

California Electronic Greenhouse Gas Reporting Tool

Reporting for Subpart Y

Petroleum Refineries

March 13, 2012


Presentation Slides Available Here:
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

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This training is provided by ARB solely for informational purposes. It does not provide legal advice and does not have legally binding effect. This training does not supplant, replace or amend any of the legal requirements in the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, sections 95100-95157. Conversely, any omission or truncation of regulatory requirements found within this training does not relieve any entity or person of their legal obligations to fully comply with all requirements of the regulation.


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Training Resources

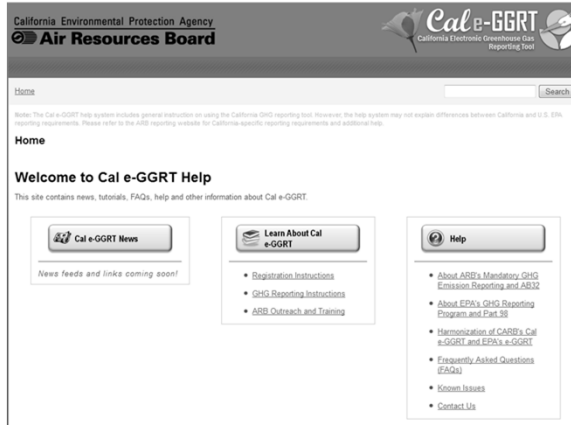
- Reporting Guidance: Applicability, Metering
<http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.htm>
- Tool Training: Registration, Subparts
<http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm>
- Cal e-GGRT Main Help Page
<http://www.ccdsupport.com/confluence/display/calhelp/Home>
- 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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Cal e-GGRT Help

<http://www.ccdsupport.com/confluence/display/calhelp/Home>



The screenshot shows the Cal e-GGRT Help website. At the top, it says "California Environmental Protection Agency Air Resources Board" and "Cal e-GGRT California Electronic Greenhouse Gas Reporting Tool". There is a search bar and a note about the help system. Below, it says "Welcome to Cal e-GGRT Help" and "This site contains news, tutorials, FAQs, help and other information about Cal e-GGRT." There are three main sections: "Cal e-GGRT News" (with a note "News feeds and links coming soon!"), "Learn About Cal e-GGRT" (with links for Registration Instructions, GHG Reporting Instructions, and ARB Outreach and Training), and "Help" (with links for About ARB's Mandatory GHG Emission Reporting and ARB, About EPA's GHG Reporting Program and Part 98, Harmonization of CARB's Cal e-GGRT and EPA's e-GGRT, Frequently Asked Questions (FAQs), Known Issues, and Contact Us).


FAQs - Glossary - Contact Us - ARB GHG Reporting 4



Subpart Y - Outline

- Define your Subpart Y reporting requirements.
- Register your facility in Cal e-GGRT.
- Calculate emissions using the Cal e-GGRT functionality.
- Report emissions using Cal e-GGRT.


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Subpart Y -Regulatory Basis for Reporting

Date	Action
10/30/2009	US EPA Final Rule Finalizes the mandatory reporting of 30 source categories for Reporting Year 2010. These comprise subparts: A, C, D, E, F, G, H, N, O, P, Q, R, S, U, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, LL, MM, NN, OO, and PP. Preamble and Rule (PDF) (261 pp, 2.6MB)
12/17/2010	US EPA Final Rule Corrects technical and editorial errors, and clarifies rule provisions for subparts C, D, E, F, G, H, K, N, O, P, Q, R, S, V, X, Y, Z, AA, BB, CC, EE, GG, HH, JJ, NN, OO and PP. Preamble and Rule (PDF) (81 pp, 667K) More information
1/1/2012	California Air Resources Board MRR Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, title 17, California Code of Regulations, Sections 95100-95157 http://www.arb.ca.gov/cc/reporting/ghg-rep/regulation/2010_regulation.htm


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What is Cal e-GGRT Used For?

- Cal e-GGRT is the system used to report all data required by the GHG mandatory reporting regulation.
- The tool contains modules for each sector required to report.
 - Also includes modules for Fee Regulation and SF₆
- Multiple users can be associated with a single facility or entity.
- Verifiers can be associated with facilities and entities in the tool for data review purposes.

