of the Crude Oil, Condensate, and Produced Water Dissolved CO₂ and CH₄ (95153(v)), emissions from onshore production tanks are reported based on the results of a flash liberation test, thus fulfilling the requirement in 95152(c)(8).

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Equipment and Pipeline Blowdowns

- Acceptable methods for determining input variables for section 95153(g), required for all reporters:
 - N= number of blowdowns – maintain a list
 - T_a = temp at actual conditions – System Control and Data Acquisition(SCADA), thermometer
 - P_a = pressure at actual conditions – SCADA, engineering estimate
 - Use the most accurate data available

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Compressor Leak Measurement: Safety Concerns

- Monitoring and QA/QC requirements are in section 95154(a)(4)
- Reporting facilities are directed to use an optical gas imaging device “for all sources that are inaccessible and cannot be monitored...”
 - This includes safety concerns when sampling compressor emissions exhibiting high H₂S levels.
 - Use this provision to quantify emissions without exposing personnel to hazardous conditions.

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Leak Survey Timing

- Timing of leak surveys is consistent with US EPA guidance and applies to natural gas distribution (section 95153(o)(8)(A).
- Over a five-year period, an equal proportion of sampling is not necessary, just complete sampling over the five-year period.

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Crude Oil, Condensate and Produced Water Dissolved CO₂ and CH₄

- Must sample prior to the point where liquids exit the separator and flash to atmospheric pressure.
- A temporary, portable separator may be used in cases where produced liquids do not routinely pass through a separator.
- Where total number of tanks makes sampling each stream prohibitively expensive, reporters may design a sampling plan that insures a representative number of samples are gathered to accurately quantify these emissions.

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Use of Common Pipe Measurement

- Section 95153(y)(2)(A) indicates that ‘company records’ may be used to determine combustion emissions for non-pipeline quality natural gas.
- For purposes of this regulation, ‘company records’ includes common pipe measurements.
- For disaggregating unit level emissions, please follow the unit aggregation guidance: http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/unit_aggregation.pdf

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Use of Best Available Monitoring Methods (BAMM)

- 2012 emissions data reported in 2013 for Subpart W only:
 - Reporting entities may use BAMM for data inputs listed in Sections 95154(f)(1) through (f)(4).
- 2013 emissions data reported in 2014 may no longer use BAMM for emissions data listed in 95154(f)(1) – (f)(4).

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Verification of Reported Activity Data

- All Subpart W reporters are required to report Activity Data as detailed in section 95157.
- The Activity Data reported under Section 95157 must be verified for conformance by the third-party verification body
- Reporters should use best available data (e.g. company records, engineering calculations) to apportion combustion emissions to the process and unit level where required in section 95157.

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Questions?

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Reporting Product Data

- Reporting requirements – section 95156
- Covered product data is defined in MRR, with categories listed in Table 9.1 in the Cap-and-Trade Regulation and applies to:
 - Crude oil (thermal and other than thermal)
 - Associated gas (thermal and other than thermal)
 - Natural gas liquids
- Dry gas is not a covered product data and should only be checked during verification for conformance

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Reporting Covered Product Data for 2012

- Crude oil is required for 2012 data reported in 2013
- Associated gas and natural gas liquids are voluntary for 2012 data

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Petroleum and Natural Gas Systems Product Data XML Workbook Updates

- Onshore Production tab contains new columns
 - Refer to the product data reporting guidance for specifics
 - Evaluation for conformance on new fields
 - Evaluation for conformance and material misstatement if voluntary information is reported
- New tab: Natural Gas Liquid Processing or Natural Gas Liquid Fractionating facility (NGL)

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2011 Product Data

- The reporting guidance gives step-by-step instructions to fill out the 2011 Product Data workbook.
- 2011 data voluntarily reported in 2013 will not be used for determining an entity's allowance allocation

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Product Data Upload Workbooks

- Updated workbooks are in the reporting tool
 - 2011 Product Data spreadsheet is separate from the 2012 xml upload file.
- Upload Workbooks and Guidance are available here:
 - <http://www.ccdsupport.com/confluence/display/calhelp/Reporting+Form+Instructions>

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Associated Gas Reporting

- Associated gas includes gases that are produced in association with crude oil production.
- Associated gas is considered a covered product data and must meet the metering and accuracy requirements of section 95103(k).
- ARB staff is working to ensure associated gas is reported consistently
- ARB staff will release guidance on the reporting and subsequent verification requirements for associated gas

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Associated Gas Discussion

- What do reporters consider 'associated gas'?
- Are there metering and accuracy issues with reporting associated gas?
- What are the perceived verification impediments?

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Additional Training

- ARB sector-specific training (see link for times)
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
 - February 21 – Fuel Suppliers: Transportation, NG, etc.
 - February 28 – Refinery Product Data
 - Mid-April – Electric Power Entities
- Contact ARB staff as needed for questions: ghgreport@arb.ca.gov

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GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	<u>Dave Edwards</u> , Manager 916.323.4887
Reporting Requirements, Stationary Combustion, Other Sectors (cement, glass, pulp and paper, etc.)	<u>Patrick Gaffney</u> 916.322.7303
Reporting Tool Registration and General Questions	<u>Karen Lutter</u> 916.322.8620
Electricity Generation and Cogeneration Facilities	<u>Anny Huang</u> 916.323.8475
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Fuel and CO ₂ Suppliers - Transportation Fuels, Natural Gas, LPG, CO ₂	<u>Syd Partridge</u> 916.445.4292
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Resources

- Reporting Guidance: Applicability, Metering, Product Data
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Tool Training: Registration, Subparts
<http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
- Cal e-GGRT Main Help Page
<http://www.ccdsupport.com/confluence/display/calhelp/Home>
- U.S. EPA Detailed Sector Training Slides
<http://www.epa.gov/climatechange/emissions/training.html>
(use as a supplement to ARB summary slides)

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