Fuel Suppliers and Hydrogen Producers Reporting GHG Emissions

Subpart P - Hydrogen Production
Subpart MM – Suppliers of Transportation Fuels
Subpart NN – Suppliers of Natural Gas and Natural Gas Liquids
Subpart PP – Suppliers of Carbon Dioxide

March 21, 2012

Presentation Slides Available Here:

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

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.

Training Resources

- Reporting Guidance: Applicability, Metering
  http://www.arb.ca.gov/cc/reporting/ghg-rep/guidance/guidance.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)
- Tool Training: Registration, Subparts
  http://www.arb.ca.gov/cc/reporting/ghg-rep/tool/ghg-tool.htm
- Cal e-GGRT Sandbox Training Site
  https://ssldev.arb.ca.gov/Cal-eGGRT/

Cal e-GGRT Help

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

Outline

- Define the regulatory basis for reporting
  - Which EPA and ARB regulations pertain to your reporting subpart?
- Overview of Cal e-GGRT
  - Registration
  - Tabs (Home, Facility Management, Data Reporting)
  - Adding Subparts to define your facility reporting footprint
- Data reporting for your Subpart

Subpart P
ARB Regulatory Basis for Reporting

Date	Action
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
12/17/2010	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)
10/28/2010	Corrects technical and editorial errors, and clarifies rule provisions for subparts E, H, K, N, O, P, Q, S, V, Z, CC, EE, GG, HH, LL, and NN. Preamble and Rule (PDF) (47 pp, 376K)
10/30/2009	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)

Subpart MM
ARB Regulatory Basis for Reporting

Date	Action
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
10/28/2010	Corrects technical and editorial errors, and clarifies rule provisions for subparts E, H, K, N, O, P, Q, S, V, Z, CC, EE, GG, HH, LL, and NN. Preamble and Rule (PDF) (47 pp, 376K) (MM also addressed)
10/30/2009	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)

Subpart NN
ARB Regulatory Basis for Reporting

Date	Action
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
12/17/2010	US EPA - 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)
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Subpart PP
ARB Regulatory Basis for Reporting

Date	Action
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
12/17/2010	US EPA - 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)
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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 SF_6
- 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.

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.

Registration

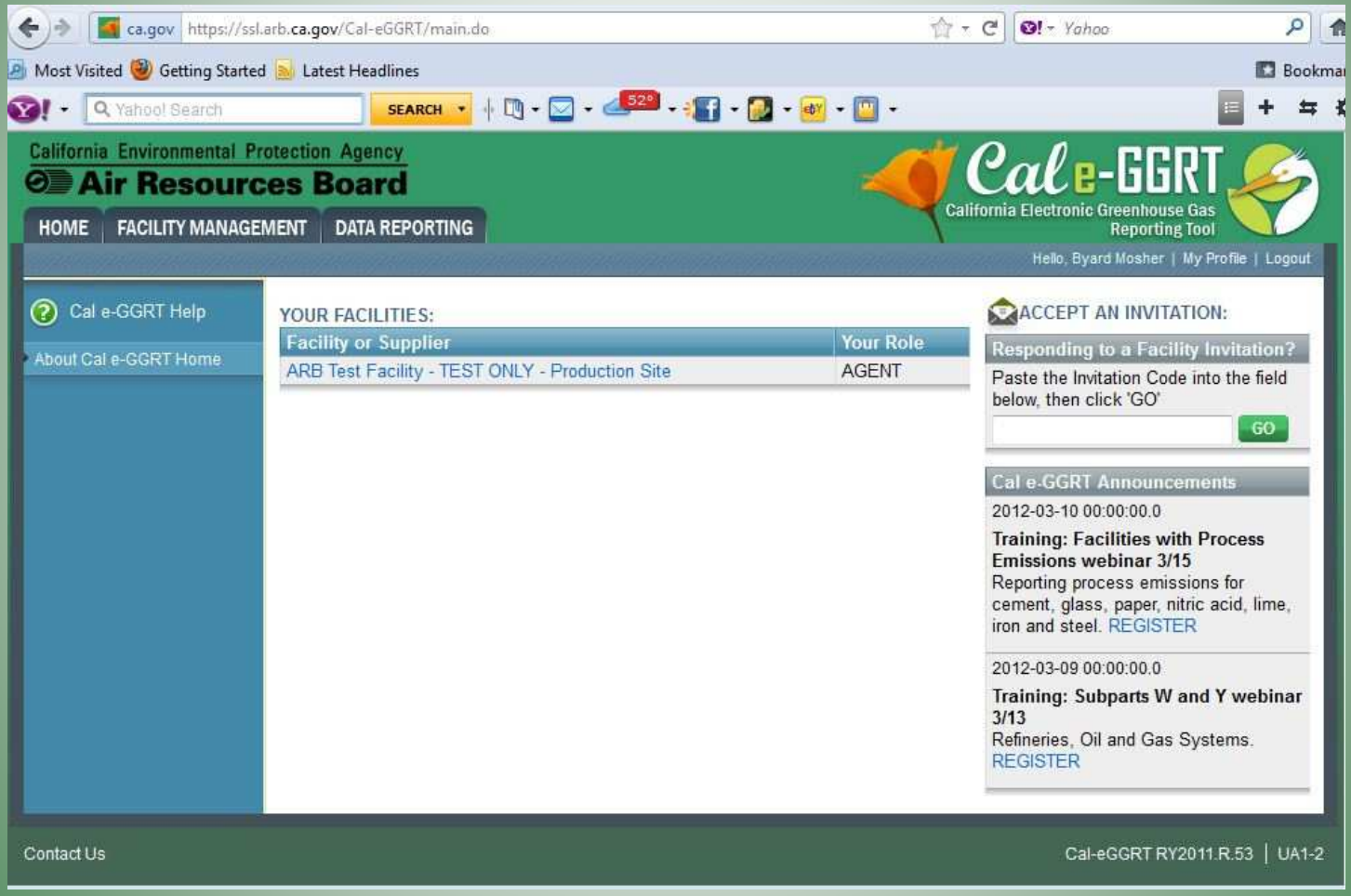
- Need an ARB Registration Code to register in Cal e-GGRT
  - New reporters must request an ARB Registration Code prior to registration. Send an e-mail request to