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Overview of Cal e-GGRT Operation

- Registration – old and new reporters.
- Input required facility information.
- Adding subparts for reporting.
- Entering emissions data.
- Data reporting mechanisms.
 - Direct interface, XML spreadsheet uploads, spreadsheet attachments (varies by sector)
- Validation messages.

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Registration

- Need an ARB Registration Code to register in Cal e-GGRT
 - New reporters must request an ARB Registration Code prior to registration. Send an e-mail request to ghgreport@arb.ca.gov

March 1: Registration and System Overview
 A brief overview of registering in the new Cal e-GGRT system and overall system operation.
 Slides: [1-per-page \(color\)](#) [4-per-page \(B&W\)](#)
[Detailed Registration Instructions](#)

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Cal e-GGRT Tabs

Home tab

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Cal e-GGRT Tabs

Facility Management Tab

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Cal e-GGRT Tabs

Data Reporting Tab

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Reporting - Overview

- Configure your Facility-Level Emission Summary – add units as required.
- Report emissions for each applicable source.
 - 1) download applicable excel spreadsheet
 - 2) enter data
 - 3) save as XML
 - 4) upload xml file to Cal e-GGRT

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Reporting Emissions

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Reporting Emissions

REPORT DATA

2011 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information	View Messages	OPEN
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion	View Messages	OPEN
Section 95114 (Subpart P)—Hydrogen Production	View Messages	OPEN
Sections 95150-95157 (Subpart W)—Oil and Natural Gas Systems	View Messages	OPEN
Section 95113 (Subpart Y)—Petroleum Refineries	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO2)	View Messages	OPEN
ADD or REMOVE Subparts		

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
Patrick Equation C-2b (HVV) Calculation Spreadsheet.xls	C	Patrick Gaffney	March 9, 2012

SUBMIT ANNUAL REPORT

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date

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Reporting: Adding Subparts

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Reporting: Adding Subparts

- 95114 (Subpart P)—Hydrogen Production
Description (SHOW | HIDE)
- 95120 (Subpart Q)—Iron and Steel Production
Description (SHOW | HIDE)
- 95117 (Subpart S)—Lime Manufacturing
Description (SHOW | HIDE)
- 95118 (Subpart V)—Nitric Acid Production
Description (SHOW | HIDE)
- 95150.95157 (Subpart W)—Oil and Natural Gas Systems
Description (SHOW | HIDE)
- 95113 (Subpart Y)—Petroleum Refineries
Description (SHOW | HIDE)
- 95119 (Subpart AA)—Pulp and Paper Manufacturing
Description (SHOW | HIDE)

and Natural Gas Liquids
Description (SHOW | HIDE)

95123 (Subpart PP)—Suppliers of Carbon Dioxide
Description (SHOW | HIDE)

AB 32 COST OF IMPLEMENTATION FEE REGULATION

95201.95207—AB 32 Cost of Implementation Fee Regulation
Description (SHOW | HIDE)

SF6 GAS INSULATED SWITCHGEAR

95350.95359—SF6 Gas Insulated Switchgear
Description (SHOW | HIDE)

ELECTRIC POWER ENTITIES

95111—Electric Power Entities
Not currently available for selection
Description (SHOW | HIDE)

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Data Reporting

California Environmental Protection Agency
Air Resources Board

HOME FACILITY MANAGEMENT DATA REPORTING
Helo, Byard Mosher | My Profile | Logout

e-GGRT Greenhouse Gas Data Reporting
Select Facility

ANNUAL GHG DATA REPORTING
You must select a facility to begin using any Data Reporting features, which include Specifying which subparts the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to ARB.

REPORTING FACILITIES

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
999999	ARB Test Facility - TEST ONLY - Production Site (Sacramento, CA)	Not generated	<input type="button" value="OPEN"/>

FACILITIES NOT REPORTING IN 2011:

ARB ID	Facility or Supplier	Annual Report Status	Facility Overview
No facilities found.			

