

Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

GHG Reporting Kickoff For 2016 Data

February 15, 2017

Presentation slides available here:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance-training.htm>

2015 Data Reporting Recap

- 804 reports submitted
- 516 verified
 - 99+% received positive or qualified positive emissions verification statements
 - Other reports not subject to verification (i.e., abbreviated reporters or retail providers with no imports/exports)
- 2015 summary data posted for all reports here:
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm>

Outline

- Overview
- General Reporting and Verification Information
- Cal e-GGRT Reporting Tool Updates
- Updates to Guidance Documents
- Questions

This webinar focuses on facility and fuel supplier reporting

A separate webinar will be held for Electric Power Entities during March 2017

There are no changes to SF₆ reporting for 2016 data

Reporting Schedule

- April 10, 2017
 - Reports due for facilities and suppliers
- June 1, 2017
 - Reports due for EPEs and electricity retail providers
 - Reports due for abbreviated reporters (suppliers do not qualify for abbreviated reporting)
- Failure to submit a report by the required deadline is a violation of the regulation for each day the report is late
 - **No time extensions**
- Key Dates Reference Page:
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>

Verification Schedule

- Must be completed by September 1, 2017
 - Verification statements due for all emissions and product data
 - **No time extensions**
- Begin contracting and submit COI as soon as possible; do not wait until reporting is completed
- Verifiers must submit an adverse statement if verification is not completed on time
- Failure to have a verification statement(s) submitted by the verification deadline is a violation of the regulation for each day the verification statement is late

General Reporting and Verification Information

Enforcement Summary

- Issues that could lead to enforcement
 - Incorrect data submitted
 - Errors leading to a material misstatement (includes errors present at the reporting or the verification deadlines)
 - Failure to fix correctable errors
 - Late reports or failure to report
 - Late verification or no verification
- ARB has completed enforcement actions related to reporting
- As completed, case settlements are posted here:
<http://www.arb.ca.gov/enf/casesett/casesett.htm>

Cal e-GGRT Tool Availability



- Tool available **NOW** and activated for 2016 data reporting
- Cal e-GGRT release automatically migrates 2015 data to 2016 reports
- Electric Power Entity module will be activated in early March

Reporting Tips

- Begin now! – Compile and enter your data
- Involve verifier as soon as possible
 - Allow time to revise data based on verification
 - If at the 6-year time limit with the same verification body, must hire a new verifier
 - Complete and accurate data must be submitted by the reporting deadline
- Update DR, ADR, Agents as needed
 - Old employees, etc., have access to system until you remove them
- Contact ARB for any questions about requirements (ghgreport@arb.ca.gov)
 - Save and file any ARB responses as part of your GHG Monitoring Plan
- Check ARB guidance: <http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>

Verification Process Timing (1)

- Earlier submissions of Conflict of Interest (COI) self-evaluations
 - Entities made progress in 2015, but earlier submissions are still needed
 - Submit as soon as possible –COI can be submitted prior to report submission
- Schedule site visits early to address issues more quickly
 - In 2016, over a quarter of site visits not conducted until July or August
 - Conducting site visits in August should be avoided

| Total 2011-2014 Data Years (%) | | | | | | |
|--------------------------------|-------|-------|-----|------|------|-----|
| | March | April | May | June | July | Aug |
| COI Submittals | 1% | 16% | 33% | 25% | 19% | 6% |
| Site Visits | 0% | 4% | 14% | 32% | 36% | 14% |
| Total 2015 Data Year (%) | | | | | | |
| COI Submittals | 20% | 35% | 22% | 15% | 7% | 1% |
| Site Visits | 0% | 10% | 26% | 35% | 21% | 6% |

Verification Tips for Reporters

- Correctable errors must be fixed
 - If not, verifier must submit adverse statement
- “Covered emissions” and “covered product data” must meet accuracy requirements and be reasonably assured of no material misstatement
- If verifier and reporter disagree on requirements, always contact ARB for assistance
- Ensure GHG monitoring plan meets the requirements of section 95105(c) and includes any additional helpful information for your verifier
 - Robust GHG monitoring plans facilitate verification
 - Include all ARB written clarifications regarding reporting in the GHG monitoring plan