    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

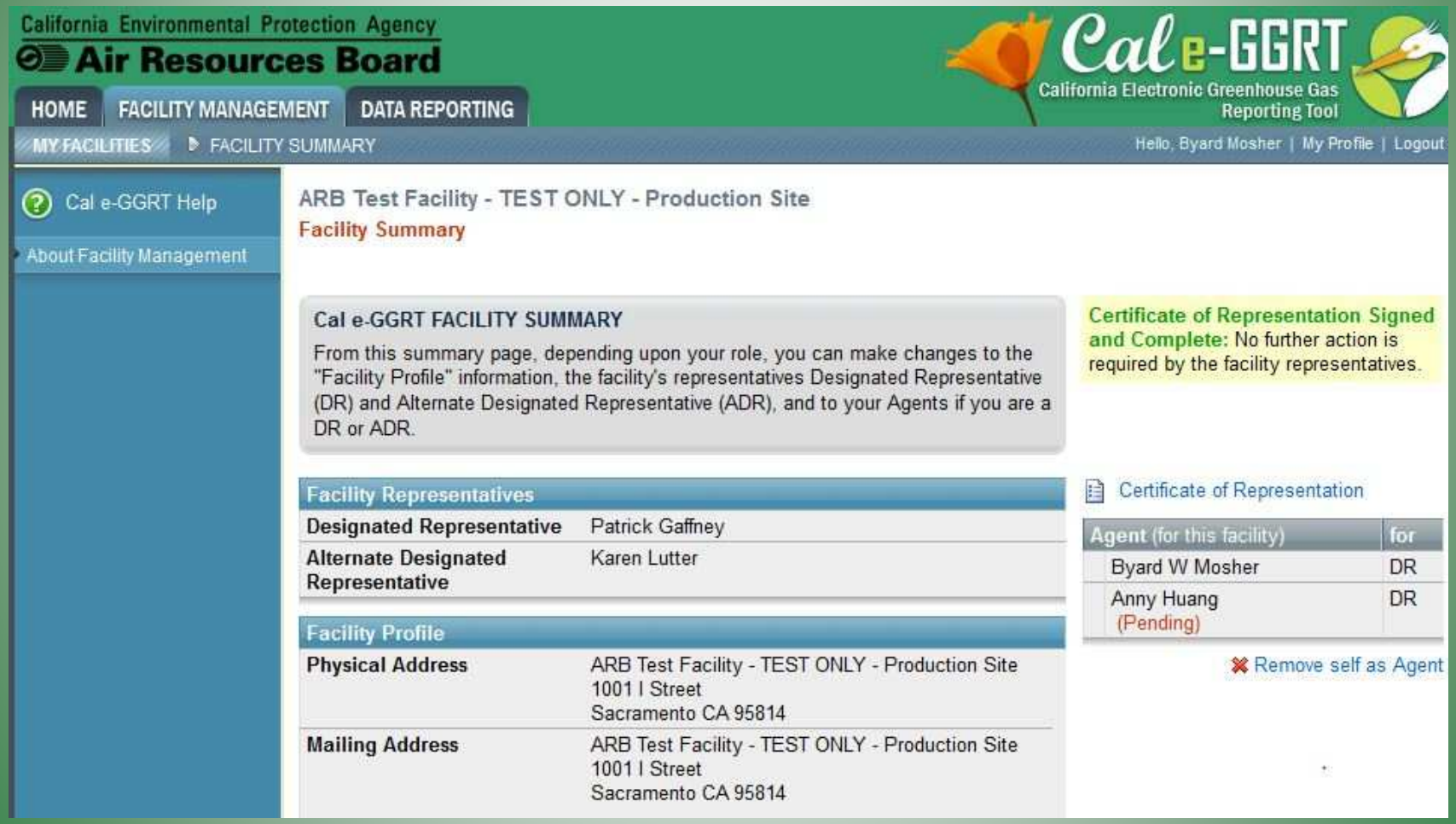
Cal e-GGRT Tabs

Home tab



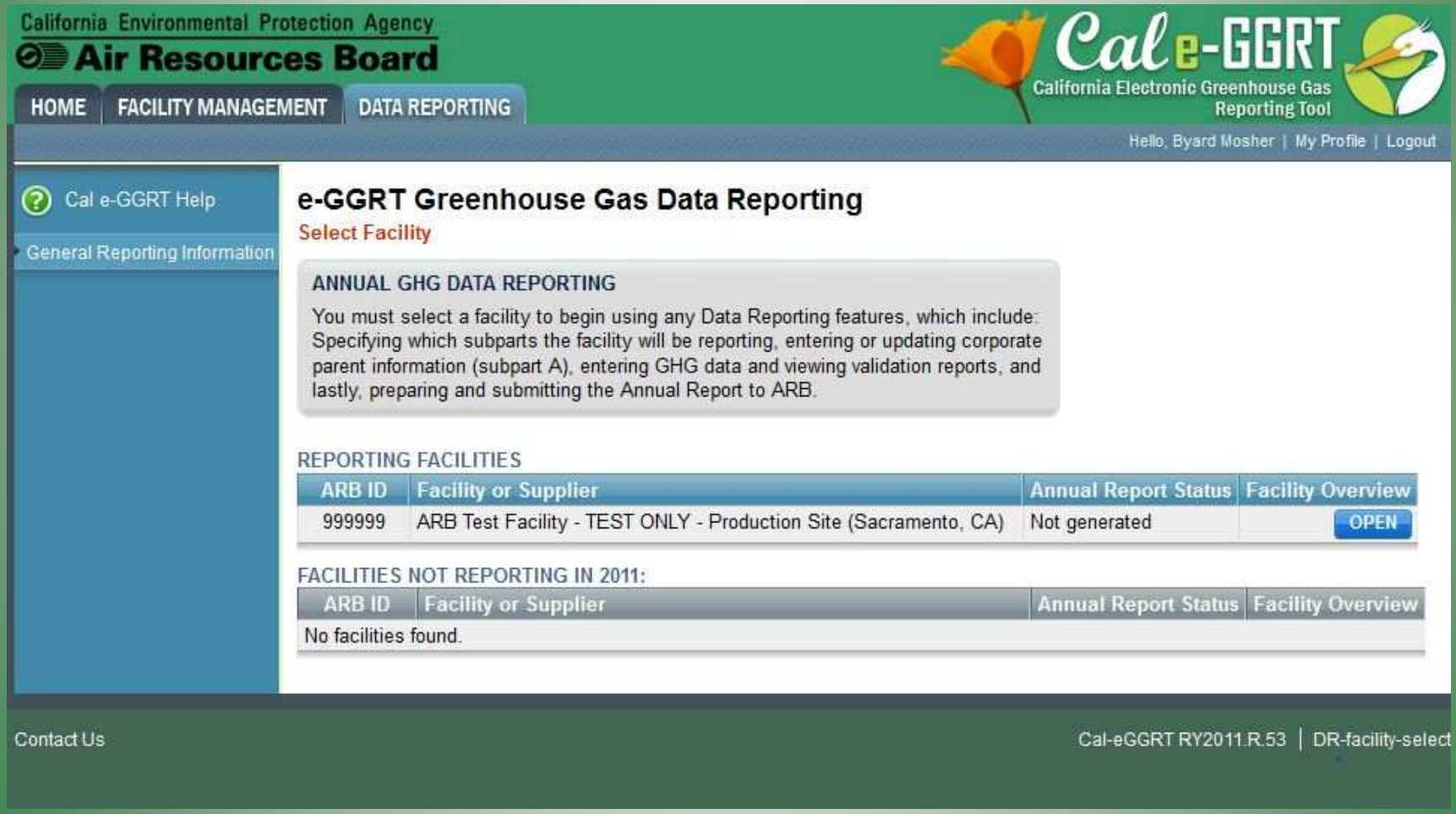
Cal e-GGRT Tabs

Facility Management Tab

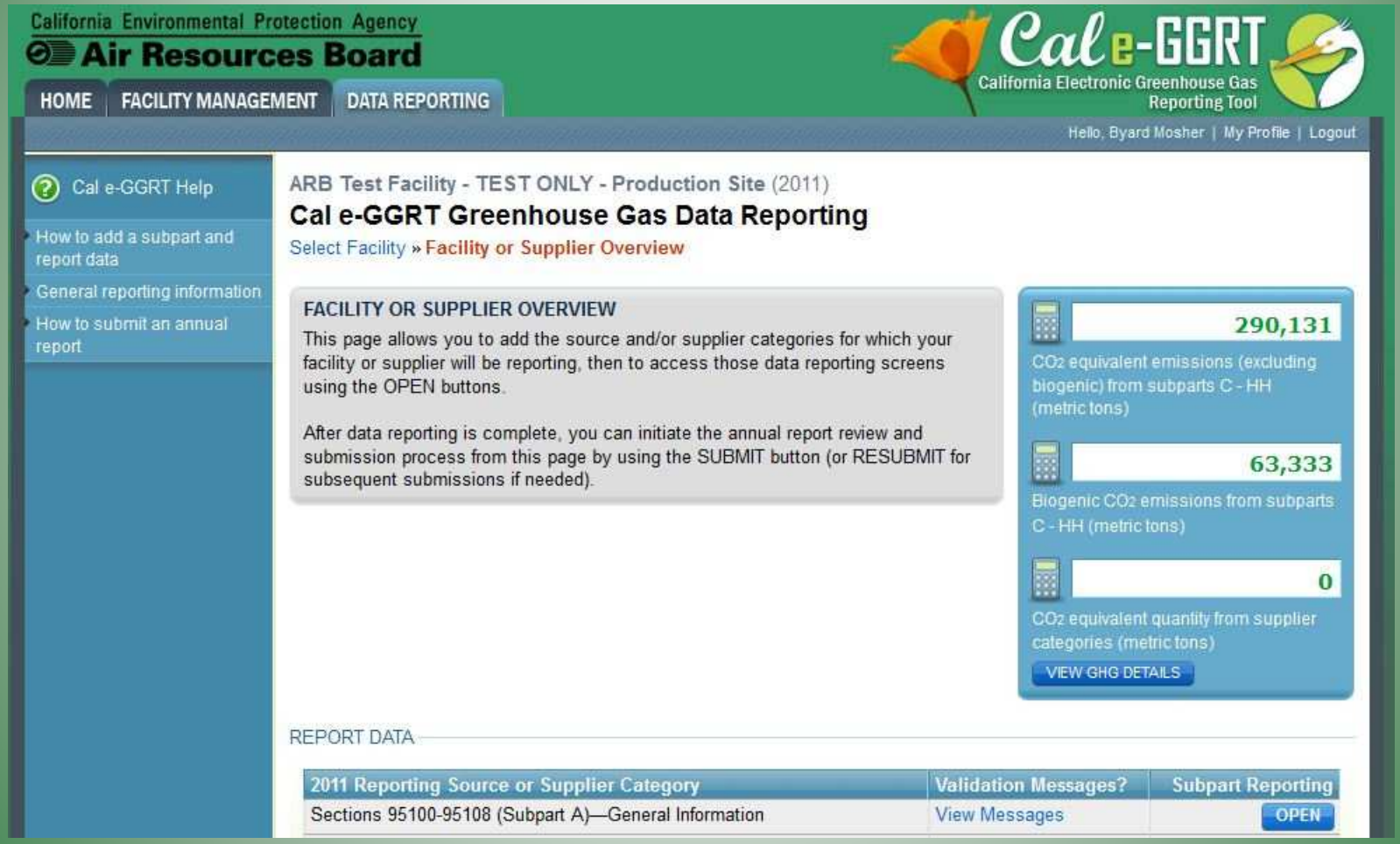


Cal e-GGRT Tabs

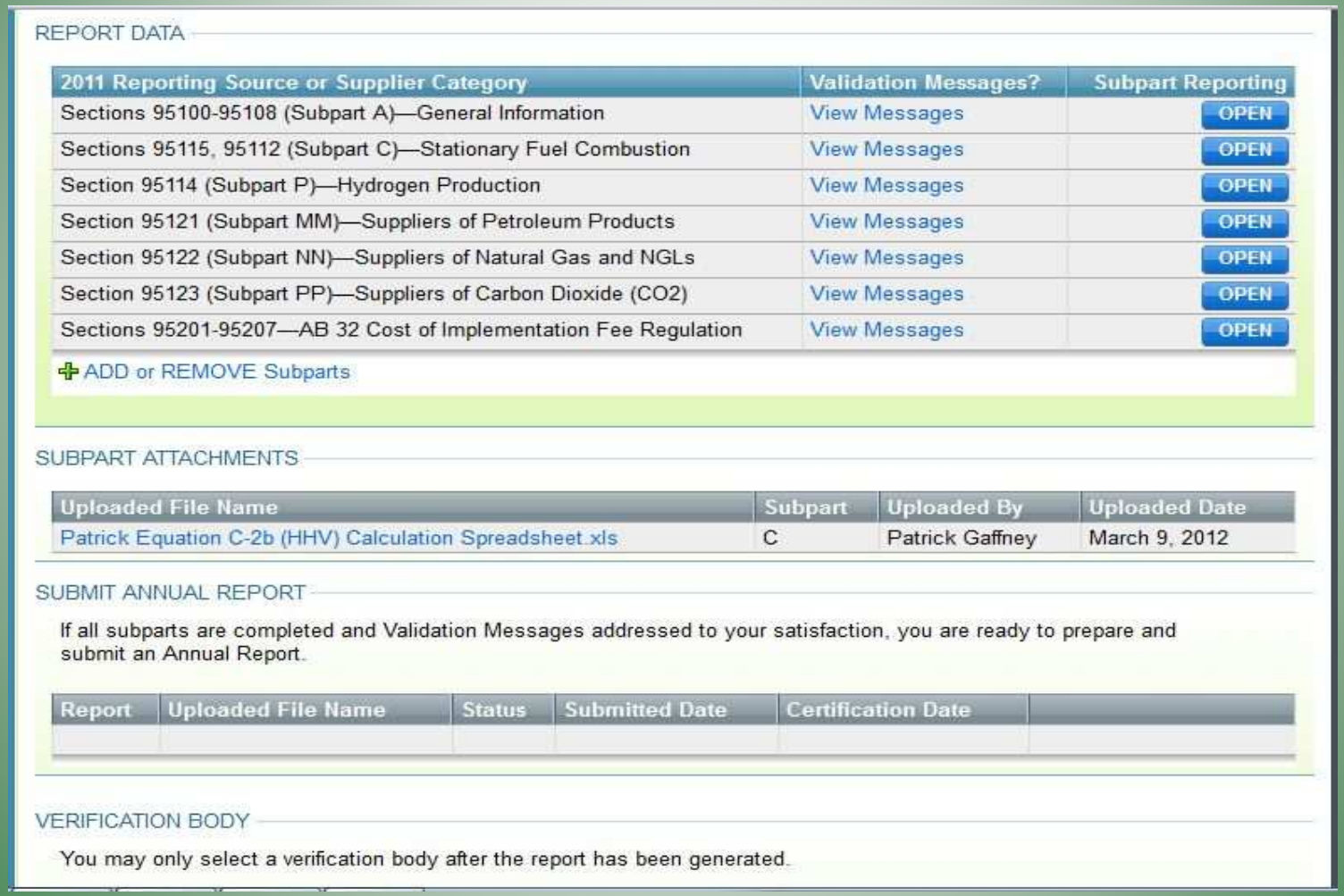
Data Reporting Tab



Reporting Emissions



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
Section 95121 (Subpart MM)—Suppliers of Petroleum Products	View Messages	OPEN
Section 95122 (Subpart NN)—Suppliers of Natural Gas and NGLs	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO2)	View Messages	OPEN
Sections 95201-95207—AB 32 Cost of Implementation Fee Regulation	View Messages	OPEN

ADD or REMOVE Subparts

SUBPART ATTACHMENTS

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

SUBMIT ANNUAL REPORT

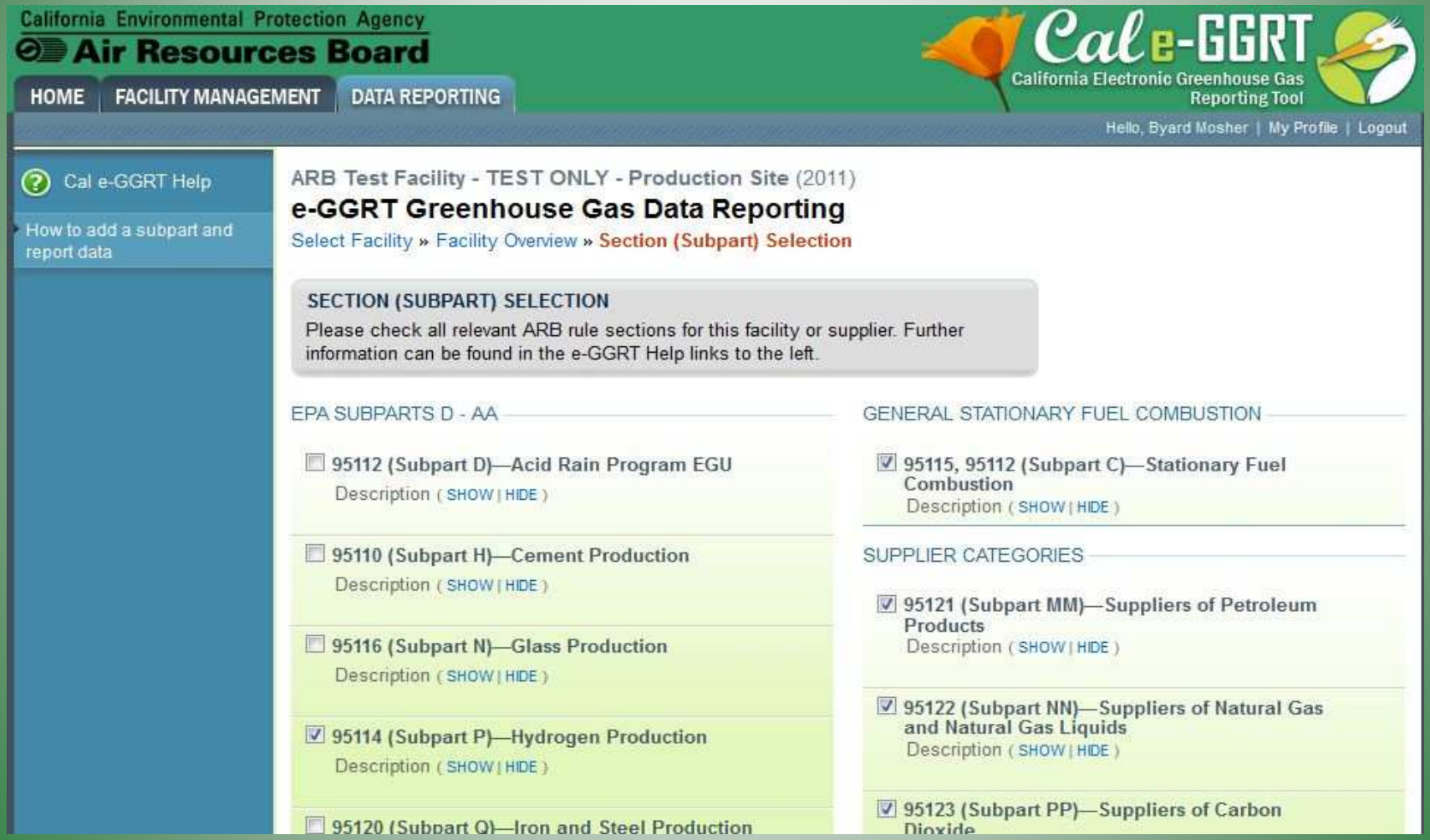
If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

Report	Uploaded File Name	Status	Submitted Date	Certification Date	

VERIFICATION BODY

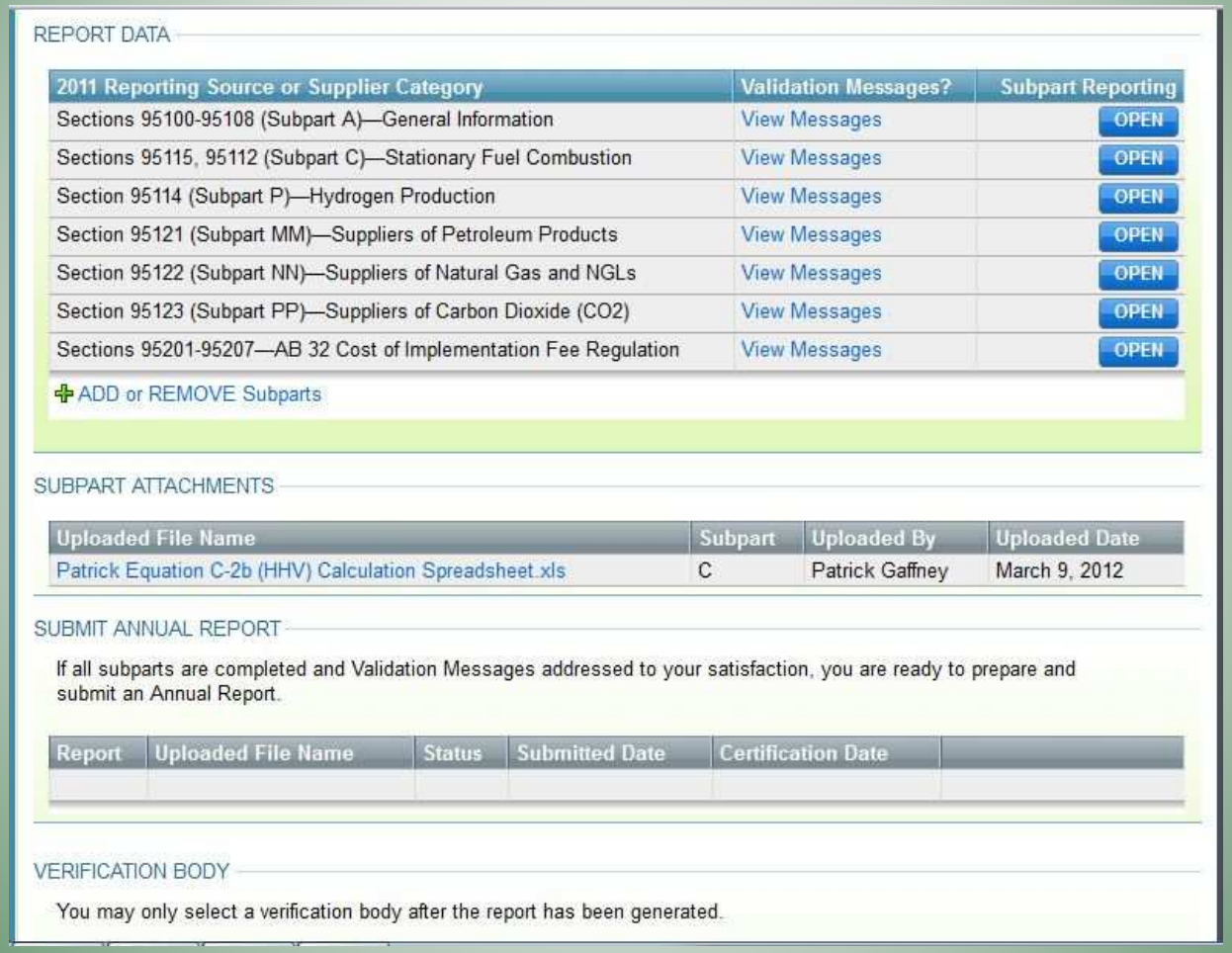
You may only select a verification body after the report has been generated.