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Data Reporting

Open Subpart Y

REPORT DATA

2011 Reporting Source	Subpart Category	Validation Messages?	Subpart Reporting
Sections 95100-95108 (Subpart A)—General Information		View Messages	<input type="button" value="OPEN"/>
Sections 95115, 95112 (Subpart C)—Stationary Fuel Combustion		View Messages	<input type="button" value="OPEN"/>
Section 95112 (Subpart D)—Acid Rain Program EGU		View Messages	<input type="button" value="OPEN"/>
Sections 95150-95157 (Subpart W)—Oil and Natural Gas Systems		View Messages	<input type="button" value="OPEN"/>
Section 95113 (Subpart Y)—Petroleum Refineries		View Messages	<input type="button" value="OPEN"/>

ADD or REMOVE Subparts

SUBPART ATTACHMENTS

Uploaded File Name	Subpart	Uploaded By	Uploaded Date
No subpart attachments			

SUBMIT ANNUAL REPORT

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date
No reports found.				

VERIFICATION BODY

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Reporting Emissions & Product Data

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HOME FACILITY MANAGEMENT DATA REPORTING
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ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview

OVERVIEW OF SUBPART Y REPORTING REQUIREMENTS
Subpart Y requires affected facilities to report greenhouse gas (GHG) emissions from flares, catalytic cracking units, traditional fluid coking units, fluid coking units with flexcoking design, delayed coking units, catalytic reforming units, sulfur recovery units, coke calcining units, asphalt blowing, equipment leaks, storage tanks, uncontrolled blowdown systems, loading operations, process vents, and non-merchant hydrogen plants. For additional information about Subpart Y reporting, please use the Cal e-GGRT Help link(s) provided.

FACILITY LEVEL EMISSIONS SUMMARY

	CO ₂ (metric tons)	CH ₄ (metric tons)	Status ¹	
Uncontrolled Blowdown Systems	N/A		Incomplete	<input type="button" value="OPEN"/>
Equipment Leaks	N/A		Incomplete	<input type="button" value="OPEN"/>
Loading Operations	N/A		Incomplete	<input type="button" value="OPEN"/>
Storage Tanks	N/A		Incomplete	<input type="button" value="OPEN"/>
Sour Gas Sent Off-Site		N/A	Incomplete	<input type="button" value="OPEN"/>
Delayed Coking	N/A		Incomplete	<input type="button" value="OPEN"/>

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Reporting Emissions & Product Data (adding units)

DELAYED COKING UNITS

Unit Name/Identifier	Status*	Delete
Coking Unit	Complete	OPEN X

ADD a Delayed Coking Unit

ASPHALT BLOWING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	Status*	Delete
None entered				

ADD an Asphalt Blowing Unit

COKE CALCINING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status*	Delete
None entered					

ADD a Coke Calcining Unit

CATALYTIC CRACKING UNITS, TRADITIONAL FLUID COKING UNITS, FLUID COKING UNITS WITH FLEXCOKING DESIGN, AND CATALYTIC REFORMING UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status*	Delete
None entered					

ADD a Catalytic Cracking or Coking Unit

FLARES UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status*	Delete
None entered					

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Reporting Additional Data (product and Solomon index data)

FLARES UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status*	Delete
None entered					

ADD a Flare

PROCESS VENTS UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	CH ₄ (metric tons)	N ₂ O (metric tons)	Status*	Delete
None entered					

ADD a Process Vent

SULFUR RECOVERY UNITS EMISSIONS SUMMARY

Unit Name/Identifier	CO ₂ (metric tons)	Status*	Delete
None entered			

ADD a Sulfur Recovery Plant

ADDITIONAL PRODUCT DATA AND ENERGY EFFICIENCY INDEX (EEI)

Use the Additional Product Data and Solomon EEI spreadsheet to record the production amounts for each product produced by this facility. Upload the completed XML exported from the spreadsheet.

Additional Product Data and Solomon EEI Spreadsheet

Browse Upload

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Reporting Emission Data (facility level emissions)

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Cal e-GGRT
California Electronic Greenhouse Gas Reporting Tool

Home FACILITY MANAGEMENT DATA REPORTING

Cal e-GGRT Help

Using Cal e-GGRT for Subpart Y reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview » Uncontrolled Blowdown Systems » Choose Calculation Method

UNCONTROLLED BLOWDOWN SYSTEMS CALCULATION METHOD

Please indicate a methane (CH₄) calculation method for uncontrolled blowdown systems, if any. Blowdown systems where the uncondensed gas stream is routed to a flare or similar control device are considered to be controlled. For additional information about the data collected on this page, please use the Cal e-GGRT Help link(s) provided.

