

California Electronic Greenhouse Gas Reporting Tool

Reporting for Subparts H, N, AA, Q, V, S Process Emissions and Product Data

Cement Production, Glass Production, Pulp and Paper Manufacturing, Nitric Acid Production, Lime Manufacturing, Iron and Steel Production

March 20, 2012

Presentation Slides Available Here:

http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm



Outline

- Registration and Tool Overview
- Subpart C Overview Stationary Combustion
- Reporting Process Emission Sources
 - Summary emissions data
 - Product data
 - Detail data
 - Sources with CEMS (tool demo)
 - Sources without CEMS (tool demo)
 - Q&A



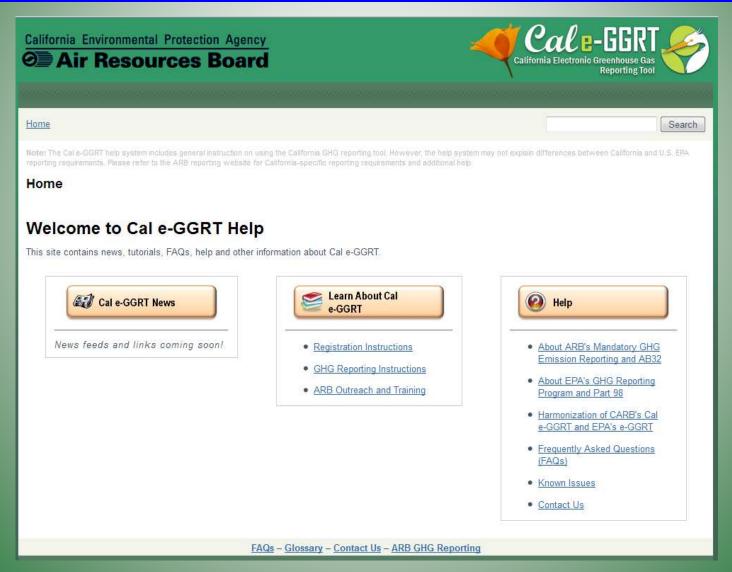
Training Resources

- 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
 http://www.ep



Cal e-GGRT Help

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





What is Cal e-GGRT?

- The California Electronic Greenhouse Gas Reporting Tool (Cal e-GGRT) is used to report all data required by the California GHG mandatory reporting regulation
- Contains specialized modules for each sector required to report
 - Also includes modules for Fee Regulation and SF₆
- Multiple users may be associated with a single facility or entity
- Verifiers may be associated with facilities for data review purposes



Registering in Cal e-GGRT

- Before using Cal e-GGRT, it is necessary to perform NEW USER REGISTRATION
 - Applies to ALL users, even if previously reported to ARB
- Registration is separate from U.S. EPA registration
- ARB approves Electronic Signature Agreement (ESA) before users can accept Invitation Codes
- Cal e-GGRT sends DR Invitation Codes to primary managers to begin associate with facilities
- Users may be Designated Representatives (DRs),
 Alternate DRs, and Agents
- Contact <u>ghgreport@arb.ca.gov</u> if NEW reporting account needed



User Registration: Login Page

http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm

Context sensitive help on every page

California Environmental Protection Agency

Air Resources Board



If you have an account then log in here

(?) Cal e-GGRT Help

Login to Cal e-GGRT

Welcome to ARB's electronic Greenhouse Gas Reporting Tool

About Cal e-GGRT

Cal e-GGRT supports facility and supplier reporting for the Mandatory Reporting of Greenhouse Gases Regulation. The regulation requires electronic reporting of greenhouse gas (GHG) emissions from large sources and suppliers in California.

Cal e-GGRT LOGIV

User Name:

Password:

LOGIN

Forgot your User Name or Password?

New Cal e-GGRT Users Must Register

New users must complete a one-time registration process. After establishing a user account you can register your facility.