Reporting: Adding Subparts



Reporting: Adding Subparts

Data Reporting



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
Section 95121 (Subpart MM)—Suppliers of Petroleum Products	View Messages	OPEN
Section 95122 (Subpart NN)—Suppliers of Natural Gas and NGLs	View Messages	OPEN
Section 95123 (Subpart PP)—Suppliers of Carbon Dioxide (CO2)	View Messages	OPEN
Sections 95201-95207—AB 32 Cost of Implementation Fee Regulation	View Messages	OPEN

ADD or REMOVE Subparts

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

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

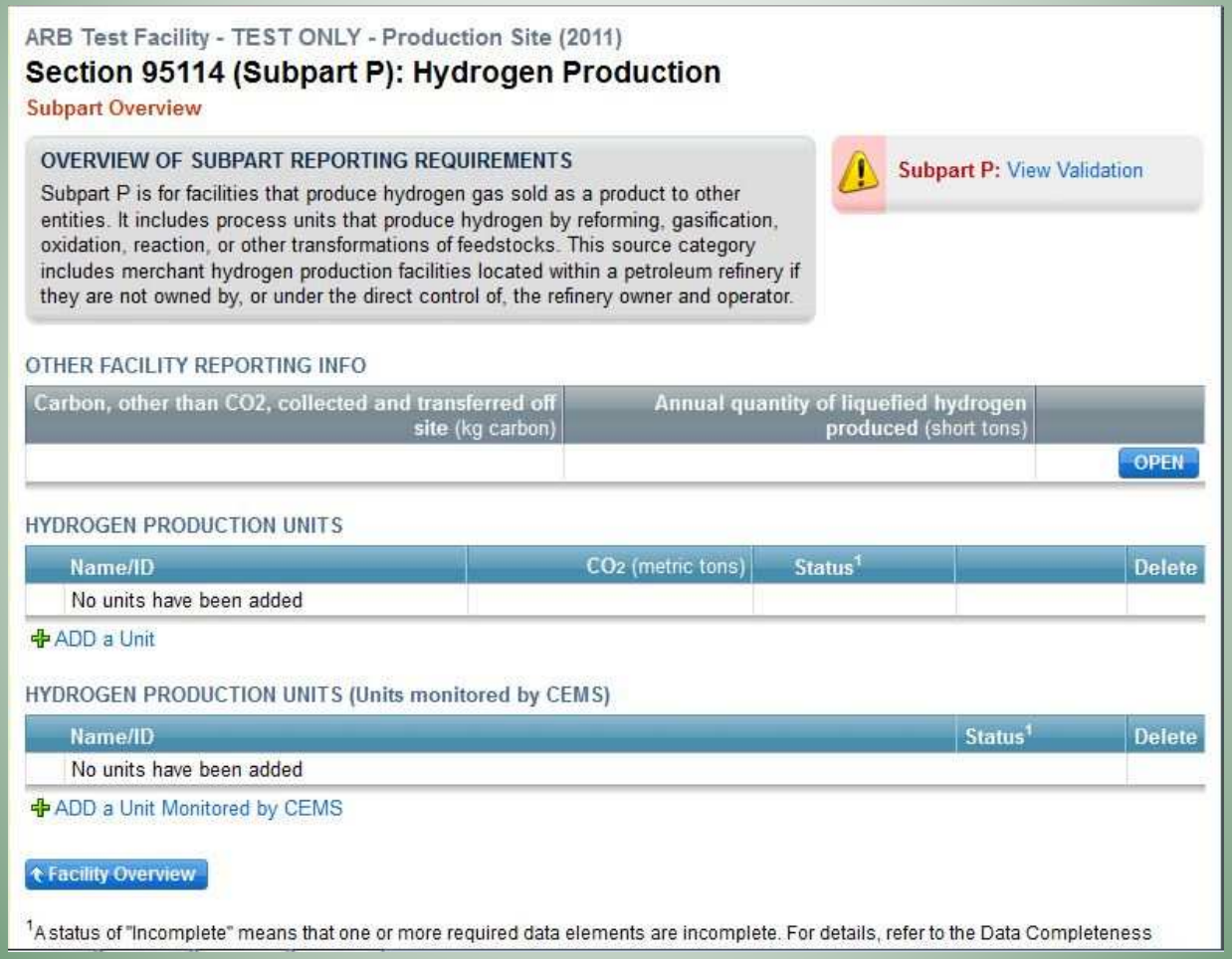
Report	Uploaded File Name	Status	Submitted Date	Certification Date	

VERIFICATION BODY

You may only select a verification body after the report has been generated.

Data Reporting – Subpart P

(Open Subpart P module to begin reporting)



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

Section 95114 (Subpart P): Hydrogen Production

Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

Subpart P is for facilities that produce hydrogen gas sold as a product to other entities. It includes process units that produce hydrogen by reforming, gasification, oxidation, reaction, or other transformations of feedstocks. This source category includes merchant hydrogen production facilities located within a petroleum refinery if they are not owned by, or under the direct control of, the refinery owner and operator.

Subpart P: View Validation

OTHER FACILITY REPORTING INFO

Carbon, other than CO2, collected and transferred off site (kg carbon)	Annual quantity of liquefied hydrogen produced (short tons)	
		OPEN

HYDROGEN PRODUCTION UNITS

Name/ID	CO_2 (metric tons)	Status[1]		Delete
No units have been added				

ADD a Unit

HYDROGEN PRODUCTION UNITS (Units monitored by CEMS)

Name/ID	Status[1]	Delete
No units have been added		

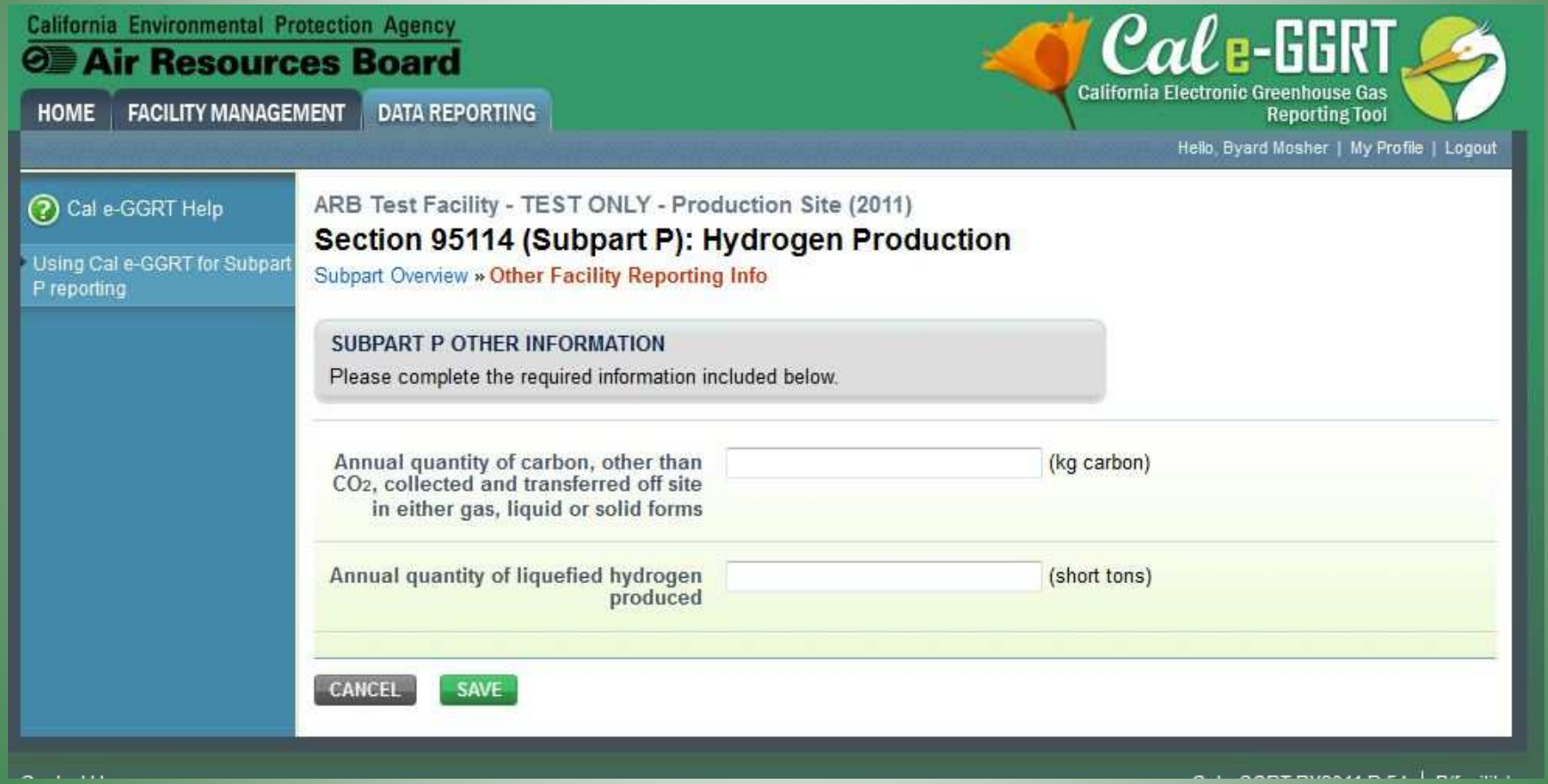
ADD a Unit Monitored by CEMS

Facility Overview

[1] A status of "Incomplete" means that one or more required data elements are incomplete. For details, refer to the Data Completeness

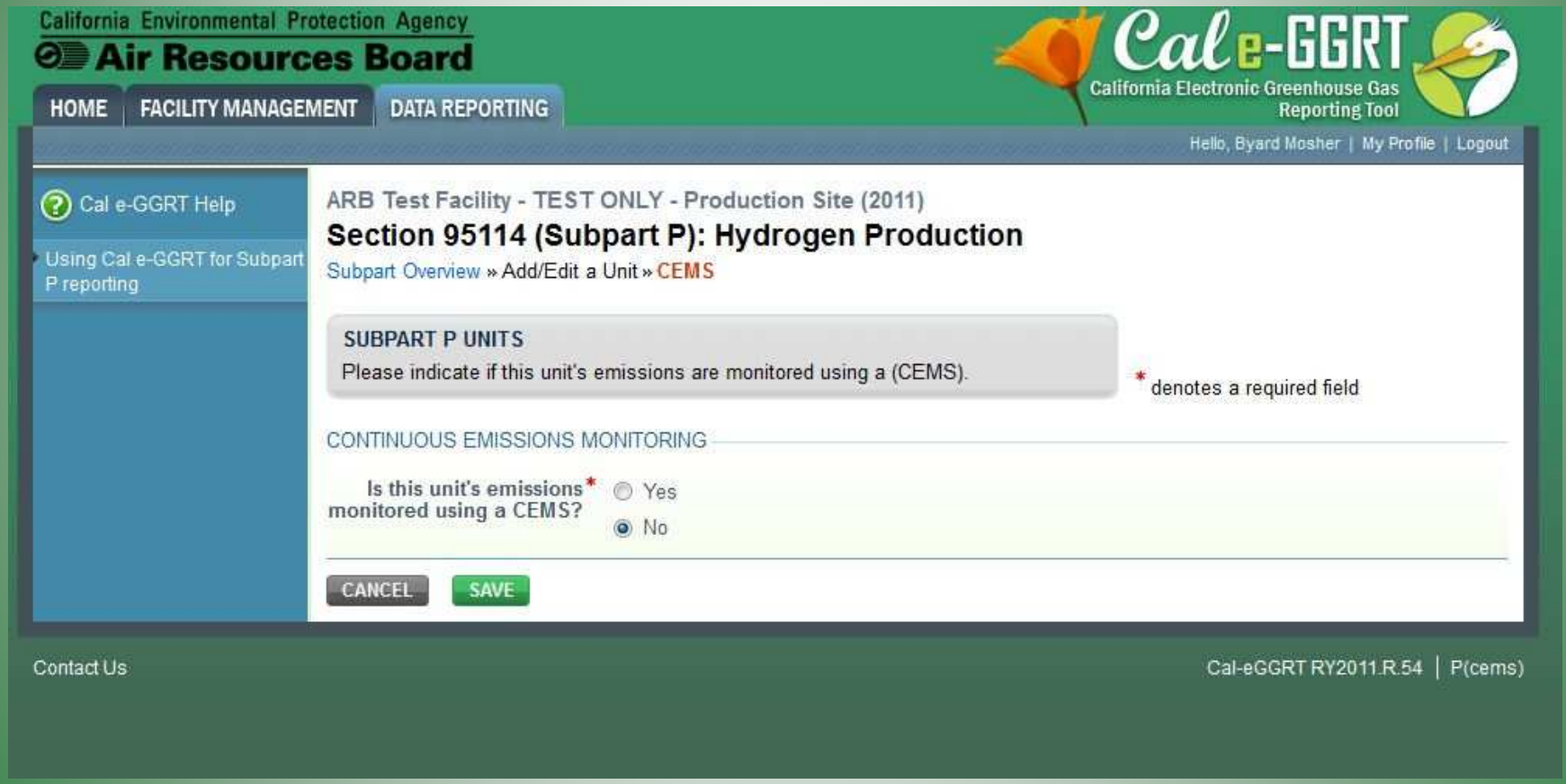
Reporting – Subpart P

(other facility info)



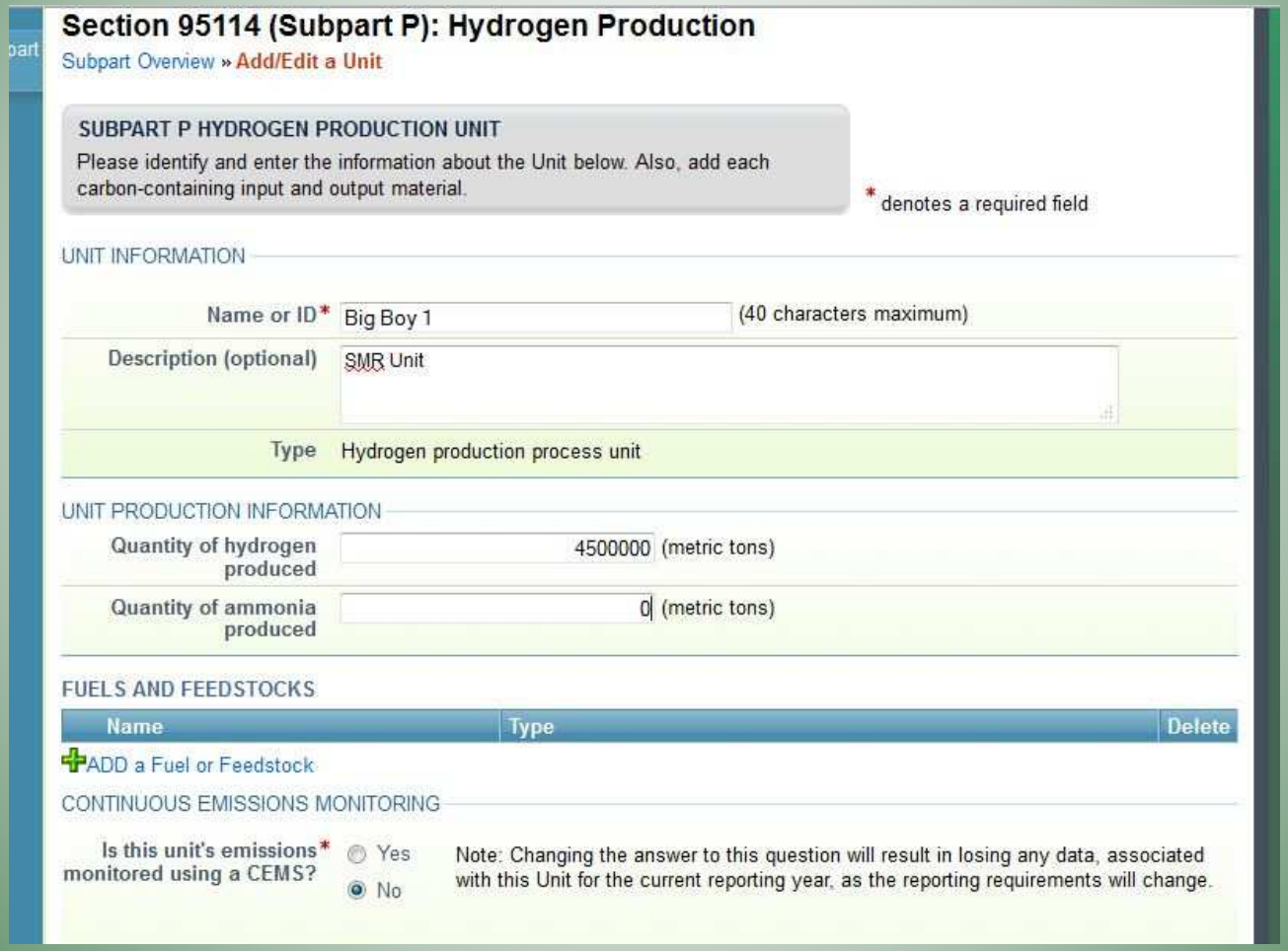
Reporting - SubpartP

(add a unit)



Reporting – Subpart P

(new unit)



Section 95114 (Subpart P): Hydrogen Production

Subpart Overview » Add/Edit a Unit

SUBPART P HYDROGEN PRODUCTION UNIT

Please identify and enter the information about the Unit below. Also, add each carbon-containing input and output material.