Select the appropriate option regarding this facility's uncontrolled blowdown systems

Use process vents method to estimate CH₄ emissions.
 Use equation Y-20 to estimate CH₄ emissions.
 This facility does not have any uncontrolled blowdown systems.

* denotes a required field

BACK CANCEL NEXT

Contact Us Cal e-GGRT RY2011.R.53 | Y20-0

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Reporting Emission Data (blowdown systems)

Cal e-GGRT Help

Using Cal e-GGRT for Subpart Y reporting

ARB Test Facility - TEST ONLY - Production Site (2011)
Section 95113 (Subpart Y): Petroleum Refineries
Subpart Overview » Uncontrolled Blowdown Systems » Eq. Y-20

GHG DATA AND ASSOCIATED INFORMATION

Use this page to enter the GHG data required by Subpart Y. For additional information about the data collected on this page, please use the Cal e-GGRT Help link(s) provided.

EQ. Y-20 CH₄ emissions (metric tons)

EQUATION Y-20 SUMMARY AND RESULT

$$CH_4 = (C_{ref} \times EF_{ED} \times \frac{16}{MVC} \times 0.001)$$

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

Use the equation Y-20 Calculation Spreadsheet to calculate the result. Upload the completed XML exported from the spreadsheet.

Equation Y-20 Calculation Spreadsheet

Browse Upload

Uploaded File Name	Attached By	Date	Delete
No files found.			

Basis for the methane emission factor value

BACK CANCEL SAVE

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Reporting Emissions Data

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Cal e-BGRT
California Electronic Greenhouse Gas Reporting Tool

Home » GHG Reporting Instructions » Reporting Form Instructions

Notes: The Cal e-BGRT help system includes general instructions on using the California GHG reporting tool. However, the help system may not explain differences between California and U.S. EPA reporting requirements. Please refer to the e-RRS reporting website for California-specific reporting requirements and additional help.

Reporting Form Instructions

This help page provides guidance for using Reporting Forms and Cal e-BGRT to report GHG emissions and other required information for a subpart.

For each applicable subpart from the list below, users must report their facility's total emissions of each applicable GHG directly into Cal e-BGRT and submit required supplemental data and information using Excel-based Reporting Forms which may be downloaded as described below. The Reporting Forms are meant to provide reporters with a simple and straightforward means for reporting required data and information for the subparts listed below and DO NOT ASSIST REPORTERS IN CALCULATING EMISSIONS:

- Subpart A - General Information
- Subpart Q - Iron and Steel Production
- Subpart S - Lime Manufacturing (CEMS users only)
- Subpart V - Nitric Acid Production
- Subpart W - Oil and Natural Gas Systems
- Subpart Y - Petroleum Refineries
- Subpart MM - Suppliers of Petroleum Products
- Subpart NN - Suppliers of Natural Gas and Natural Gas Liquids
- SFG Gas Insulated Switchgear
- Electric Power Entities

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Reporting Emissions Data

Subpart (Click to view subpart help)	Reporting Forms (click to download)	XML Schema (Click to download)	Required Submission Format
A - De Minimis Emissions	De Minimis Emissions.xls	n/a	XLS
A - Forest Product	Forest Product.xls	n/a	XLS
A - Sheet Steel - Soda Ash - Gypsum Production Data	Sheet Steel - Soda Ash - Gypsum Production Data.xls	n/a	XLS
Q - Iron and Steel Production	Subpart Q Production Data.xls	n/a	XLS
S - Lime Production (CEMS only)	Subpart S Product Information for CEMS Reporting.xls	n/a	XLS
V - Nitric Acid Production	Subpart V GHG Reporting Form - Required Data.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Emissions Reporting Tool.xls	carb_subpart_w.xsd	XML
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Activity Data Workbook.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Calculation Tool.xls	n/a	n/a
Y - Petroleum Refineries	Subpart Y Additional Production Data and Solomon Energy Efficiency Index.xls	n/a	XLS
MM - Suppliers of Transportation Fuels Calculation and Reporting Tool	Suppliers of Transportation Fuels Calculation and Reporting Tool.xls	carb_subpart_mm.xsd	XML
NN - Suppliers of Natural Gas and NGLs	Subpart NN - Interstate NG Pipeline.xls	n/a	XLS
SFG Gas Insulated Switchgears	SFG Gas Insulated Switchgear (GIS) Reporting.xls	n/a	XLS