NEW USER REGISTRATION

NOTE: Your Cal e-GGRT user account is NOT the same as your EPA CDX user account. Otherwise, click the green NEW USER REGISTRATION button

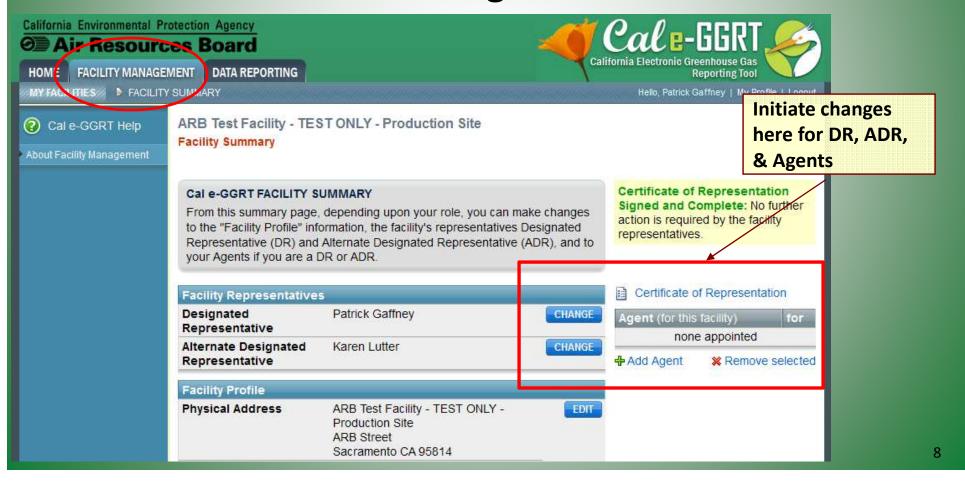
Warning Notice

Cal e-GGRT registration is part of a California Air Resources Board (ARB) computer system, which is for authorized use only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.



User Registration: Adding ADR and Agents

- Facility Management tab
- Use CHANGE or Add Agent buttons





Reporting: Facility Profile and Data Reporting

- Use the Facility Management tab to enter Facility Profile data
- Use Data Reporting tab to report other data





Reporting: Adding Subparts

- Add or remove subparts as applicable to reporting entity
- OPEN subpart to complete data entry for each subpart

ARB Test Facility - TEST ONLY - Production Site (2011)

Cal e-GGRT Greenhouse Gas Data Reporting

Select Facility » Facility or Supplier Overview

FACILITY OR SUPPLIER OVERVIEW

This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).



Uploaded Date

REPORT DATA

Uploaded File Name

No subpart attachments

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 95113 (Subpart Y)—Petroleum Refineries	View Messages	OPEN
♣ADD or REMOVE Subparts		
UBPART ATTACHMENTS		