* denotes a required field

UNIT INFORMATION

Name or ID* Big Boy 1 (40 characters maximum)

Description (optional) SMR Unit

Type Hydrogen production process unit

UNIT PRODUCTION INFORMATION

Quantity of hydrogen produced 4500000 (metric tons)

Quantity of ammonia produced 0 (metric tons)

FUELS AND FEEDSTOCKS

Name	Type	Delete

ADD a Fuel or Feedstock

CONTINUOUS EMISSIONS MONITORING

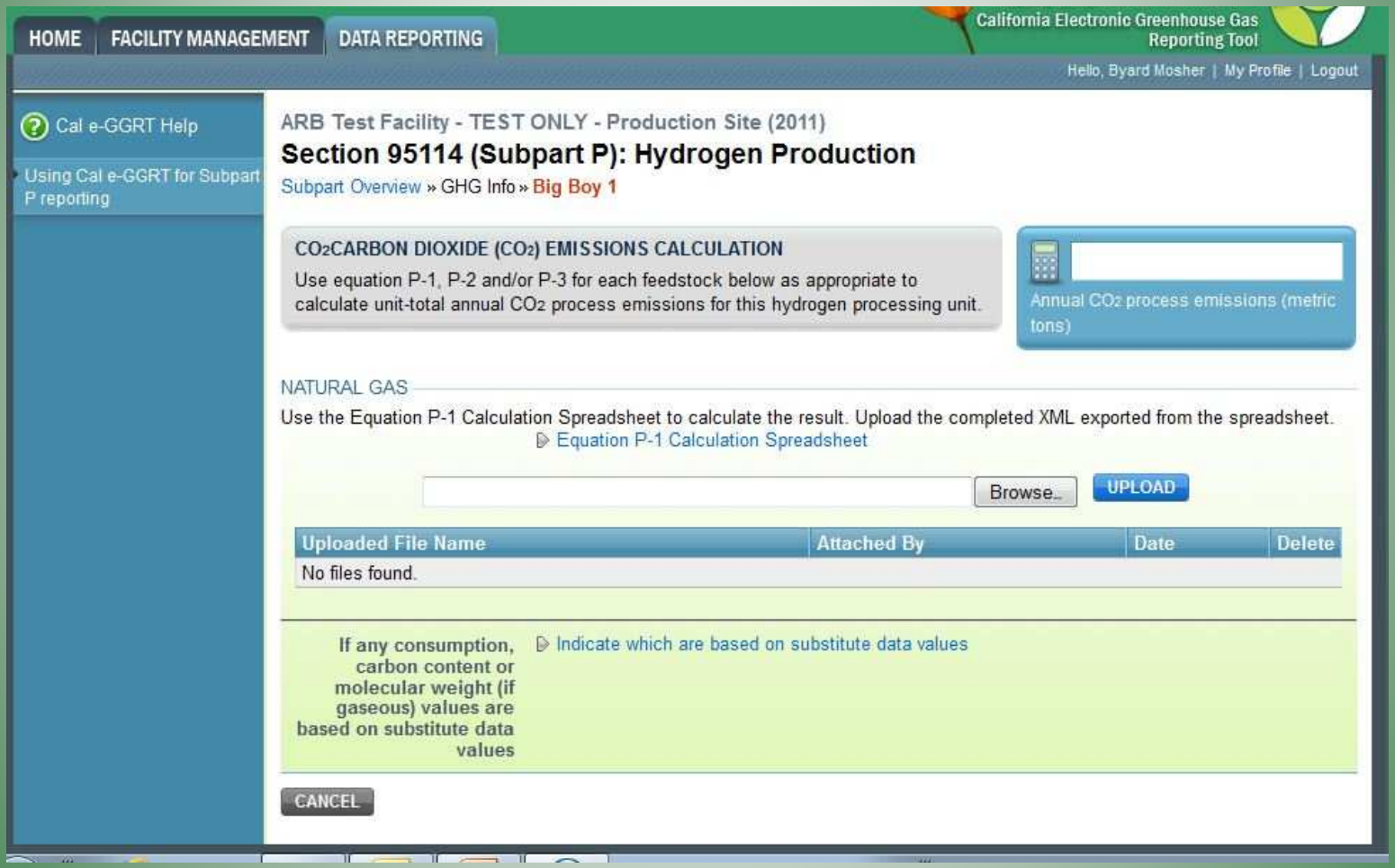
Is this unit's emissions monitored using a CEMS?* Yes / No

Note: Changing the answer to this question will result in losing any data, associated with this Unit for the current reporting year, as the reporting requirements will change.

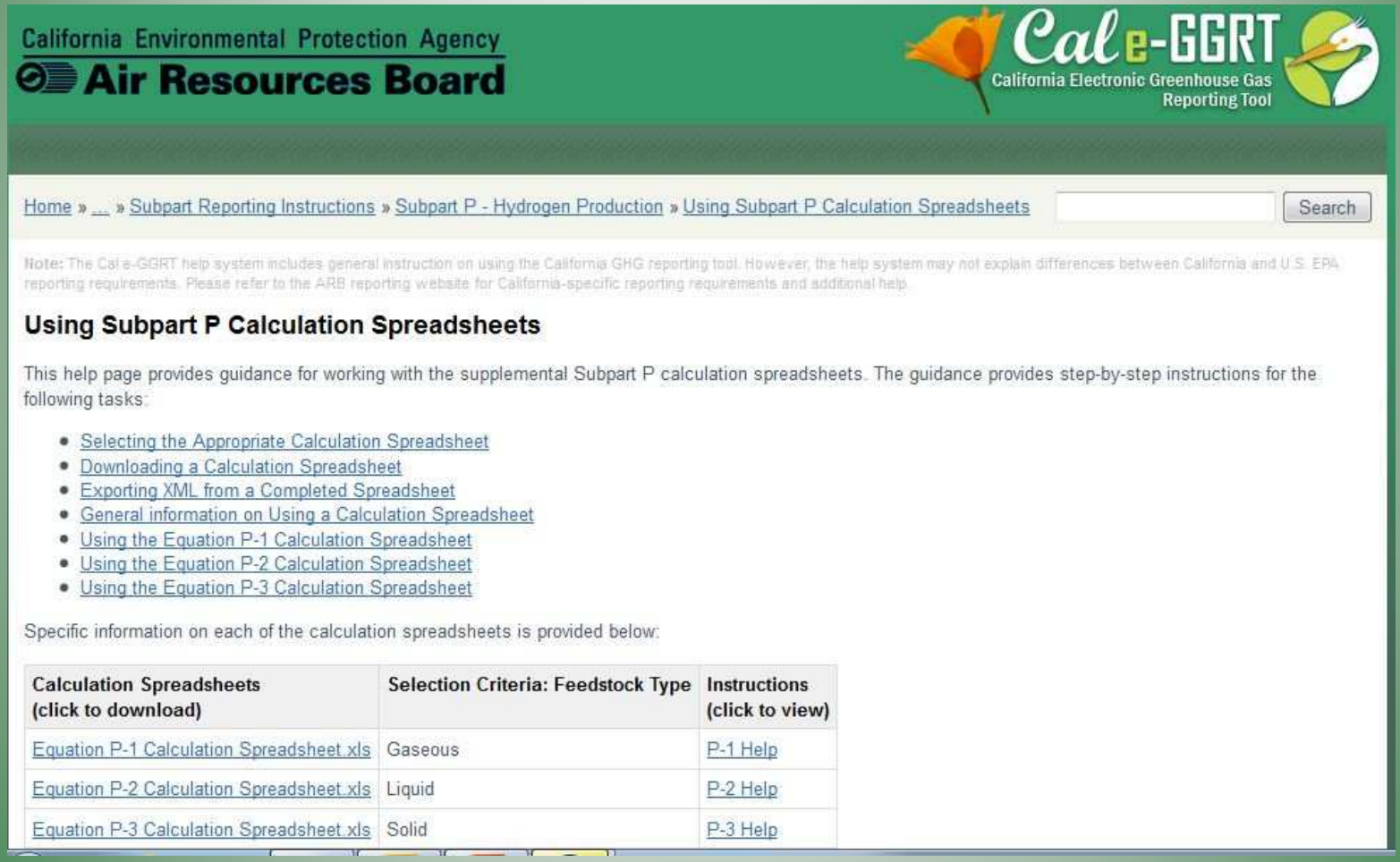
Reporting – Subpart P

(adding a fuel or feedstock)

Reporting – Subpart P



Reporting – Subpart P



California Environmental Protection Agency
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Cal e-GGRT
California Electronic Greenhouse Gas Reporting Tool

Home » ... » Subpart Reporting Instructions » Subpart P - Hydrogen Production » Using Subpart P Calculation Spreadsheets

Search

Note: The Cal e-GGRT help system includes general instruction 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 ARB reporting website for California-specific reporting requirements and additional help.

Using Subpart P Calculation Spreadsheets

This help page provides guidance for working with the supplemental Subpart P calculation spreadsheets. The guidance provides step-by-step instructions for the following tasks:

- Selecting the Appropriate Calculation Spreadsheet
- Downloading a Calculation Spreadsheet
- Exporting XML from a Completed Spreadsheet
- General information on Using a Calculation Spreadsheet
- Using the Equation P-1 Calculation Spreadsheet
- Using the Equation P-2 Calculation Spreadsheet
- Using the Equation P-3 Calculation Spreadsheet

Specific information on each of the calculation spreadsheets is provided below:

Calculation Spreadsheets (click to download)	Selection Criteria: Feedstock Type	Instructions (click to view)
Equation P-1 Calculation Spreadsheet.xls	Gaseous	P-1 Help
Equation P-2 Calculation Spreadsheet.xls	Liquid	P-2 Help
Equation P-3 Calculation Spreadsheet.xls	Solid	P-3 Help

Reporting – Subpart P

Calculation Spreadsheets (click to download)	Selection Criteria: Feedstock Type	Instructions (click to view)
Equation P-1 Calculation Spreadsheet.xls	Gaseous	P-1 Help
Equation P-2 Calculation Spreadsheet.xls	Liquid	P-2 Help
Equation P-3 Calculation Spreadsheet.xls	Solid	P-3 Help

Selecting the Appropriate Calculation Spreadsheet

Subpart P requires a facility to report annual CO_2 emissions from each hydrogen production process unit. To calculate the annual CO_2 emissions from each hydrogen production process unit, users must use one or more of three equations based on the unit feedstock consumed during the data collection year. Users may use different calculation worksheets for different process units as required by the feedstock type for each unit. Users may use more than one calculation worksheet for a process unit if the unit has more than one type of feedstock.

For each process unit with a gaseous feedstock, users should calculate annual CO_2 emissions using Equation P-1 via the Equation P-1 Calculation Worksheet. Equation P-1 is provided below:

(Equation P-1)

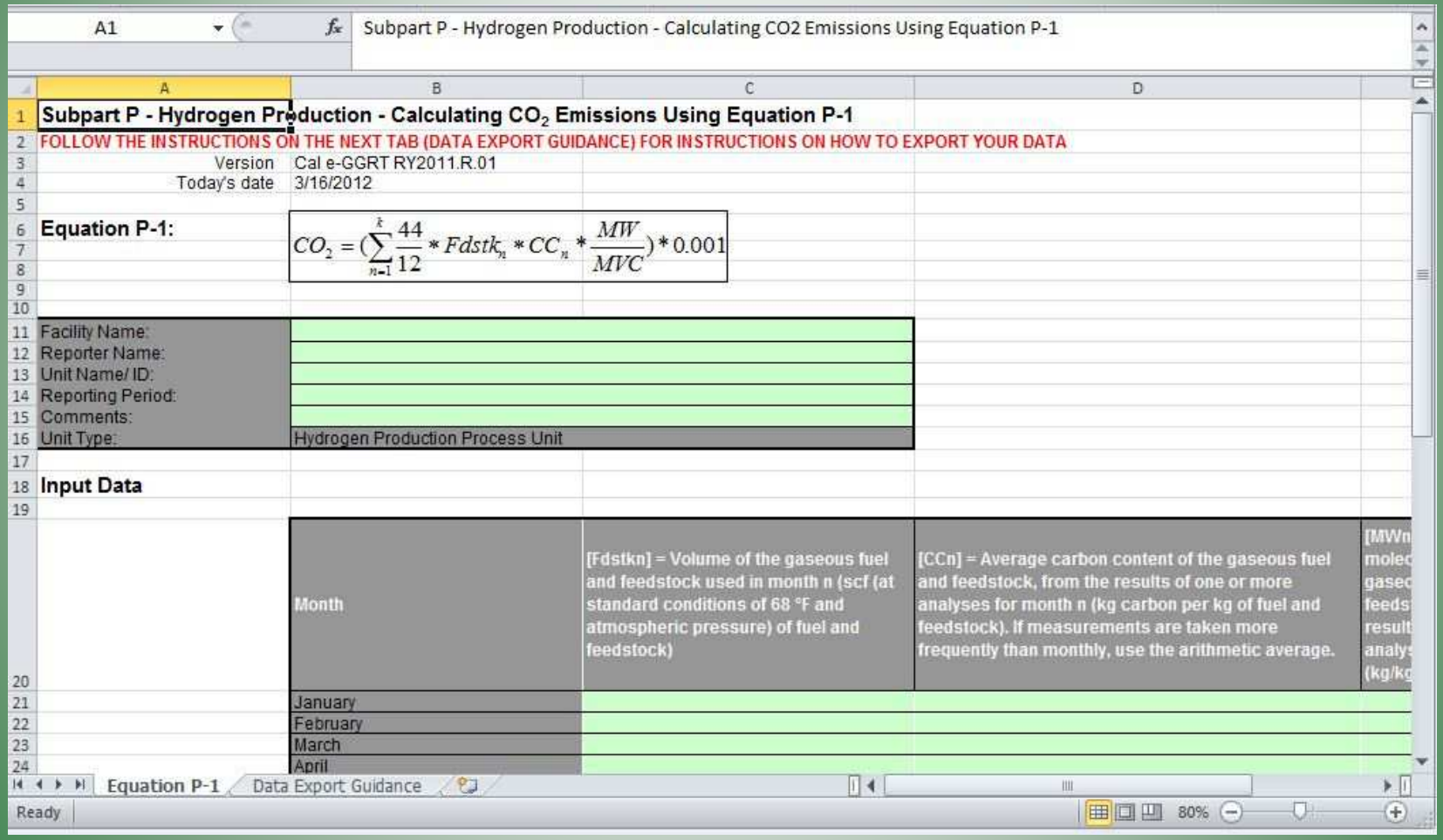
$$CO_2 = \left(\sum_{n=1}^{k} \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC} \right) * 0.001$$

For each process unit with a liquid feedstock, users should calculate annual CO_2 emissions using Equation P-2 via the Equation P-2 Calculation Worksheet. Equation P-2 is provided below:

(Equation P-2)

$$CO_2 = \left(\sum_{n=1}^{k} \frac{44}{12} * Fdstk_n * CC_n \right) * 0.001$$

Reporting – Subpart P



A1 — Subpart P - Hydrogen Production - Calculating CO2 Emissions Using Equation P-1

Subpart P - Hydrogen Production - Calculating CO_2 Emissions Using Equation P-1

FOLLOW THE INSTRUCTIONS ON THE NEXT TAB (DATA EXPORT GUIDANCE) FOR INSTRUCTIONS ON HOW TO EXPORT YOUR DATA

Version	Cal e-GGRT RY2011.R.01
Today's date	3/16/2012

Equation P-1:

$$CO_2 = \left(\sum_{n=1}^{k} \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC}\right) * 0.001$$