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Downloading Calculation Spreadsheets

Equation Y-8 Calculation Spreadsheet.xls	Catalytic Cracking Units or Fluid Coking Units	CO ₂	Y-8 Help
Equation Y-9, Y-10 Calculation Spreadsheet.xls	Catalytic Cracking Units, Fluid Coking Units, Coke Calcining Units, Catalytic Reforming Units	CH ₄ , N ₂ O	Y-9, Y-10 Help
Equation Y-11 Calculation Spreadsheet.xls	Catalytic Reforming Units	CO ₂	Y-11 Help
Equation Y-12 Calculation Spreadsheet.xls	On-Site Sulfur Recovery Plants, Sour Gas Sent Off-Site for Sulfur Recovery	CO ₂	Y-12 Help
Equation Y-13 Calculation Spreadsheet.xls	Coke Calcining Units	CO ₂	Y-13 Help
Equation Y-14, Y-15 Calculation Spreadsheet.xls	Uncontrolled Asphalt Blowing Operations, Asphalt Blowing Operations Controlled by vapor Scrubbing	CO ₂ , CH ₄	Y-14, Y-15 Help
Equation Y-16a, Y-16b, Y-17 Calculation Spreadsheet.xls	Asphalt Blowing Operations Controlled by Thermal Oxidizer or Flare	CO ₂ , CH ₄	Y-16a, Y-16b, Y-17 Help
Equation Y-18 Calculation Spreadsheet.xls	Delayed Coking Units	CH ₄	Y-18 Help
Equation Y-19 Calculation Spreadsheet.xls	Process Vents Not Covered in Paragraphs (a) through (i) of Section 98.253	CO ₂ , CH ₄ , or H ₂ O	Y-19 Help
Equation Y-20 Calculation Spreadsheet.xls	Blowdown Systems	CH ₄	Y-20 Help
Equation Y-21 Calculation Spreadsheet.xls	Equipment Leaks	CH ₄	Y-21 Help
Equation Y-22 Calculation Spreadsheet.xls	Storage Tanks Other Than Those Processing Unstabilized Crude Oil	CH ₄	Y-22 Help
Equation Y-23 Calculation Spreadsheet.xls	Storage Tanks That Process Unstabilized Crude Oil	CH ₄	Y-23 Help
Equation Y-SSM Calculation Spreadsheet.xls	Flares	CO ₂	Y-SSM Help

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Equation Y-20 Calculation Spreadsheet

The spreadsheet displays the following formula for Equation Y-20:

$$CH_4 = \left(Q_{BL} \times EF_{BD} \times \frac{16}{MVC} \times 0.001 \right)$$

Input fields shown include:

- Facility Name
- Reporter Name
- Unit Name or Identifier
- Unit Description
- Comments
- Unit Type: Blowdown System

Input Data section shows:

- Quantity of crude oil plus the quantity of intermediate products received from off site that are processed at the facility (MMbbl/year): 137,000
- Methane emission factor for uncontrolled blowdown systems (scf): 137,000
- The default value for EF_{BD} is 137,000

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Exporting Equation Calculation Spreadsheets

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Reporting Emissions and Production Data

- Report emissions for all Facility Level emissions sources
- Report Emissions for all additional facility units
- Report Production Data

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Reporting Production and EEI Data (additional Production and Solomon EEI data)