Verification Process Timing (2)

- Reporters can streamline verification by:
 - Ensuring executed verifier contract and COI submittal to ARB prior to report submission
 - Providing data to verifiers ASAP after report submission
 - Scheduling site visits in April and May for suppliers and facility operators, and June for EPEs
- Plan ahead to address your questions, such as meter accuracy and metering questions, to avoid last minute regulation interpretations by ARB
- Reporters and verifiers should work together to facilitate earlier submission of verification statements

Some Recurring Reporting Issues

- If tool emissions calculations are overridden, confirm that entered Fuel x HHV x EF = Entered Emissions
 - We are seeing some units and conversion inconsistencies
- For cogeneration, validate that total thermal and electrical output is theoretically possible (it should not exceed the MMBtu of fuel inputs)
- If reporting biomass fuels, do not include any fossil fuels in exempt biogenic CO₂ data entry fields

ANNUAL BIOGENIC CO₂ FOR ALL FUELS

Do NOT report fossil fuel CO₂ emissions, such as from natural gas combustion, here.
Only report the CO₂ from combustion of biogenic fuels such as wood waste, agricultural waste, biomethane, the biogenic fraction of mixed fuels, etc.

Total exempt annual biogenic CO₂ mass emissions (must equal the sum of calculated annual exempt biogenic CO₂)

0 (metric tons)

Reporting of Natural Gas Received and Customer Deliveries

- To support ARB covered emissions calculations for natural gas suppliers, ensure the following information is correctly reported per MRR and ARB guidance:
 - Facility natural gas purchase/acquisition data pursuant to 95115(k):
 - Report the natural gas **supplier** (e.g. the utility or pipeline operator that physically delivers gas to your facility). This is often not the company the gas is purchased from (**marketer**)
 - Check the "interstate pipeline" option if gas is received from a direct connection to an interstate pipeline
 - Natural gas supplier customer delivery data pursuant to 95122(d)(2)(E)
 - Ensure all of a facility's individual customer accounts are reported in the delivery information

Global Warming Potentials and Emission Factors for 2016

- Continue using the same global warming potentials (GWPs) and emission factors (EFs) that were used for 2011-2015 data
- ARB has not adopted the most recent U.S. EPA GWPs and EFs required for U.S. EPA reporting
- ARB regulation refers to 2009 and 2010 versions of U.S. EPA rule (§95100(c))
 - Available here: <http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-regulation.htm>

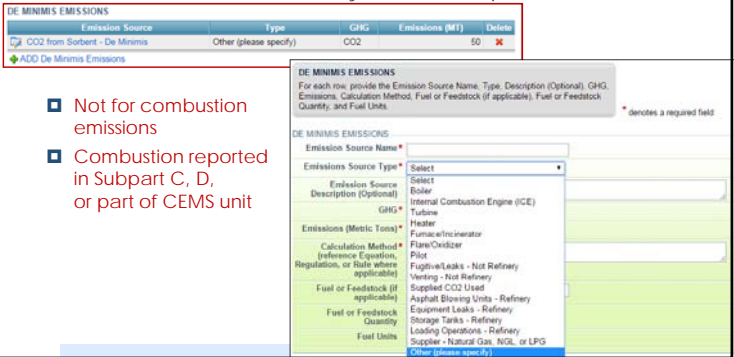
Cessation of Reporting and Verification

- Reporting entities must notify ARB if they are no longer subject to reporting
 - Notify by March 31 of the year following shutdown or following the third consecutive year of emissions less than 10,000 MTCO₂e
 - See section 95101(h) of MRR for cessation requirements
- Reporting entities must notify ARB if they are no longer subject to verification per requirements in section 95101(i)
 - Notify by the applicable reporting deadline
 - Information is also provided to Cap-and-Trade Program to assist in program implementation
 - Verification is always required if subject to Cap-and-Trade Regulation

Cal e-GGRT Reporting Tool Updates

De Minimis – Reporting (2)

- Typical new de minimis entry screens
 - Located within main data entry screen for subparts