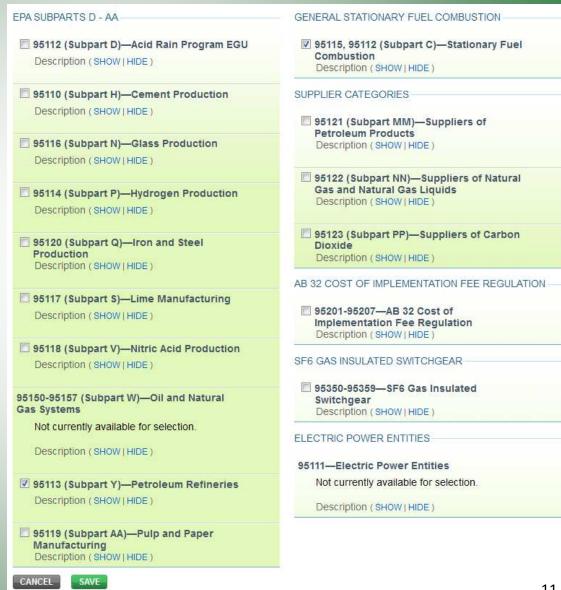
Uploaded By

Subpart



Reporting: Adding Subparts

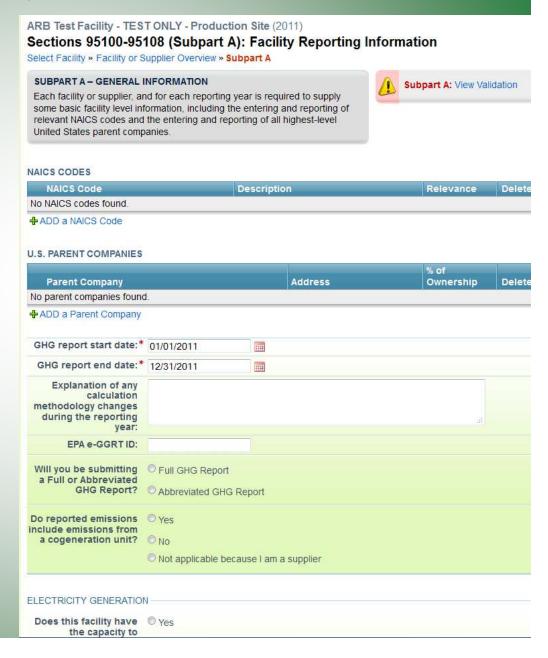
 Select applicable subparts





Subpart A

- Applies to all reporters
- Includes info for electricity generators
- Report electricity and natural gas purchases
- De miminis emissions





Additional Data Reporting

- ARB requires additional product data and CBI data deferred by U.S. EPA
- Cal e-GGRT supports reporting all required data, and is harmonized with the ARB regulation
 - Product data
 - Equation inputs, such as monthly HHV data or carbon content data
 - Additional identification of biogenic emissions
 - Additional information for electricity generation or cogeneration facilities



Subpart C Reporting

Stationary Combustion Emissions Subpart C

- Report emissions from stationary fuel combustion sources under the subpart C module
- Exceptions to reporting under Subpart C
 - Units exempted from reporting combustion emissions under 40 CFR 98.30(b) (e.g., portable equipment, ag. pumps, etc.)
 - Electricity generating units subject to subpart D
 - Combustion units identified in another subpart that exhaust combined combustion and process emissions through a CEMS (e.g. cement kilns with combined process and combustion emissions measured by a CEMS are reported under Subpart H)
 - Combustion activities calculated as specifically identified within another subpart



Adding a Subpart C Configuration

- Two Step Process
- 1. Configuration Setup
 - Performed once for each configuration
 - Details vary configuration type
- 2. Fuel Use and Emissions per Configuration
 - Report for each fuel combusted in a given configuration
 - Inputs vary by tier and fuel type (default EFs, HHV data, etc.)



Reporting: Subpart C Stationary Combustion

Subpart C Overview

Click
"Add a
Configuration"

Select Configuration Type and "Next"

Input Configuration ID Info And "Save"

Configuration Overview ARB Test Facility - TEST ONLY - Production Site (2011)

95115, 95112 (Subpart C) - Stationary Fuel Combustion

Subpart C Overview

OVERVIEW OF SUBPART C REPORTING REQUIREMENTS

Subpart C requires affected facilities to report annual carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) emissions from each stationary combustion unit. First, use this page to identify each stationary combustion reporting *configuration* (reporting options listed in §98.36) and then enter emissions information required by subpart C for each configuration.

For additional information about subpart C reporting, please use the Cal e-GGRT Help link(s) provided.



