

California Regulation for the  
Mandatory Reporting of Greenhouse Gas Emissions

# **GHG Reporting Kickoff for 2013 Data**

Regulation Changes, De Minimis, Product Data,  
Electricity and Thermal Disposition, Others

March 13, 2014

Presentation Slides Available Here:

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

# Outline

- Overview of 2012 Data Reported in 2013
- Regulation Updates
- Preparing for 2013 Data Reporting
- Cal e-GGRT Reporting Tool
- Resources
- Questions

# 2012 Data Reporting Recap

- 713 reports submitted
- 491 subject to verification
  - 99% received positive emissions verification statements
  - 1 report received adverse statement
- Summary data posted for all reports
  - [http://www.arb.ca.gov/cc/reporting/ghg-rep/reported\\_data/ghg-reports.htm](http://www.arb.ca.gov/cc/reporting/ghg-rep/reported_data/ghg-reports.htm)

# Enforcement Summary

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

# **Updates to the Regulation for 2013 Data Reporting**

# Regulation Updates

- Revisions went into effect January 1, 2014
- Regulation available here:  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/mrr-regulation.htm>
- Most updates are effective for 2013 data reporting (see section 95103(h))
  - Provisions requiring new data or methods are effective for 2014 data reporting or 2013, using best available methods for data
- See “Applicability of 2013 Revisions” guidance spreadsheet
  - Lists all regulation changes and when they become effective
  - Good reference for identifying areas with revisions

# Applicability of 2013 Revisions

- Excerpt of guidance spreadsheet
- <http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance-docs.htm>

**Guidance for California's Mandatory Greenhouse Gas Emissions Reporting**  
2/7/2014

California Environmental Protection Agency  
**Air Resources Board**

**Revisions to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions:  
Year of Implementation for 2013 Regulatory Amendments**

*\*Note: 2014 = 2013 data reported in 2014, 2015 = 2014 data reported in 2015, and 2014 BAM means Best Available Methods may be used for 2013 data.*

#	Regulation Amendment	Regulation Section	Description of the Regulatory Update	Year Provision is Effective* (2014/2015)	Affected Reporting Subpart
1	10k Threshold Clarification	95101(a)(1)(B)	Clarify CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O included for 10k threshold	2014	General
2	Lead Reporting	95101(a)(1)(B)8., 95124	Require calculation and reporting of process emissions by lead producers	2014 BAM	Subpart R - Lead Production
3	Include Additional Subparts	95101(a)(1)(G)	Explicitly identify additional subparts for applicability, if they come to California	2014	General
4	Common Control / Ownership	95101(a)(3)	Specifies requirements for changing responsibility from/to owner to/from operator	2014	General
5	Reporting Threshold and Abbreviated Reporting Limitation	95101(b)(1)-(2)	Clarify CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O included for threshold; disallow abbreviated if total >25k for a 10k facility	2014	General
6	Hydrogen Fuel Cell	95101(b)(6)	Fuel cell emissions must be included in applicability determination	2015	General
7	Operators of LNG Production Facilities	95101(c)(10)	Require reporting by operators of LNG facilities that produce LNG from NG from interstate pipelines	2015	Subpart NN - Natural Gas, NGL, LPG, CNG, LNG Suppliers

# Some General Regulation Updates

- Change of Ownership notification provisions
- Identifying emission increases or decreases
- Additional product data reporting for specified sectors (milk, tomatoes, etc.)
- Reporting of energy used for cooling energy production
- Emissions reporting for hydrogen fuel cells
- Changes specific to industry sectors will be discussed in sector-specific training
- Refer to regulation for all changes



# Global Warming Potentials and Emission Factors

- Use same global warming potentials (GWPs) and emission factors (EFs) as used for 2012 data
- 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>
- ARB did not adopt the most recent U.S. EPA GWPs and EFs, required for U.S. EPA reporting

# Reporting Schedule

- **NO time EXTENSIONS** will be granted
- April 10, 2014
  - Reports due for everyone except those listed for June 2
- June 2, 2014 (because June 1 is a Sunday)
  - Reports due for electricity retail providers and marketers
  - Reports due for abbreviated reporters (<25k)
- Failure to submit a report by the required deadline is a violation of the regulation for each day the report remains unsubmitted
- Key Dates Reference Page:  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>

# Verification Schedule

- **NO time EXTENSIONS** will be granted
- September 2, 2014 (because Sep. 1 is a holiday)
  - Final Verification Statements due for all emissions and product data
- Start early to ensure on-time completion
- Provide adequate time to correct any issues identified during verification
- Verifiers must submit **ADVERSE** statement if verification 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 remains unsubmitted