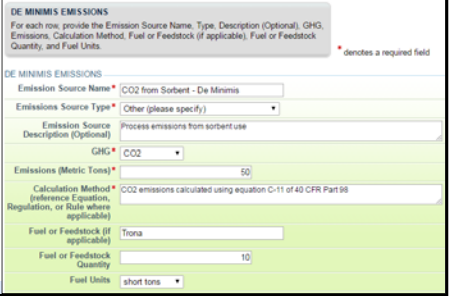
- Not for combustion emissions
- Combustion reported in Subpart C, D, or part of CEMS unit

De Minimis – Reporting (1)

- The de minimis workbook had been deleted from Subpart A of Cal e-GGRT
- All combustion emissions (including de minimis) are still reported in Subparts C or D
- Other de minimis emissions are now reported within individual subparts
- New de minimis functionality was added to subparts:
 - H (cement), N (glass production), NN (fuel suppliers), and Y (refineries)
 - De minimis reporting already exists in Subparts C, D, and W
 - Other sectors not reporting de minimis emissions

De Minimis – Reporting (3)

- Enter de minimis source and emissions information
 - Create de minimis records and enter data
 - De minimis data included in subpart and facility roll-ups
 - Based on "Source Type" system identifies emissions data as covered or exempt under Cap-and-Trade
 - Included in covered emissions total as appropriate



De Minimis - Example

- Refinery example – multiple sources
 - System identifies *covered* and *exempt covered* emissions based on “Type” of de minimis source selected
 - Any de minimis emissions source with a type of “Other (please specify)” are assigned as covered emissions by the tool
 - All combustion emissions are still reported in Subpart C

| DE MINIMIS EMISSIONS | | | | |
|----------------------------|----------------------------------|-----|----------------|--------|
| Emission Source | Type | GHG | Emissions (MT) | Delete |
| Supplied CO2 | Supplied CO2 Used | CO2 | 100 | ✖ |
| Asphalt | Asphalt Blowing Units - Refinery | CH4 | 10 | ✖ |
| Leaks | Equipment Leaks - Refinery | N2O | 10 | ✖ |
| Tanks | Storage Tanks - Refinery | CH4 | 10 | ✖ |
| Loading Operations | Loading Operations - Refinery | N2O | 1 | ✖ |
| SRU | Other (please specify) | N2O | 10 | ✖ |
| + ADD De Minimis Emissions | | | | |

Fee Regulation Reporting for Merchant Hydrogen Plants

- ARB has included a data entry field to be used for reporting refinery fuel gas for merchant hydrogen facilities: for Cost of Implementation Fee Regulation reporting only
 - Reporters should use the new field to separately report CO₂e from refinery fuel gas combustion, **excluding** all pipeline quality natural gas for COI Fee Regulation
 - Located in Subpart P Other Info section

COST OF IMPLEMENTATION (COI) FEES DATA: REFINERY FUEL GAS [SECTION 95204(F)(5) - COI REGULATION]

For Merchant Hydrogen facilities only, enter the CO₂e emissions for all refinery fuel gas combusted or consumed at the facility. Do not include emissions from pipeline quality natural gas combustion (see section 95204(f)(5) for removing the natural gas). The emissions entered in this field are not included in any facility total emissions and are only used for fees calculations. Therefore, all combustion emissions must also be reported in Subpart C.

Refineries with integrated hydrogen production do not complete this section and should leave it blank. For refineries, the COI refinery fuel gas facility emissions are entered in the Subpart Y Additional Production Data and Solomon energy intensity index workbook.

Emissions from Refinery Fuel Gas Combusted or Consumed On-Site for Merchant Hydrogen Facility (excluding natural gas) (metric tons CO₂e) **

*Merchant hydrogen facilities only; not to be completed by refineries
** Emissions value is NOT included in emissions totals for GHG report; COI use only

De Minimis - CEMS

- For any CEMS reporting, de minimis reporting must be performed within the CEMS configuration
 - Designate emissions as de minimis within the fuel records
 - The de minimis workbook has been removed from the system
- This applies to Cement Production, Refineries, Hydrogen, and other CEMS users
- For review only – not a tool change