Subpart C: View Validation

CONFIGURATION SUMMARY

Configuration Name or ID	Configuration Type	Status ¹		Delete
PG Single Unit	Single Unit Using Tiers 1, 2, or 3	Incomplete	OPEN	×
PG Boiler #3	Single Unit Using Tiers 1, 2, or 3	Incomplete	OPEN	×
♣ Add a Configuration				
◆ Facility Overview				



Process Emissions



Process Emissions

- Occur as the result of chemical reactions and other non-combustion activities
- Separately calculated and reported
 - UNLESS, measured using CEMS that also measures combined combustion emissions
- Requires separate reporting within tool
- Upload spreadsheets with detailed process emissions calculation data



Reporting: Subparts H, N, AA, Q, V, S

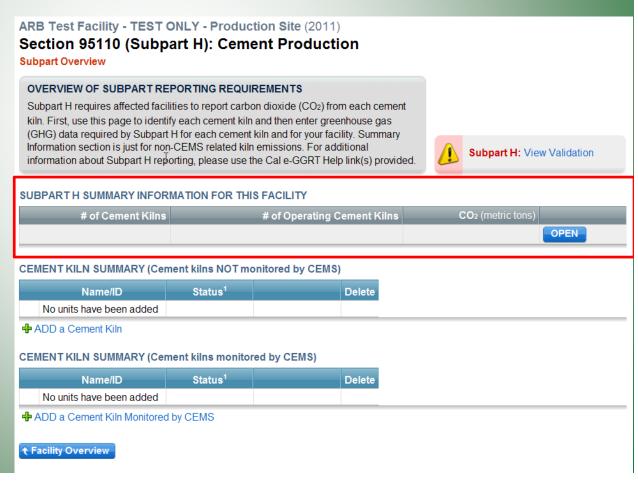
Cement Production, Glass Production, Pulp and Paper Manufacturing, Nitric Acid Production, Lime Manufacturing, Iron and Steel Production

- ARB and EPA reporting are very similar for these sectors
 - ARB requires additional product data and supporting data spreadsheets
- Refer to U.S. EPA Training Slides
 - http://www.epa.gov/climatechange/emissions/training.html
- U.S. EPA training slides are much more comprehensive and include detailed notes
- Presentation focuses on ARB and EPA reporting differences



Cement Summary Information

- Enter Summary information
- Includes product data





Cement Summary Information

- If using CEMS, leave process emissions blank
- List if more than3 substitutes

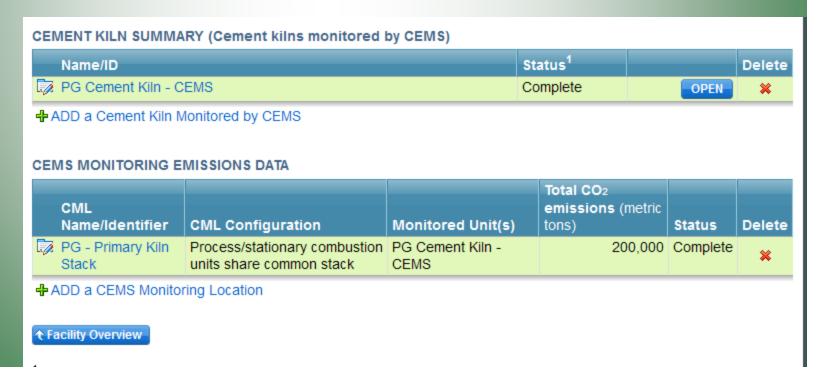
CEMENT SUBSTITUTE #3	
Annual Cement substitute consumed by the Facility	short tons
Cement Substitute Type	
ADDITIONAL CEMENT SUB	STITUTE
Total Quantity of Other Cement substitute consumed by the Facility	567 short tons
Cement Substitute Type	Substitute A, Substitute B, Substitute C
EQUATION SPREADSHEET Please attach the three con	ATTACHMENTS spleted Subpart H calculation spreadsheets you used to calculate
	ipieted Subpart il calculation spreadsneets you used to calculate
above:	
Equation H-1 Ca	alculation Spreadsheet.xls
Equation H-1 C Equation H-2, H	
Equation H-1 Ci Equation H-2, H	alculation Spreadsheet.xls I-3, H-4 Calculation Spreadsheet.xls
Equation H-1 C Equation H-2, H	alculation Spreadsheet.xls I-3, H-4 Calculation Spreadsheet.xls
Equation H-1 C Equation H-2, H	alculation Spreadsheet.xls I-3, H-4 Calculation Spreadsheet.xls alculation Spreadsheet.xls