# Reporting GHG Data

# Cal e-GGRT Tool Availability



- Tool Active NOW
  - 2013 data reporting activated
- Existing 2012 data configurations were migrated to 2013 reports
  - Reduces setup workload
- Electric Power Entity module will be activated in April

# Reporting Tips

- Start early, finish early
- Involve verifier as soon as possible
- Plan enough time to make verification revisions
- Update DR, ADR, Agents if needed
  - They have access to system until you remove them
- Contact ARB for any questions about requirements ([ghgreport@arb.ca.gov](mailto: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>

# Reporting Tips

- Make sure to add natural gas and electricity purchases in Subpart A (required data)
- Fuel use must be entered even if using CEMS
- Review the unit aggregation requirements on guidance page
- Make sure you have a complete GHG Monitoring plan to avoid non-conformance
  - Must include all elements in §95105(c)(1-10)

# Verification Tips

- Correctable Errors must be fixed
  - If not, verifier must provide **adverse** verification
- “Covered Emissions” and “Covered Product Data” must meet accuracy requirements
- If verifier and reporter disagree on requirements, always contact ARB for assistance
- Maintain all ARB clarifications regarding reporting in GHG Monitoring Plan



# **Cal e-GGRT Data Entry for Updated Elements**

## Increases or Decreases in Facility Emissions (§95104(f))

- New requirement to identify if total reportable emissions increase or decrease by more than 5% in relation to previous data year
- Identify the reason for increase or decrease
- Describe reason for changes
- Information not subject to verification
- Used to support Adaptive Management program needs
- Not applicable for fuel suppliers or electric power entities

# Increases or Decreases in Facility Emissions (§95104(f))

- Report in Subpart A

INCREASES AND DECREASES IN FACILITY EMISSIONS [95104(f)]

Have facility emissions increased or decreased more than five percent in relation to the previous data year (requirement does not apply to fuel suppliers or electric power entities)?  Yes  No

Specify which of the following reason(s) would be the cause of the increase or decrease in greenhouse gas emissions:

Change in production

Changes in facility operations in order to comply with:

The cap-and-trade regulation

Other air pollution regulations

Other regulations, not related to air pollution or greenhouse gases

Changes in efficiency due to:

Process or material changes

The addition of control equipment

Other efficiency measures

Other reason(s) for increase or decrease

Provide a narrative description of how each reason identified in section 95104(f)(2) caused the increase or decrease in emissions. Include in this description any changes in your air permit status.

**Note: This section is not subject to the third-party verification requirements**

# Additional Product Data Reporting (§95115(n))

- Additional sectors included
- Report data in Subpart A
- Pulp and Paper product data also now reported in Subpart A, not Subpart AA

## ADDITIONAL PRODUCT INFORMATION

- ▶ Sheet steel producing facility [95115(m)(1)]
- ▶ Soda ash producing facility [95115(m)(2)]
- ▶ Gypsum producing facility [95115(m)(3)]
- ▶ Turbine and turbine generator set testing facility [95115(m)(4)]
- ▶ Poultry processing facility [95115(m)(5)]
- ▶ Dehydrated flavor manufacturing facility [95115(m)(6)]
- ▶ Beer brewing facility [95115(m)(7)]
- ▼ Snack food manufacturing facility [95115(m)(8)]
  - Annual quantity of fried potato chips (covered product data)  (short tons)
  - Annual quantity of baked potato chips (covered product data)  (short tons)
  - Annual quantity of corn chips (covered product data)  (short tons)
  - Annual quantity of corn curls (covered product data)  (short tons)
  - Annual quantity of pretzels (covered product data)  (short tons)
- ▶ Sugar manufacturing facility [95115(m)(9)]
- ▶ Tomato processing facility [95115(m)(10)]
- ▶ Pipe foundry [95115(m)(11)]
- ▶ Aluminum billets producing facility [95115(m)(12)]
- ▶ Mining or rare earth mineral processing facility [95115(m)(13)]
- ▶ Diatomaceous earth mining or processing facility [95115(m)(14)]
- ▶ Performing forging facility [95115(m)(15)]
- ▶ Dairy product facility [95115(m)(16)]
- ▶ Almond or pistachio processing facility [95115(m)(17)]
- ▶ Wet corn milling facility [95115(m)(18)]
- ▶ Spirits manufacturing facility (C&T 95891)
- ▶ Pulp and paper manufacturing facility [95119(d)(1)]

- System confirms that disposition of generated electricity matches net generated electricity in Subparts C and D
- “Unit, System, or Group Name” is the name the generating facility uses for the unit/system

DISPOSITION OF GENERATED ELECTRICITY [95112(a)(4)]

+ Generated Electricity for Grid Disposition [95112(a)(4)(A)]

+ Generated Electricity for Other Users Disposition [95112(a)(4)(B)]

Generated electricity for on-site industrial applications not related to electricity generation [95112(a)(4)(C)]  MWh

DISPOSITION OF GENERATED ELECTRICITY FOR OTHER USERS

For each disposition of generated electricity, provide the name of the system or units generating the electricity, the end-user's name, ARB ID (if applicable), NAICS Code (if available), and the electricity provided or sold. If there is more than one unit/system, or different end-users or on-site uses, the electricity dispositions must be separately reported by unit/system, and the disposition of energy reported for each unit, system, or group of units.