Facility Name:	
Reporter Name:	
Unit Name/ ID:	
Reporting Period:	
Comments:	
Unit Type:	Hydrogen Production Process Unit

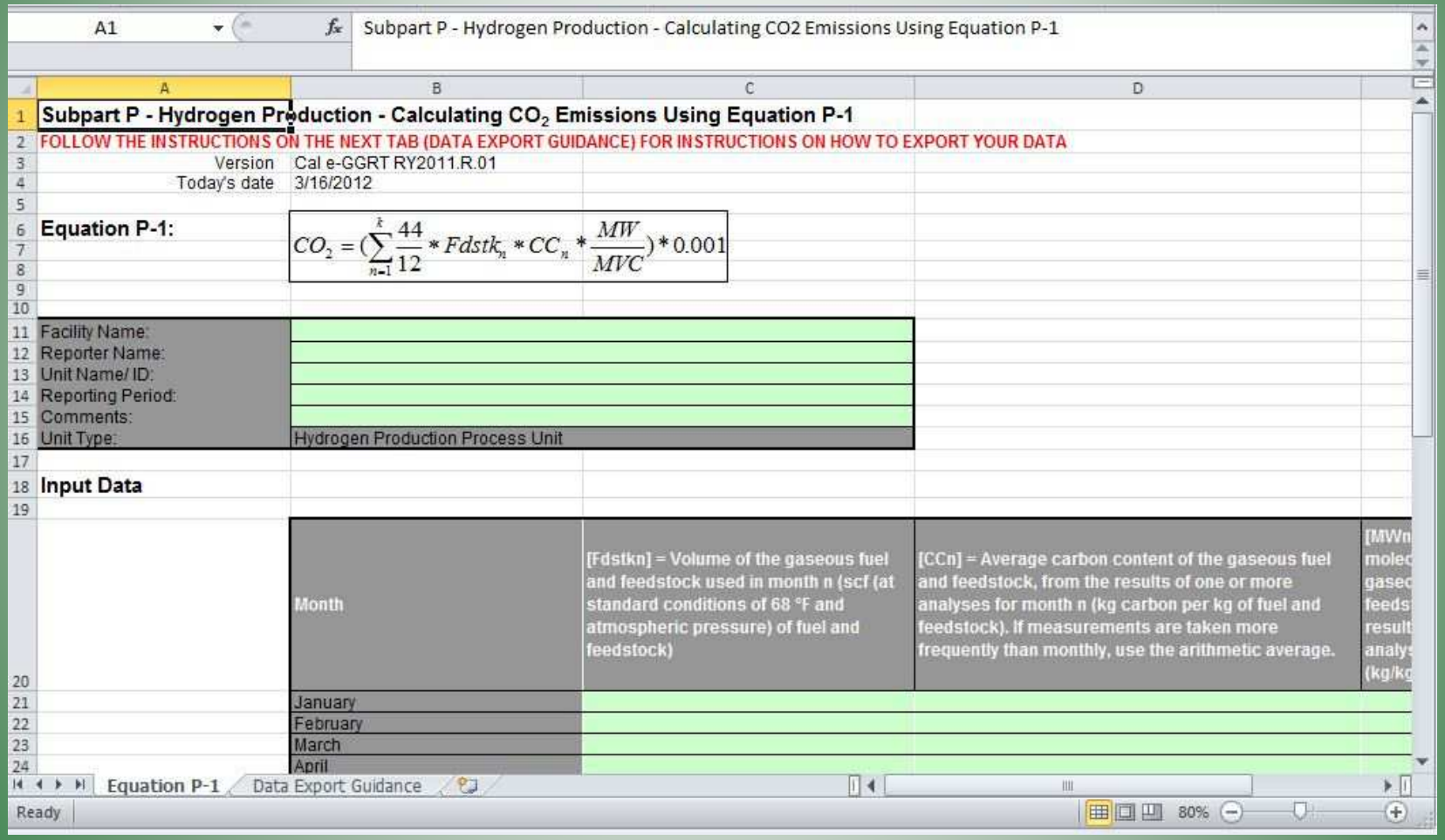
Input Data

Month	[Fdstkn] = Volume of the gaseous fuel and feedstock used in month n (scf (at standard conditions of 68 °F and atmospheric pressure) of fuel and feedstock)	[CCn] = Average carbon content of the gaseous fuel and feedstock, from the results of one or more analyses for month n (kg carbon per kg of fuel and feedstock). If measurements are taken more frequently than monthly, use the arithmetic average.	[MWn molec gasec feeds result analy (kg/kg
January			
February			
March			
April			

Equation P-1 | Data Export Guidance

Ready — 80%

Reporting – Subpart P



A1 — Subpart P - Hydrogen Production - Calculating CO2 Emissions Using Equation P-1

Subpart P - Hydrogen Production - Calculating CO_2 Emissions Using Equation P-1

FOLLOW THE INSTRUCTIONS ON THE NEXT TAB (DATA EXPORT GUIDANCE) FOR INSTRUCTIONS ON HOW TO EXPORT YOUR DATA

Version	Cal e-GGRT RY2011.R.01
Today's date	3/16/2012

Equation P-1:

$$CO_2 = \left(\sum_{n=1}^{k} \frac{44}{12} * Fdstk_n * CC_n * \frac{MW}{MVC}\right) * 0.001$$

Facility Name:	
Reporter Name:	
Unit Name/ ID:	
Reporting Period:	
Comments:	
Unit Type:	Hydrogen Production Process Unit

Input Data

Month	[Fdstkn] = Volume of the gaseous fuel and feedstock used in month n (scf (at standard conditions of 68 °F and atmospheric pressure) of fuel and feedstock)	[CCn] = Average carbon content of the gaseous fuel and feedstock, from the results of one or more analyses for month n (kg carbon per kg of fuel and feedstock). If measurements are taken more frequently than monthly, use the arithmetic average.	[MWn molec gasec feeds result analy (kg/kg
January			
February			
March			
April			

Equation P-1 | Data Export Guidance

Ready — 80%

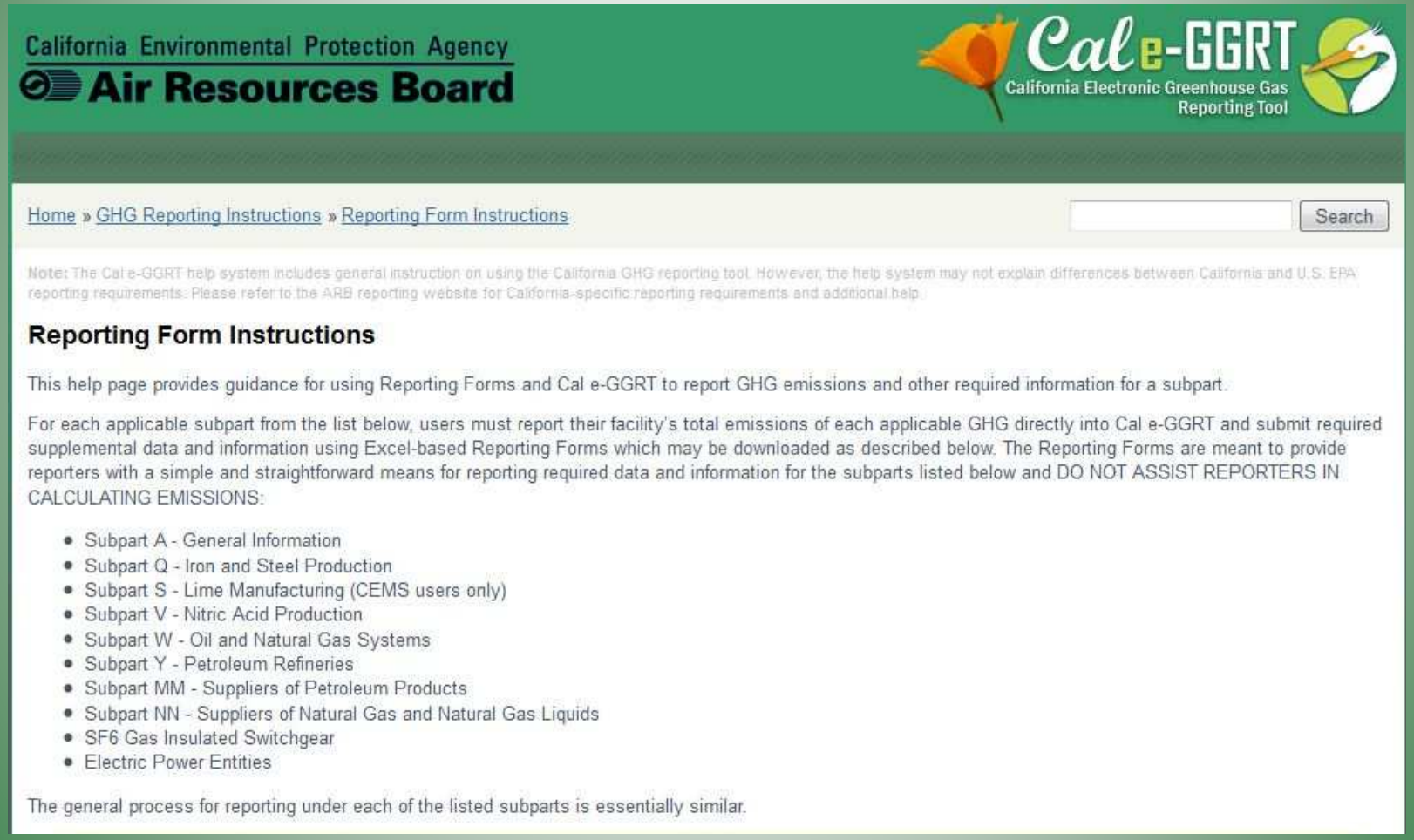
Reporting – Subpart P

Additional Information for Hydrogen Producers who also report as Suppliers of Carbon Dioxide

- Does your facility capture and sell CO_2?
- If you are required to report under Subpart PP (Suppliers of CO_2)- there is the possibility of double-counting "transferred CO_2" 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.

Reporting – Subpart MM

Reporting – Subpart MM



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California Electronic Greenhouse Gas Reporting Tool

Home » GHG Reporting Instructions » Reporting Form Instructions

Search

Note: The Cal e-GGRT help system includes general instruction 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 ARB 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-GGRT 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-GGRT 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
- SF6 Gas Insulated Switchgear
- Electric Power Entities

The general process for reporting under each of the listed subparts is essentially similar.

Reporting – Subpart MM

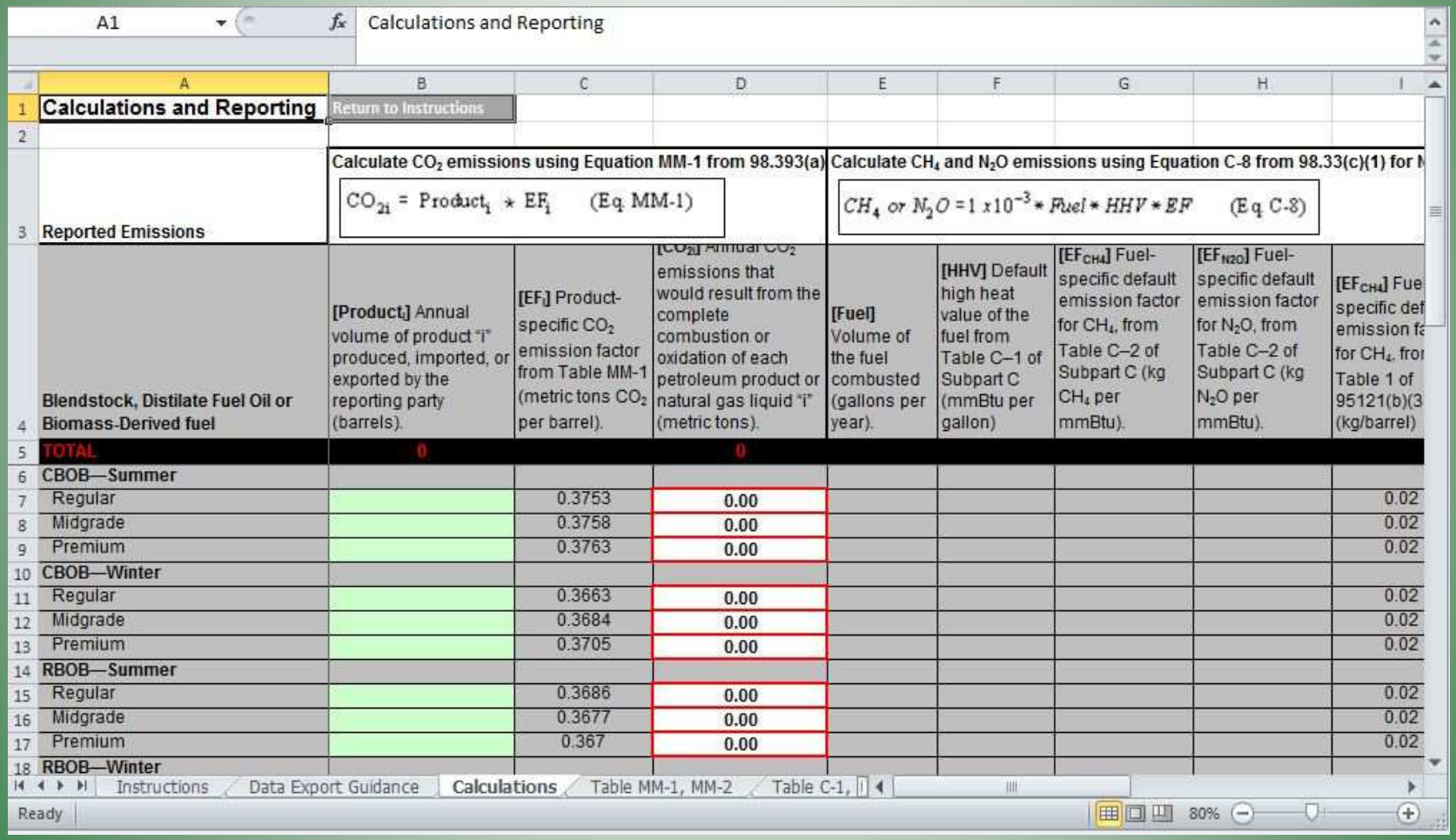
	Tool.xls		
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Activity Data Workbook.xls	n/a	XLS
W - Petroleum and Natural Gas Systems	Petroleum and Natural Gas Systems Calculation Tool.xls	n/a	n/a
Y - Petroleum Refineries	Subpart Y Additional Production Data and Solomon Energy Efficiency 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
SF6 Gas Insulated Switchgears	SF6 Gas Insulated Switchgear (GIS) Reporting.xls	n/a	XLS
Electric Power Entities	Workbook 1 - Electricity Imports and Exports (beta-test version).xls	carb_epe_import_export.xsd	XML
Electric Power Entities	Workbook 2 EPE Supplementary Data for MJRP.xls *(coming soon)*	n/a	XLS
Electric Power Entities	Workbook 3 EPE Supplementary Data for WAPA and DWR SWP.xls *(coming soon)*	n/a	XLS
Electric Power Entities	Workbook 4 EPE Optional Asset Controlling Supplier Report (BPA only).xls *(coming soon)*	n/a	XLS

Once all applicable Reporting Forms have been saved to your computer, open each file and enter the required information according to the general help provided below and the instructions provided within each Reporting Form. Always remember to save each completed Reporting Form when finished.

Reporting Forms General Help

The guidance provided in this section applies to all reporting forms. Additional subpart-specific guidance is provided within the reporting form(s) for each subpart.