Patrick Training Test Fa Section 95110 (Sul	cility (2011)	uction	
Subpart Overview » Subpar			
Subpart H requires a facili	NFORMATION FOR THIS FACILITY to report the facility information about the facility information requ T Help link(s) provided.	described below.	Annual CO2 process emissions from cement manufacturing (metric tons)
EQUATION H-1 SUMMARY	ND RESULT (for kilns NOT monitors) $CO_{2CMF} = \sum_{m=1}^{k} CO_{2Cli,m} + CO_{2m}$	rm	
Annual CO ₂ process emissions from cement manufacturing (if applicable)	element. (metric Use Subpart H equation sp	tons)	ate (for kilns not monitored by a CEM:
TOTAL NUMBER OF KILNS Number of kilns			
Number of operating kilns			
ANNUAL PRODUCTION AND	CONSUMPTION QUANTITIES -		
Annual Cement production for the Facility	short to	ons	
Annual Clinker production for the Facility	short to	ons	
Annual Clinker consumed by the Facility	short to	ons	
Annual Limestone consumed for blending	short to	ons	
Annual Gypsum consumed for blending	short to	ons	



Cement Reporting Using CEMS

- Add a cement kiln
- Add a CEMS monitoring location
- Continue checking "View Validation" to complete all data





Cal e-GGRT Online Tool Demonstration Using CEMS

- Adding subpart
- Entering Summary and Product data
- Adding unit monitored by CEMS
- Checking Validation Messages
- Questions



Annual Production of Paper

Products (metric tons)

Pulp and Paper Summary Information

SUBPART AA SUMMARY INFORMATION FOR THIS FACILITY

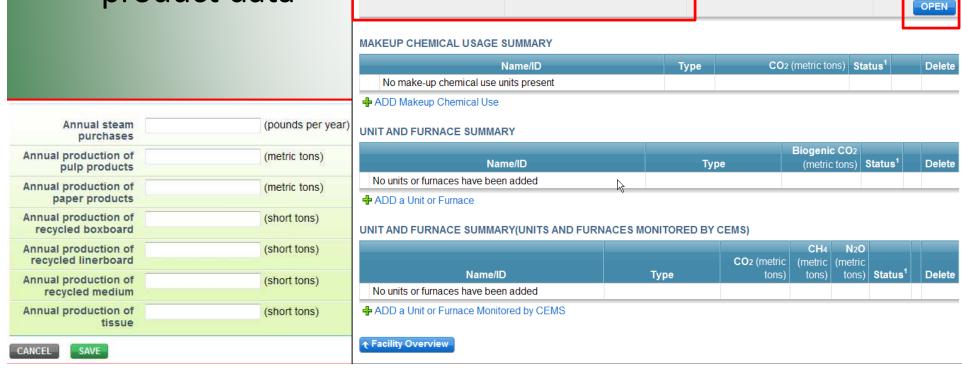
Annual Production of Pulp

Products (metric tons)

Annual Steam

Purchases (pounds)

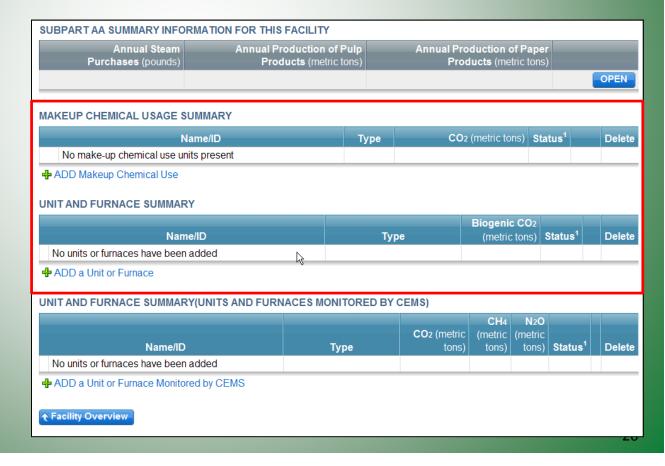
- Enter Summary information
- Includes product data