\* denotes a required field

END-USER ELECTRICITY DISPOSITION

Unit, System, or Group Name *	<input type="text"/>
End-User Name *	<input type="text"/>
ARB ID (if applicable)	<input type="text"/>
NAICS Code	<input type="text"/>
Electricity Provided/Sold *	<input type="text"/> MWh

# Energy to Produce Cooling Energy

- Electricity Generation - Electricity used to produce cooling energy

PORTION OF GENERATED ELECTRICITY USED TO PRODUCE COOLING ENERGY FOR OTHER END-USERS OR FOR ON-SITE INDUSTRIAL PROCESS NOT IN SUPPORT OF THE POWER GENERATION SYSTEM [95112(a)(4)(C)1-2]

+ Portion of Generated Electricity used to Produce Cooling Energy For Other End-Users or For On-site Industrial Process Not in Support of the Power Generation System [95112(a)(4)(C)1-2]

- Cogeneration - Thermal energy used to produce cooling energy or distilled water

PORTION OF GENERATED THERMAL ENERGY USED TO PRODUCE COOLING ENERGY OR DISTILLED WATER FOR OTHER END-USERS OR FOR ON-SITE INDUSTRIAL PROCESS NOT IN SUPPORT OF THE POWER GENERATION SYSTEM [95112(a)(5)(C)1-2]

+ Portion of Generated Thermal Energy Used to Produce Cooling Energy or Distilled Water for Other End-Users or For On-Site Industrial Process not in support of the Power Generation System. [95112(a)(5)(C)1-2]

# Other Subpart A Additions

- Affects limited number of reporters

NATURAL GAS SUPPLIED TO DOWNSTREAM USERS OUTSIDE OF FACILITY BOUNDARY [95115(l)]

+ ADD Natural Gas Supplied

BIOMETHANE PURCHASES/ACQUISITIONS FOR REPORTING FACILITIES [95103(j)(3)]

+ ADD Biomethane Purchase/Acquisition

EXCLUDED INACCURATE PRODUCT DATA [95103(l)]

If any inaccurate product data was excluded from reporting as covered product data under section 95103(l), provide a description of the excluded data and an estimated magnitude of the excluded product(s) using best available methods. Excluded data are not used for material misstatement assessment or for determining the total covered product data.

# De Minimis Emissions Reporting

- **TOOL UPDATE:** All Stationary Combustion de minimis emissions are now reported in Subparts C or D
- Data can now be identified as de minimis within Subparts C or D
- The tool will not allow reporting of Subpart C or D emissions in the de minimis spreadsheet
- Provides more complete and consistent reporting for combustion sources
- De minimis emissions not associated with Subpart C or D sources are reported in Subpart A using the upload spreadsheet



# Reporting De Minimis Sources

- Within Subparts C or D
  - Use existing configurations
  - Or add new “De Minimis” configuration
  - Choice depends on existing reporting structure
- If de minimis was only used for N<sub>2</sub>O and CH<sub>4</sub> reporting (e.g., for CEMS) use existing configuration in subpart

# Reporting De Minimis Sources

- Use check boxes to claim items as de minimis
- De minimis emissions included in facility totals
- Identified as de minimis in reports
- Do not report in de minimis spreadsheet

## EQUATION C-1 SUMMARY AND RESULT

Equation C-1  $CO_2 = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$

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

Emission Type	Fuel (scf)	HHV (mmBtu/scf)	EF	Calculated Result (metric tons)
CO <sub>2</sub>			0.001028	53.02

What CO<sub>2</sub> result do you want to report to CARB?  
Use this checkbox to claim the CO<sub>2</sub> result being reported to CARB as de minimis.

Use the calculated result rounded  
 Enter my own result (value will be rounded)  
 Claimed as de minimis (do not report elsewhere)

## EQUATION C-8 SUMMARY AND RESULTS

Equation C-8  $CH_4 \text{ or } N_2O = 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF}$

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

Emission Type	Fuel (scf)	HHV (mmBtu/scf)	EF	Calculated Result (metric tons)	Metric Tons of CO <sub>2</sub> e
CH <sub>4</sub>			0.001028	0.001	
N <sub>2</sub> O			0.001028	0.0001	

What CH<sub>4</sub> result do you want to report to CARB?  
Use this checkbox to claim the CH<sub>4</sub> result being reported to CARB as de minimis.