Reporting - Subpart MM



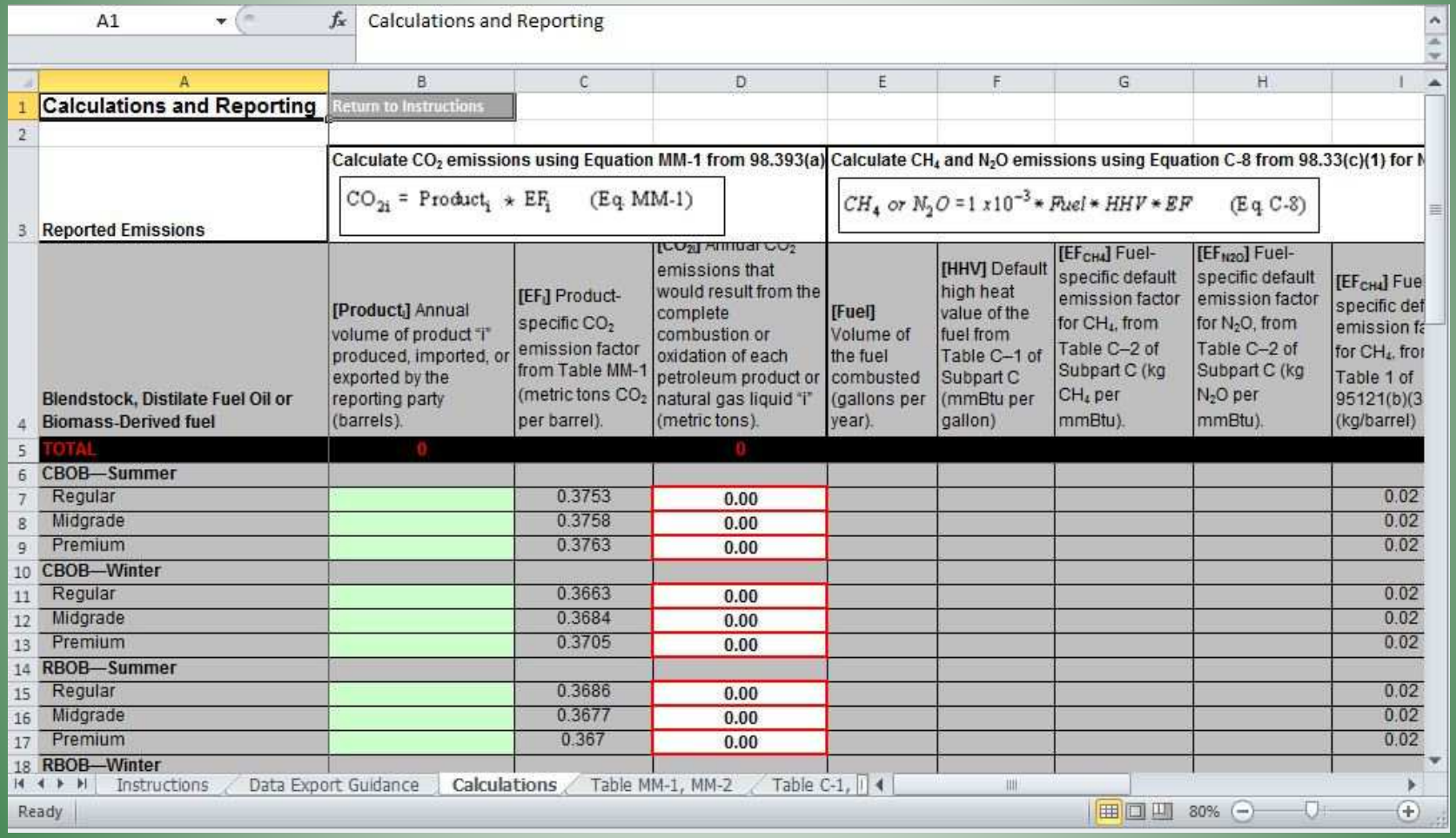
A1 | Calculations and Reporting

	A	B	C	D	E	F	G	H	I
1	**Calculations and Reporting**	Return to Instructions							
2									
3	**Reported Emissions**	**Calculate CO_2 emissions using Equation MM-1 from 98.393(a)** $CO_{2i} = Product_i * EF_i$ (Eq. MM-1)			**Calculate CH_4 and N_2O emissions using Equation C-8 from 98.33(c)(1) for N** CH_4 or $N_2O = 1 \times 10^{-3} * Fuel * HHV * EF$ (Eq. C-8)				
4	**Blendstock, Distillate Fuel Oil or Biomass-Derived fuel**	**[Product$_i$]** Annual volume of product "i" produced, imported, or exported by the reporting party (barrels).	**[EF$_i$]** Product-specific CO_2 emission factor from Table MM-1 (metric tons CO_2 per barrel).	**[CO_{2i}]** Annual CO_2 emissions that would result from the complete combustion or oxidation of each petroleum product or natural gas liquid "i" (metric tons).	**[Fuel]** Volume of the fuel combusted (gallons per year).	**[HHV]** Default high heat value of the fuel from Table C–1 of Subpart C (mmBtu per gallon)	**[EF_{CH4}]** Fuel-specific default emission factor for CH_4, from Table C–2 of Subpart C (kg CH_4 per mmBtu).	**[EF_{N2O}]** Fuel-specific default emission factor for N_2O, from Table C–2 of Subpart C (kg N_2O per mmBtu).	**[EF_{CH4}]** Fue specific def emission fa for CH_4, fro Table 1 of 95121(b)(3 (kg/barrel)
5	TOTAL	0		0					
6	CBOB—Summer								
7	Regular		0.3753	0.00					0.02
8	Midgrade		0.3758	0.00					0.02
9	Premium		0.3763	0.00					0.02
10	CBOB—Winter								
11	Regular		0.3663	0.00					0.02
12	Midgrade		0.3684	0.00					0.02
13	Premium		0.3705	0.00					0.02
14	RBOB—Summer								
15	Regular		0.3686	0.00					0.02
16	Midgrade		0.3677	0.00					0.02
17	Premium		0.367	0.00					0.02
18	RBOB—Winter								

Instructions | Data Export Guidance | Calculations | Table MM-1, MM-2 | Table C-1,

Ready | 80%

Reporting - Subpart MM



A1 | Calculations and Reporting

	A	B	C	D	E	F	G	H	I
1	**Calculations and Reporting**	Return to Instructions							
2									
3	**Reported Emissions**	**Calculate CO_2 emissions using Equation MM-1 from 98.393(a)** $CO_{2i} = Product_i * EF_i$ (Eq. MM-1)			**Calculate CH_4 and N_2O emissions using Equation C-8 from 98.33(c)(1) for N** CH_4 or $N_2O = 1 \times 10^{-3} * Fuel * HHV * EF$ (Eq. C-8)				
4	**Blendstock, Distillate Fuel Oil or Biomass-Derived fuel**	**[Product$_i$]** Annual volume of product "i" produced, imported, or exported by the reporting party (barrels).	**[EF$_i$]** Product-specific CO_2 emission factor from Table MM-1 (metric tons CO_2 per barrel).	**[CO_{2i}]** Annual CO_2 emissions that would result from the complete combustion or oxidation of each petroleum product or natural gas liquid "i" (metric tons).	**[Fuel]** Volume of the fuel combusted (gallons per year).	**[HHV]** Default high heat value of the fuel from Table C–1 of Subpart C (mmBtu per gallon)	**[EF_{CH4}]** Fuel-specific default emission factor for CH_4, from Table C–2 of Subpart C (kg CH_4 per mmBtu).	**[EF_{N2O}]** Fuel-specific default emission factor for N_2O, from Table C–2 of Subpart C (kg N_2O per mmBtu).	**[EF_{CH4}]** Fue specific def emission fa for CH_4, fro Table 1 of 95121(b)(3 (kg/barrel)
5	TOTAL	0		0					
6	CBOB—Summer								
7	Regular		0.3753	0.00					0.02
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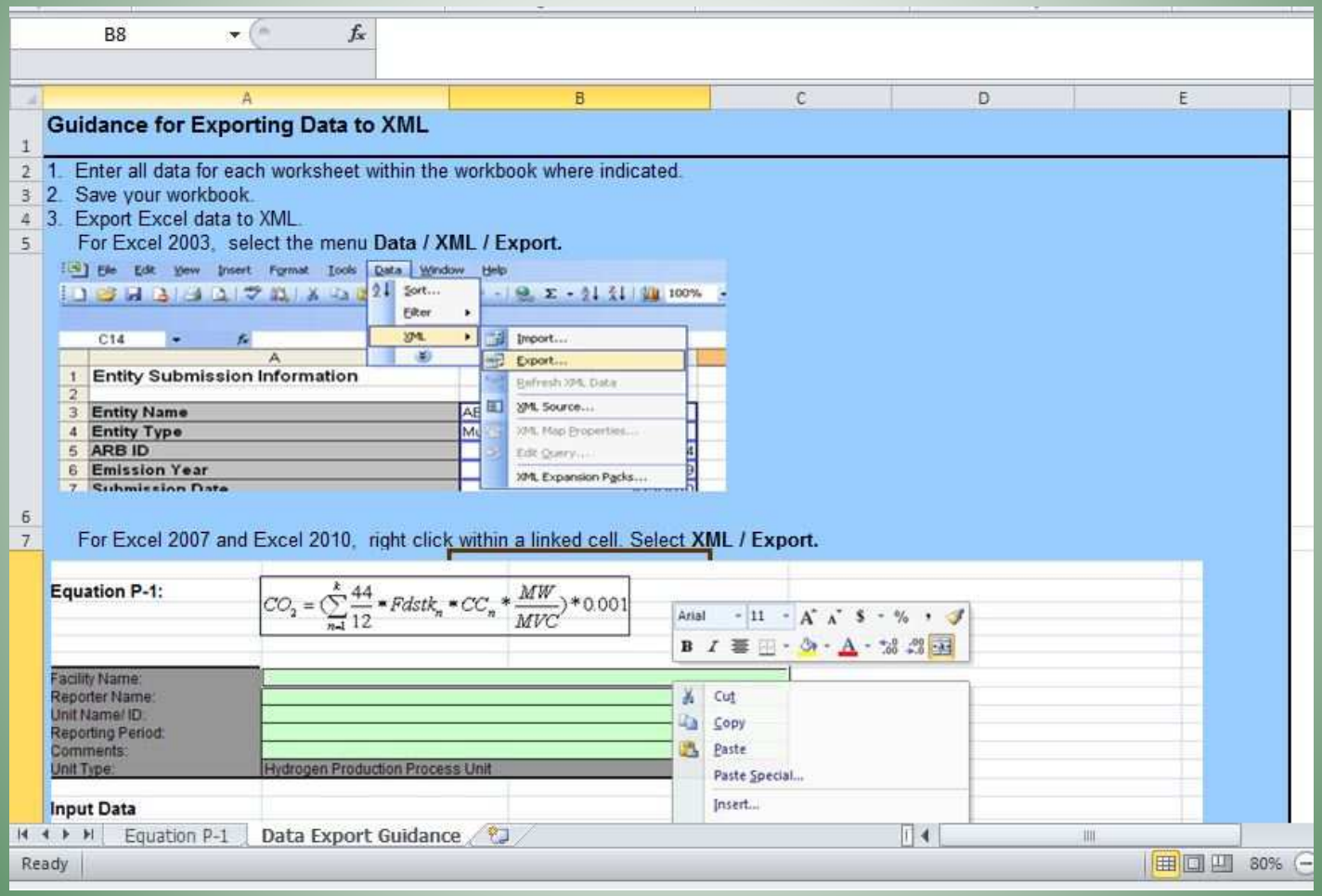
17	Premium		0.367	0.00					0.02
18	RBOB—Winter								

Instructions | Data Export Guidance | Calculations | Table MM-1, MM-2 | Table C-1,