EQUATION C-10 SUMMARY AND RESULTS

Equation C-10 $CH_4 \text{ or } N_2O = 0.001 \times (F \times EF) \times EF$

Hover over an element in the equation above to reveal a definition of that element.

| Emission Type | (M) (mmBtu) | EF | Calculated Result (metric tons) | Metric Tons of CO ₂ e |
|------------------|-------------|--------|---------------------------------|----------------------------------|
| CH ₄ | 50,000 | 0.011 | 0.55 | 11.5 |
| N ₂ O | 50,000 | 0.0016 | 0.080 | 24.5 |

What CH₄ result do you want to report to CARB?
 Use the calculated result rounded
 Enter my own result (value will be rounded)
 Claimed as de minimis (do not report elsewhere)

Use this checkbox to claim the CH₄ result being reported to CARB as de minimis.

What N₂O result do you want to report to CARB?
 Use the calculated result rounded
 Enter my own result (value will be rounded)
 Claimed as de minimis (do not report elsewhere)

Use this checkbox to claim the N₂O result being reported to CARB as de minimis.

Hydrogen Sold or Transferred

- Optional fields added to allow for separate reporting of gaseous and liquid hydrogen sold or transferred
- Needed for LCFS program
 - Total quantity provided is required
 - Gas/liquid splits are optional

Hydrogen Sold or Otherwise Transferred to Another Facility [95114(J)]

| Purchaser or Receiver of Hydrogen [REQUIRED] | ARB ID (if available) | Annual Quantity of Total Gaseous and Liquid Hydrogen Sold or Transferred (MT) [REQUIRED] | Annual Quantity of Gaseous Hydrogen Sold or Transferred (MT) [Optional] | Annual Quantity of Liquid Hydrogen Sold or Transferred (MT) [Optional] | Delete |
|--|-----------------------|--|---|--|--------|
| | | | | | ✖ |
| + Add a row | | | | | |

Updates to Guidance Documents

Resources

- Email reporting questions to: ghgreport@arb.ca.gov
- Reporting Guidance
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Cal e-GGRT Tool Training
<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>
- Accredited Verification Bodies
<https://www.arb.ca.gov/cc/reporting/ghg-ver/ghg-ver.htm>

Guidance Document Updates

- Relatively minor updates for 2017
- Clarifications for hydrogen facilities reporting refinery fuel gas under the Fee Regulation and reporting gas/liquid hydrogen sold or provided under MRR
- Clarifications for measurement accuracy and missing data based on reporter and verifier questions in 2016
 - Changes also reflected in the biomass-derived fuels guidance document
- Minor clarifications for product data reporting
- Documents available here:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>

Key Reporting Dates

| Date | Activity |
|--------------------|---|
| January 24 | Public release of Cal e-GGRT for 2016 Data Reporting |
| April 10 | Regulatory deadline: Reporting deadline for facilities, except when subject to abbreviated reporting, and suppliers of fuels and carbon dioxide |
| June 1 | Regulatory deadline: Reporting deadline for electric power entities and those subject to abbreviated reporting |
| September 1 | Regulatory deadline: Verification statements due (emissions data and product data) |

GHG Reporting Contacts

| Subject Matter | Contact |
|--|---|
| Manager – Climate Change Reporting Section | Brieanne Aguila , Manager 916.324.0919 |
| General Reporting Requirements, Stationary Combustion, Electricity Generation and Cogen, Miscellaneous Sectors, Cal e-GGRI Reporting | Patrick Gaffney 916.322.7303 |
| Reporting Tool Registration and General Questions | Karen Lutter 916.322.8620 |
| Electricity Retail Providers and Electricity Marketers | Wade McCartney 916.327.0822 |
| Fuel and CO ₂ Suppliers - Transportation Fuels, Natural Gas, LPG, CO ₂ | Syd Partridge 916.445.4292 |
| Petroleum Refineries, Hydrogen Plants, Oil & Gas Production, and Associated Product Data | John Swanson 916.323.3076 |
| Manager – Greenhouse Gas Verification Section | Ryan Schauland , Manager 916.324.1847 |
| Chief – Program Planning and Monitoring Branch | Jim Aguila , Chief 916.322.8283 |