Use the calculated result rounded  
 Enter my own result (value will be rounded)  
 Claimed as de minimis (do not report elsewhere)

What N<sub>2</sub>O result do you want to report to CARB?  
Use this checkbox to claim the N<sub>2</sub>O result being reported to

Use the calculated result rounded  
 Enter my own result (value will be rounded)  
 Claimed as de minimis (do not report elsewhere)

# Unit Disaggregation

- If multiple units are aggregated, fuel provided to each unit type must be identified
- In configuration setup for “Type of Emission Unit” select “More than one of the above”
  - This will display an item that allows for the entry of Fuels and Unit Types

Type of Emission Unit\* **More than one of the above**

for this Group [Note: EGU/EGS must always be separated from other unit types]

**PERCENT OF FUEL GROUPED INTO THIS CONFIGURATION ATTRIBUTED TO EACH UNIT TYPE**  
(If more than one unit types are aggregated into the group, the reporter is required to provide the following information (§95115(h))

Fuel	Type of Unit	Percent of Fuel	Delete
Natural Gas - Natural Gas (Weighted U.S. Average)	Boiler	40 %	✘
Natural Gas - Natural Gas (Weighted U.S. Average)	Process heater	60 %	✘

+ ADD Fuel and Unit Type

# “Urban Waste” Fuel Emission Factor and HHV Updated

- Emission factor and HHV for urban waste updated to match “Wood and Wood Residuals” and not “Municipal Solid Waste”
  - Consistent with ARB regulation
- For 2013 data reporting, to update the urban waste EF and HHV for your report
  - Delete urban waste fuel record from report
  - Add urban waste back to Cal e-GGRT report

Urban Waste Fuel	Emission Factor (MMBtu/short ton)	HHV (Kg CO2/MMBtu)
Updated Values	15.38	93.80
Old Values	9.95	90.7

# Missing Data and Unit Aggregation

- Missing Data Provisions: §95129
  - Apply when a required element is: Not collected, invalid, collected while the measurement device is not in compliance with the applicable quality-assurance requirements
- Unit Aggregation Provisions: §95115(h) and §95112(b)
  - Specifies which sources may be aggregated, and which sources must be individually reported
- Review 2012 data training slides (General GHG Reporting) and review guidance documents
  - <http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>

# Resources

# Additional Training Sessions

- ARB sector-specific training (check link for times)  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance-training.htm>
  - March 13 - General Information and Updates
  - March 13 - Petroleum and Natural Gas Systems
  - March 20 - Petroleum Refineries: Complexity Weighted Barrel
  - March 20 - Hydrogen Production: Product Data Reporting
  - March 20 - Fuel Suppliers: Transportation Fuels, Natural Gas, Others
- Contact ARB staff as needed for questions

# Resource Web Sites

- Email reporting questions to: [ghgreport@arb.ca.gov](mailto:ghgreport@arb.ca.gov)
- Reporting Guidance: Applicability, Metering  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Cal e-GGRT 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>



# 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
<b>April 10</b>	Regulatory deadline: Reporting deadline for facilities and suppliers of fuels and carbon dioxide, except when subject to abbreviated reporting
<b>June 2</b>	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
<b>September 2</b>	Regulatory deadline: Final verification statements due (emissions data and product data)

# GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	<a href="#">Patrick Gaffney</a> 916.322.7303
Reporting Requirements, Stationary Combustion, Other Sectors (cement, glass, pulp and paper, etc.)	<a href="#">Patrick Gaffney</a> 916.322.7303
Reporting Tool Registration and General Questions	<a href="#">Karen Lutter</a> 916.322.8620
Electricity Generation and Cogeneration Facilities	<a href="#">Patrick Gaffney</a> 916.322.7303
Electricity Retail Providers and Electricity Marketers	<a href="#">Wade McCartney</a> 916.327.0822
Fuel and CO <sub>2</sub> Suppliers - Transportation Fuels, Natural Gas, LPG, CO <sub>2</sub>	<a href="#">Syd Partridge</a> 916.445.4292
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production	<a href="#">Byard Mosher</a> 916.323.1185
Product Data – Refineries, and Oil & Gas	<a href="#">Byard Mosher</a> 916.323.1185
Greenhouse Gas Report Verification	<a href="#">Renee Lawver</a> , Manager 916.322.7062
Chief – Climate Change Program Evaluation Branch	<a href="#">Rajinder Sahota</a> , Chief 916.323-8503

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