Pulp and Paper: Non-CEMS Makeup Chemical & Furnace

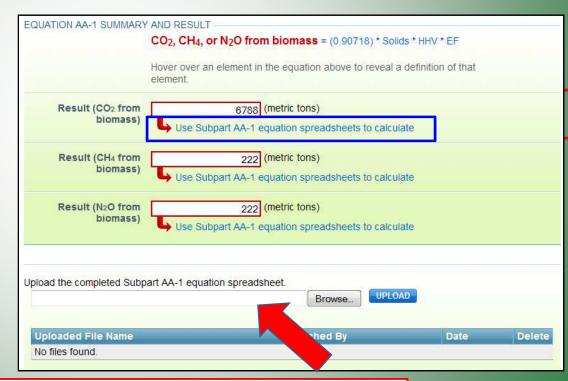
- Enter Summary information
- Includes product data





Uploading Required Supporting Data

- Cal e-GGRT <u>requires</u> upload of additional supporting data that is not required by U.S. EPA
- Must upload spreadsheet if provided
- Validation
 errors
 triggered if not
 included



EQUATION-LEVEL VALIDATION MESSAGES				
Validation Type ¹	Furnace	ID ²	Message ³	
Data Completeness	PG Furnace - Paper	AA039	You have not uploaded a Subpart AA-1 equation spreadsheet.	



Glass Product Data

Patrick Training Test Facility (2011)

- Provide data shown
- Necessary to complete report

SUBPART N SUMMARY INFORMATION FOR THIS	
Subpart N requires a facility to report the facility information about the facility informat please use the Calle-GGRT Help link(s) provided.	
Number of furnaces	0
Annual quantity of glass produced across all furnaces	0 (short tons)
ANNUAL QUANTITY OF CARBONATE-BASED RAWM	ATERIALS CHARGED ACROSS ALL F
Limestone	(short tons)
Dolomite	(short tons)
Sodium Carbonate	(short tons)
Barium Carbonate	(short tons)
Strontium Carbonate	(short tons)
Lithium Carbonate	(short tons)
Potassium Carbonate	(short tons)
THE REPORT OF THE PROPER SHARE WE SHARE THE SECOND SECTION OF THE SECOND SHARE	
ANNUAL QUANTITY OF PRODUCTS PRODUCED—	
Annual quantity of fiberglass pulled from the facility	(short tons)
Annual quantity of fiberglass pulled	(short tons)



Cal e-GGRT Online Tool Demonstration Non-CEMS

- Adding subpart
- Entering Summary and Product data
- Adding non-CEMS information
- Checking Validation Messages
- Questions



Data Validation

- 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 link(s) provided.



FACILITY-LEVEL VALIDATION MESSAGES

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

CONFIGURATION-LEVEL VALIDATION MESSAGES

Validation Type ¹	ID ²	Unit Name	Message ³
Data Completeness	C125	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	Fuel Name	Message ³
Data Completeness	C146	PG Single	Natural Gas (Weighted	Annual carbon dioxide emissions from combustion of
		Unit	U.S. Average)	the specified fuel. This data element is required.

+ Subpart Overview

- 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 revise, 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.

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



Key Reporting Dates

- See Key Dates web page for specific dates applicable to reporting year
- http://www.arb.ca.gov/cc/reporting/ghgrep/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



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	<u>Karen Lutter</u> 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



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)
- Email reporting tool questions to:

ghgreport@arb.ca.gov