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Reporting Production Data

Product	EIA
Renewable Fuels, TOTAL	202
Ethanol	141
Biomass-based diesel	203
Other renewable diesel	205
Other renewable fuels (Oxygenates (Excluding Fuel Ethanol), TOTAL	446
ETBE	142
MTBE	144
Other Oxygenates	645
LRG/LRG Ethane	641
LRG/LRG Ethylene	631
LRG/LRG Propane	642
LRG/LRG Propylene	632
LRG/LRG Butane	643
LRG/LRG Butylene	633
LRG/LRG Isobutane	644
LRG/LRG Isobutylene	634
LRG/LRG Pentane Plus	220
Unfinished Oil, TOTAL	812
Naphtha and Lighter	820


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Additional Information for Refiners who also report as Suppliers of Carbon Dioxide


- Does your facility produce Hydrogen?
- Does your facility capture and sell CO₂?
- If you report under Subpart PP (Suppliers of CO₂)- there is a potential for double-counting “transferred CO₂” emissions.
- Use the provision in 95114(g) to subtract emissions that are reported using other calculation methods from your facility total.
- ARB will issue guidance on this topic.

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Data Validation

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Reporting: Validation Messages

- Tool provides data validation
- Most messages must be cleared before report submittal
- Clicking on message brings you to where the issue occurred

ARB Test Facility - TEST ONLY - Production Site (2011)
95115, 95112 (Subpart C) - Stationary Fuel Combustion
 Subpart Overview - Validation Report

SUBPART C VALIDATION REPORT
 This report contains a complete set of validation messages for all data required by this Subpart. For additional information about Validation Reports, please use the Cal e-GGRT Help links provided. Print-friendly version

FACILITY-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Unit Name	Message ³
No facility-level validation messages.			

CONFIGURATION-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Unit Name	Message ³
Data Completeness	C129	PG Single Unit	Annual carbon dioxide emissions from combustion of all biomass fuels combined (if any of the units burn fossil AND biomass). This data element is required.
Data Completeness	C128	PG Single Unit	Annual carbon dioxide emissions from sorbent. This data element is required.

FUEL-LEVEL VALIDATION MESSAGES


Validation Type ¹	ID ²	Unit Name	Message ³
Data Completeness	C148	PG Single Unit	Natural Gas (Weighted U.S. Average) Annual carbon dioxide emissions from combustion of the specified fuel. This data element is required.

Subpart Overview

¹Validation Types: Cal e-GGRT generates a variety of validation types, defined below:

- Data Completeness: data required for reporting is missing or incomplete.
- Data Quality: data is outside of the range of expected values. The value you have provided is outside the ARB estimated range for this data element. Please double check this value and re-verify, if necessary. If you believe it to be correct, please submit the value as is.
- Screen Error: a data value or combination of data values prevents Cal e-GGRT from continuing to the next page. Typically, this will not appear on the Validation Report, but instead will be displayed on the data entry page at the time the error was created.


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Key Reporting Dates

- See **Key Dates** web page for specific dates applicable to reporting year
- <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-dates.htm>
- Actual Reporting Dates may differ from dates specified in the regulation if the specified dates fall on a Saturday, Sunday, or Holiday
- Key Dates** page is updated annually with required submission dates


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For More Information

- GHG Reporting Website
 - <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>
- See website for:
 - Regulation reporting guidance and fact sheets
 - Reporting tool information
 - “Clean” copy of the regulation (no underline/strikeout)
 - Sector specialist contacts
- Email reporting tool questions to: ghgreport@arb.ca.gov

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GHG Reporting Contacts

Subject Matter	Contact
GHG Mandatory Reporting (General)	Dave Edwards , Manager 916.323.4887
Reporting Requirements, Stationary Combustion, Other Sectors (cement, glass, pulp and paper, etc.)	Patrick Gaffney 916.322.7303
Reporting Tool Registration and General Questions	Karen Lutter 916.322.8620
Electricity Generation and Cogeneration Facilities	Anny Huang 916.323.8475
Electricity Retail Providers and Electricity Marketers	Wade McCartney 916.327.0822
Fuel and CO2 Suppliers - Transportation Fuels, Natural Gas, LPG, CO2	Byard Mosher 916.323.1185
Petroleum Refineries, Hydrogen Plants, Oil & Gas Production	Byard Mosher 916.323.1185
Greenhouse Gas Report Verification	Renee Lawver , Manager 916.322.7062
Chief – Greenhouse Gas Emission Inventory Branch	Richard Bode , Chief 916.323-8413

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