Ready | 80%

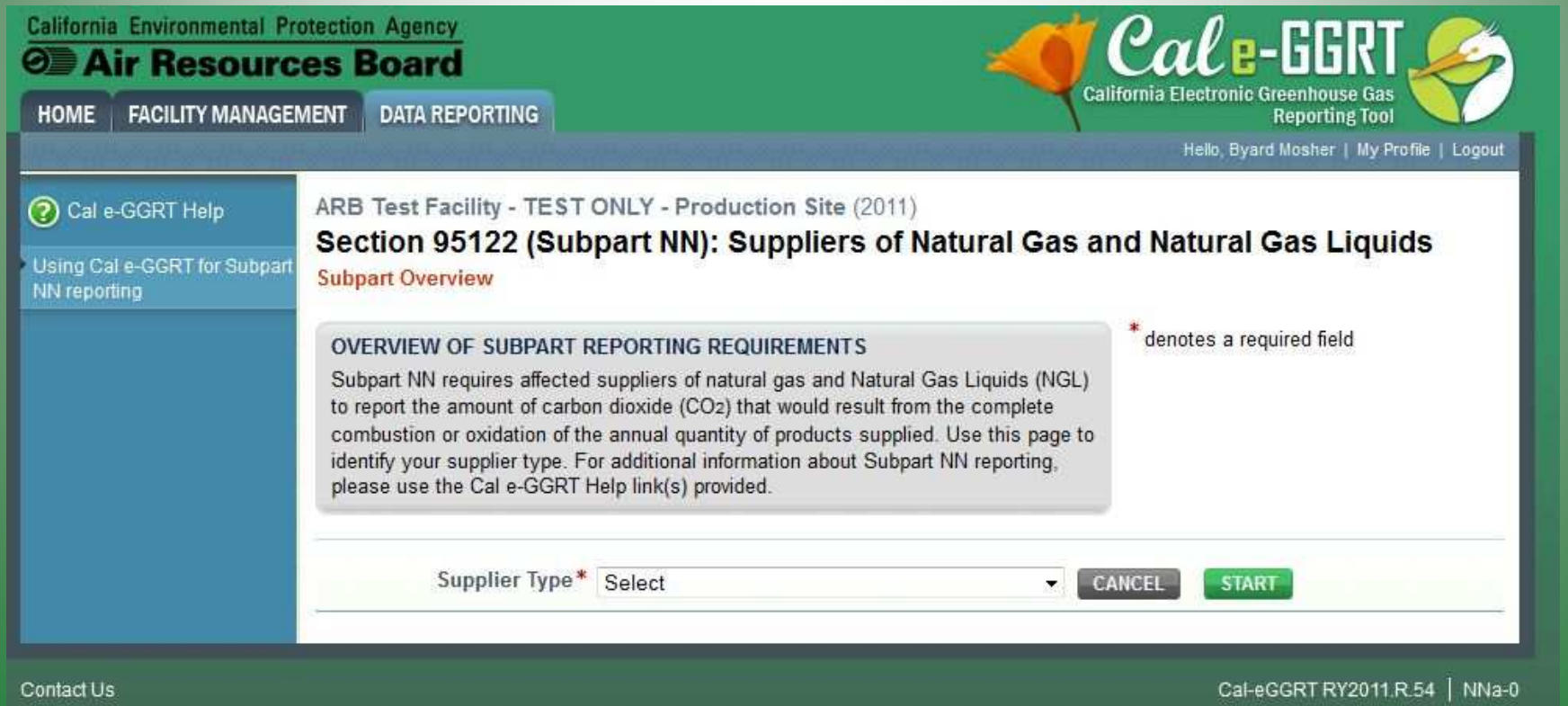
Reporting - Subpart MM



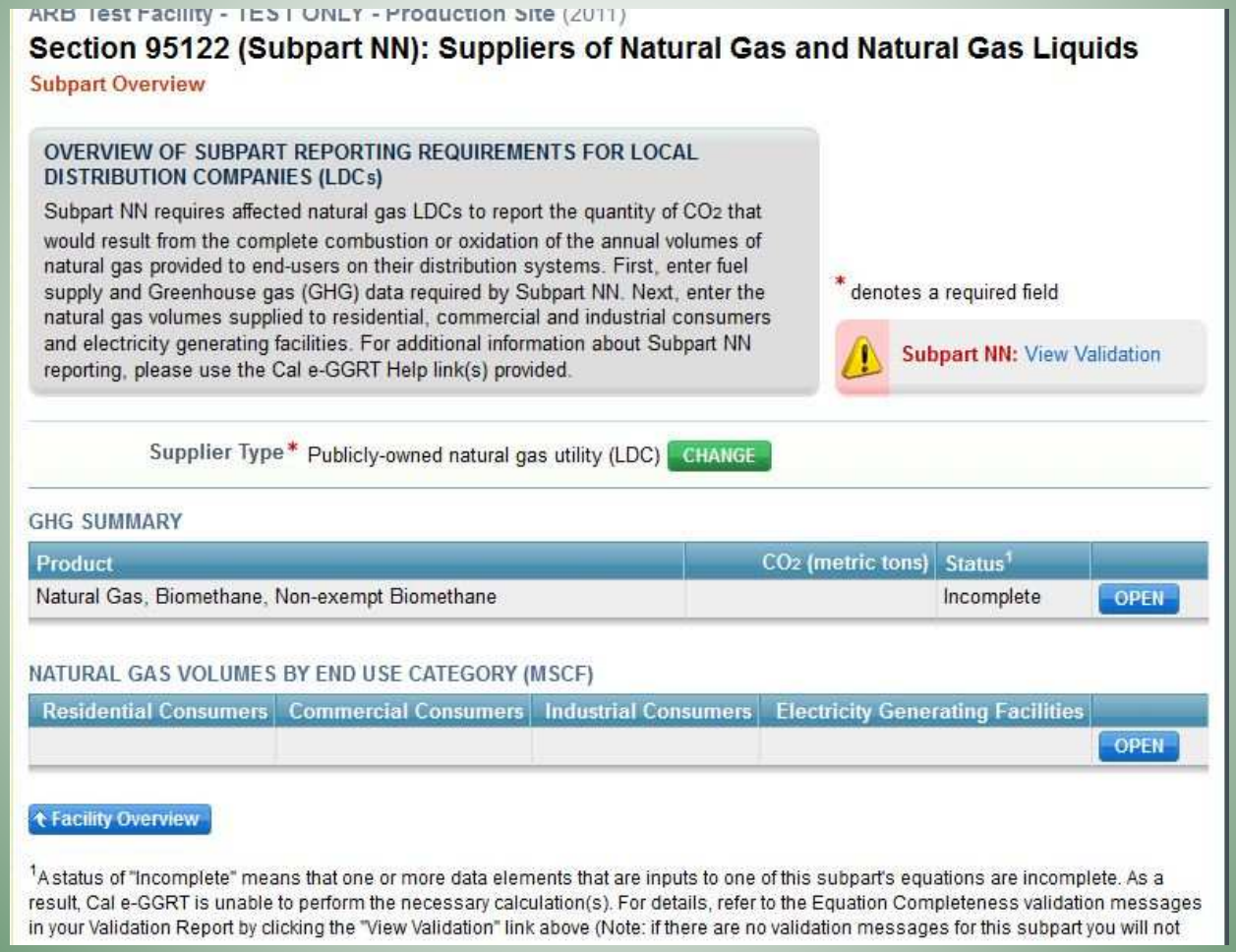
Reporting – Subpart NN

There are six Supplier Types:

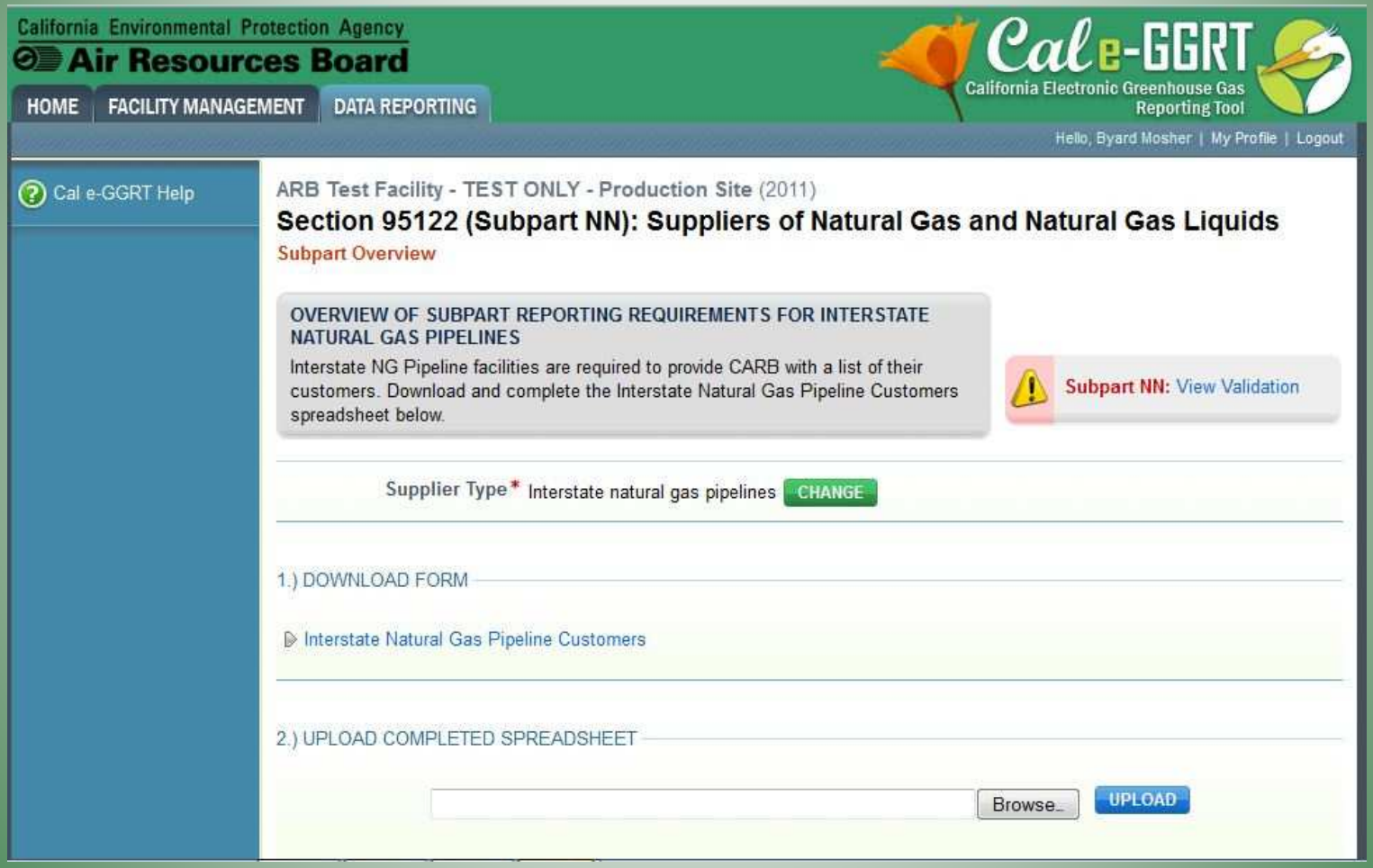
- Publically Owned Natural Gas utility (LDC)
- Public Utility Gas Corp[oration (LDC)
- Intrastate Natural Gas Pipelines (LDC)
- Interstate Natural Gas Pipelines
- Natural Gas Liquid Fractionator
- Liquefied Petroleum Gas Consignee



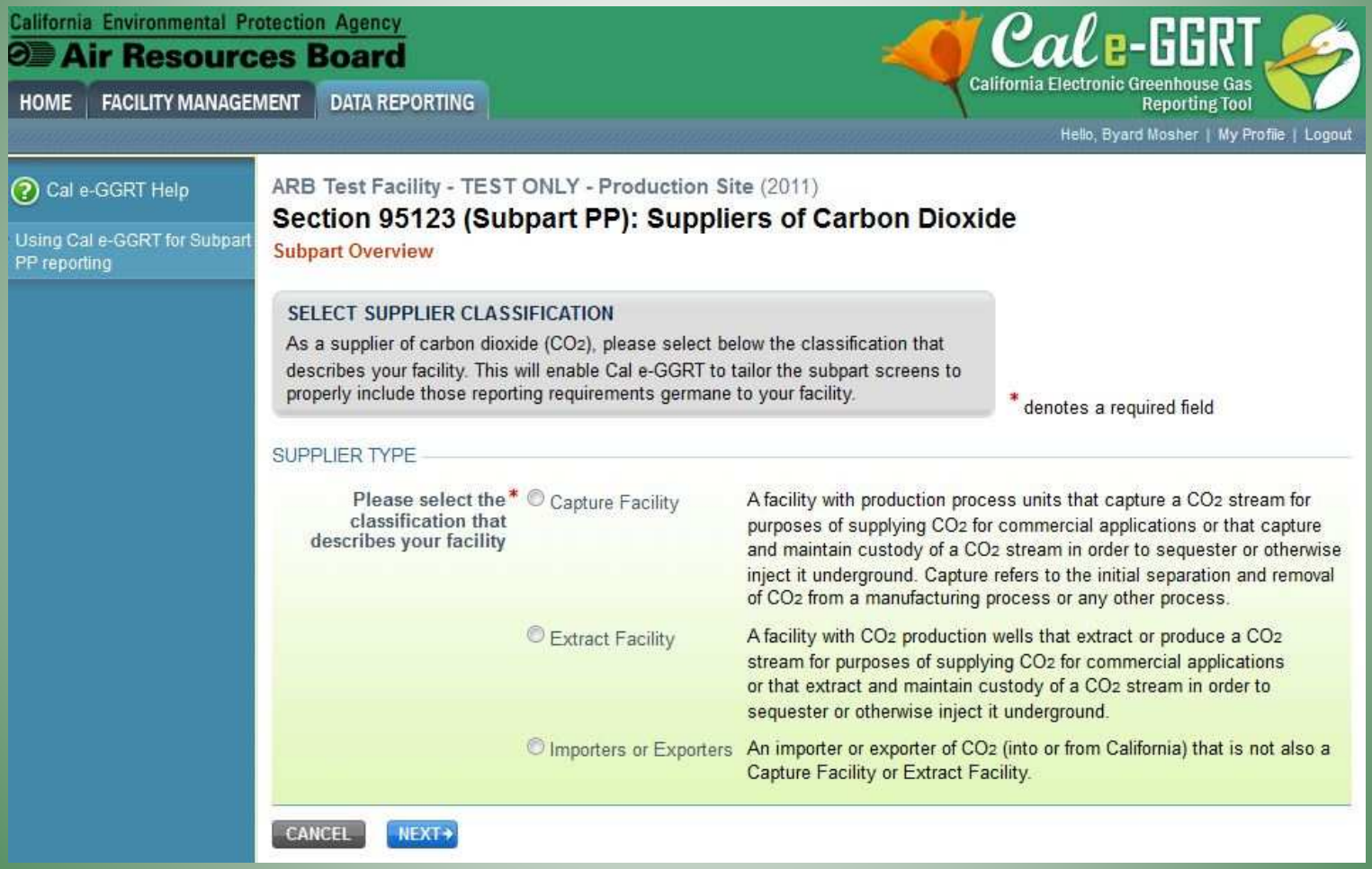
Reporting – Subpart NN



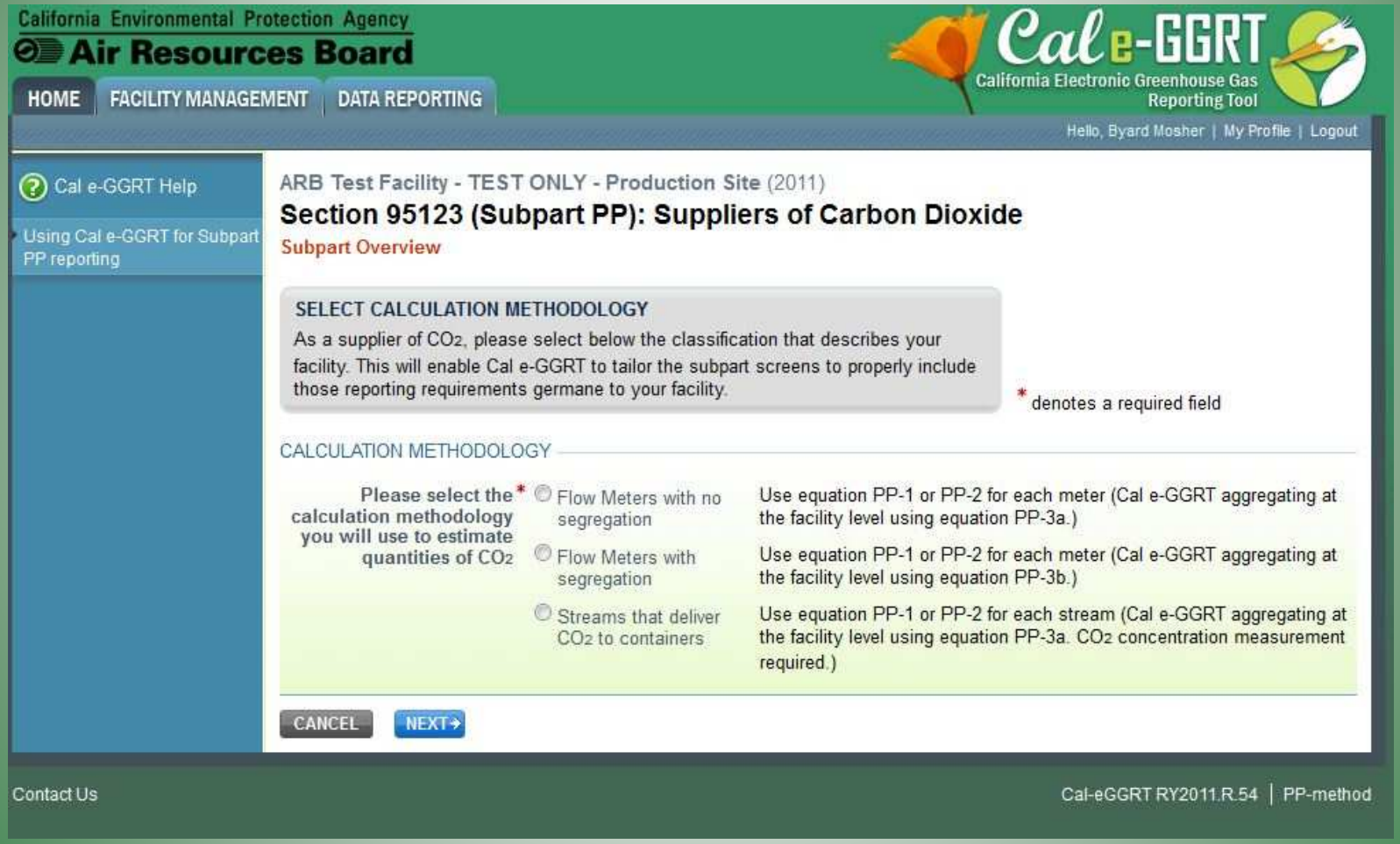
Reporting – Subpart NN



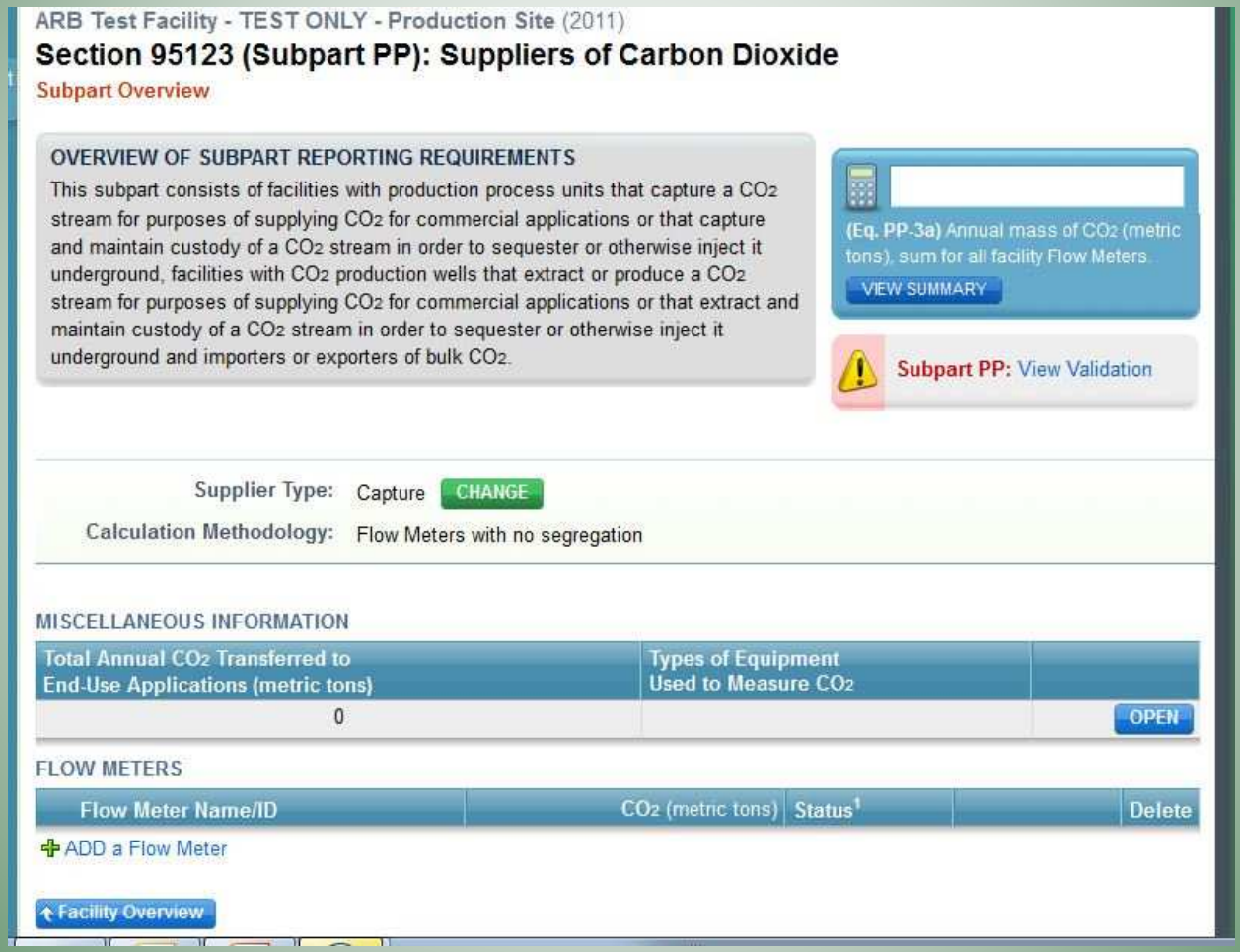
Reporting – Subpart PP



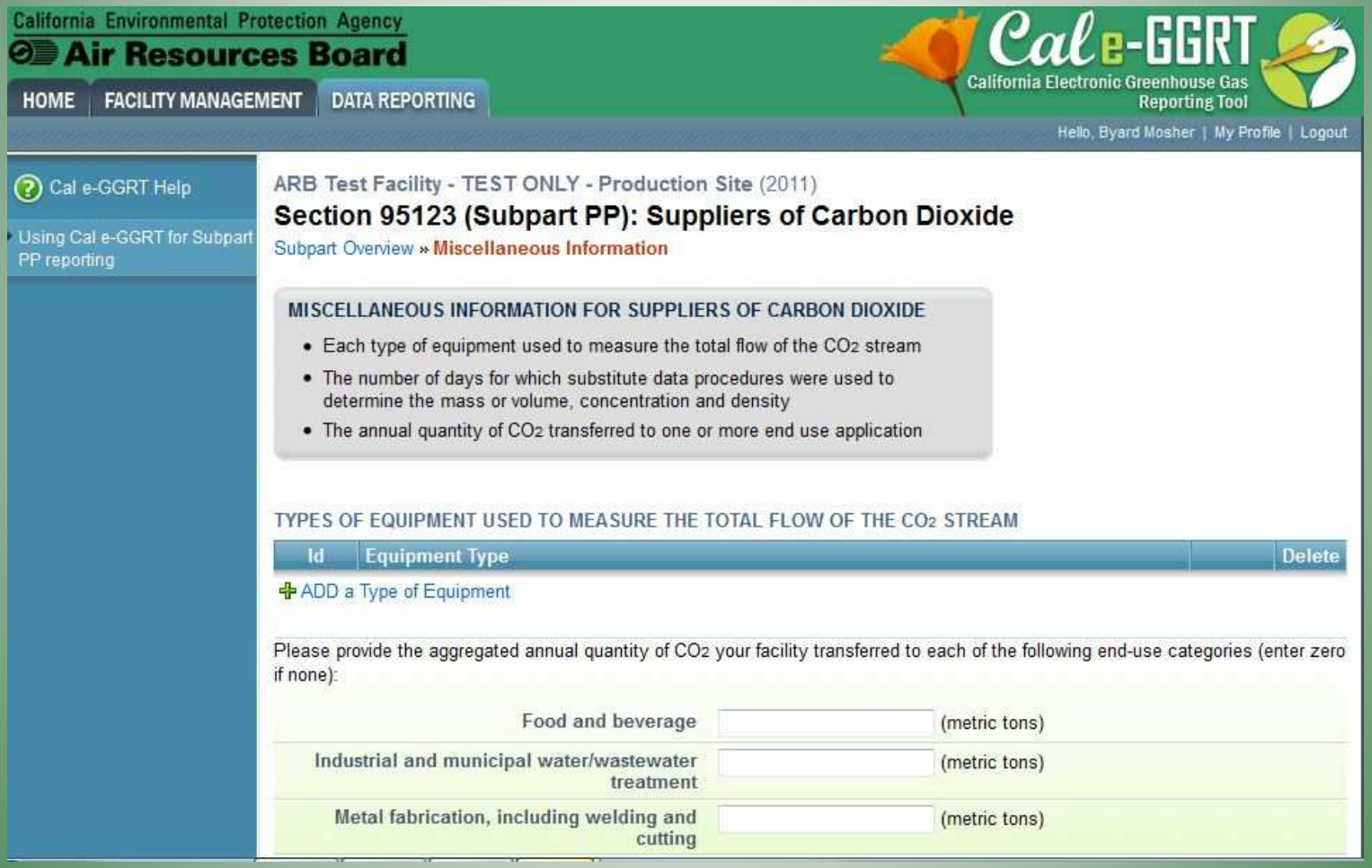
Reporting Subpart PP



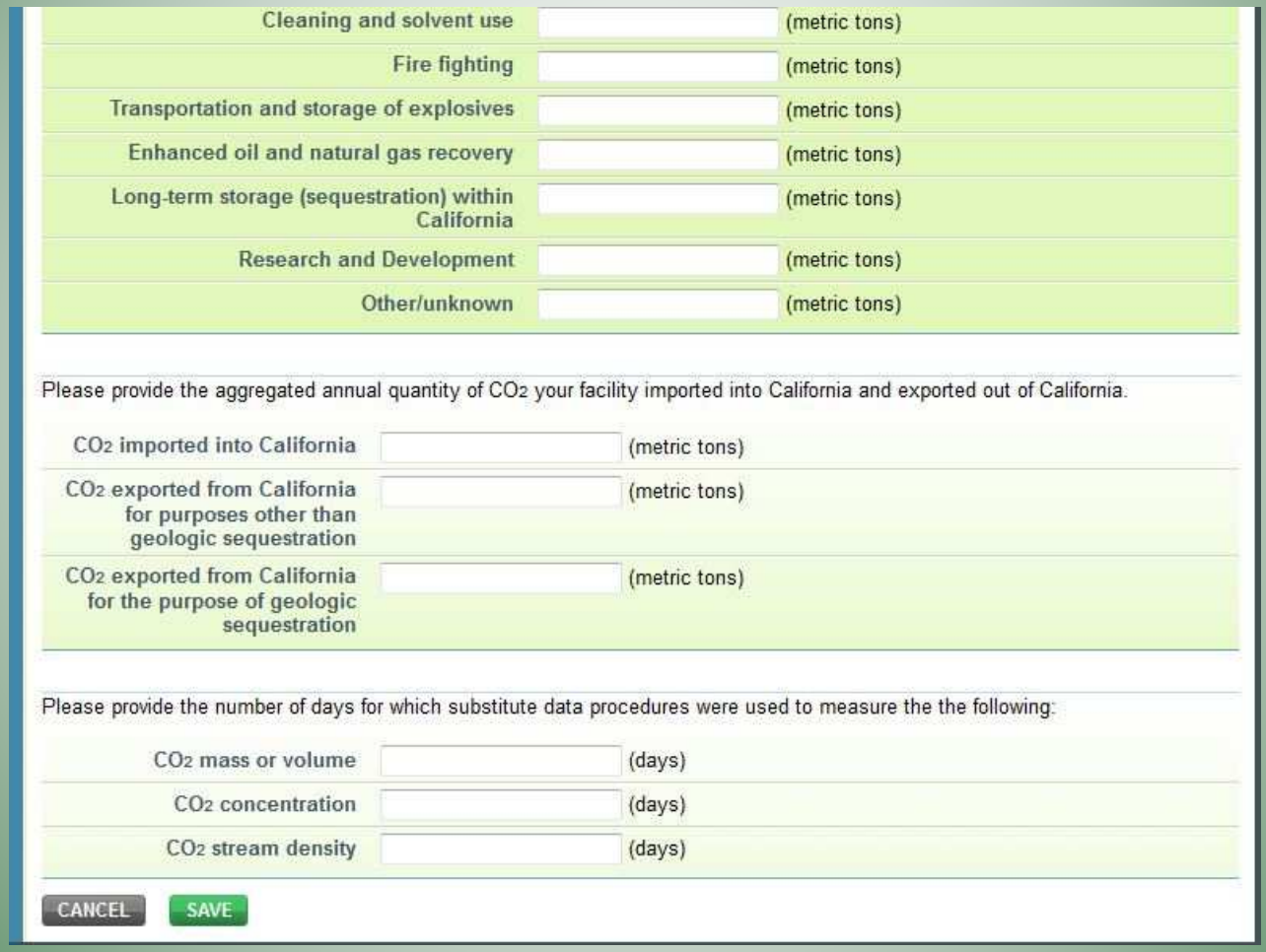
Reporting - Subpart PP



Reporting Subpart PP



Reporting - Subpart PP



Cleaning and solvent use		(metric tons)
Fire fighting		(metric tons)
Transportation and storage of explosives		(metric tons)
Enhanced oil and natural gas recovery		(metric tons)
Long-term storage (sequestration) within California		(metric tons)
Research and Development		(metric tons)
Other/unknown		(metric tons)

Please provide the aggregated annual quantity of CO_2 your facility imported into California and exported out of California.

CO_2 imported into California		(metric tons)
CO_2 exported from California for purposes other than geologic sequestration		(metric tons)
CO_2 exported from California for the purpose of geologic sequestration		(metric tons)

Please provide the number of days for which substitute data procedures were used to measure the the following:

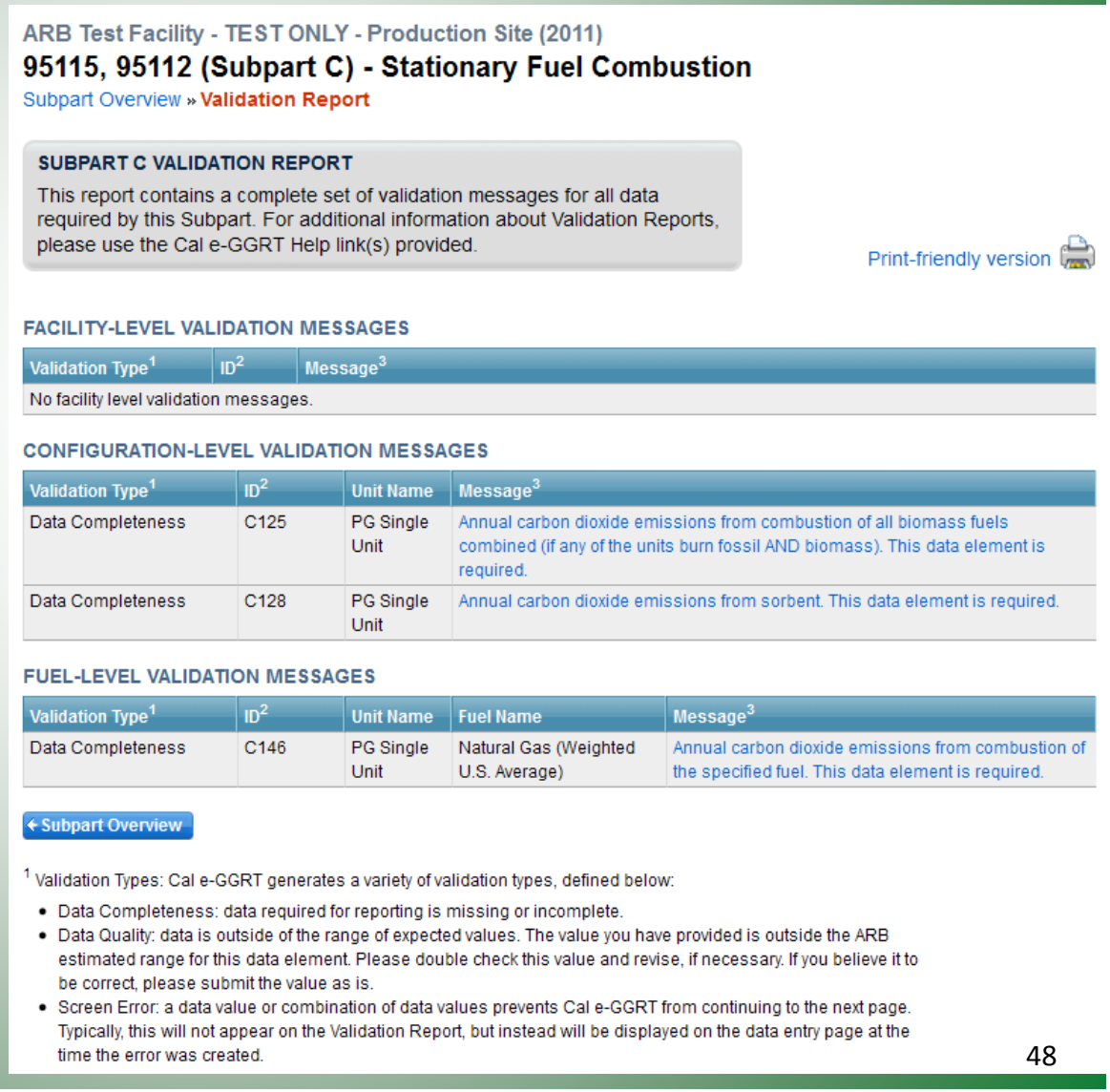
CO_2 mass or volume		(days)
CO_2 concentration		(days)
CO_2 stream density		(days)

CANCEL SAVE

Data Validation

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 link(s) provided.

Print-friendly version

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 Unit	Natural Gas (Weighted U.S. Average)	Annual carbon dioxide emissions from combustion of the specified fuel. This data element is required.

Subpart Overview

[1] Validation 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 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.

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

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

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