

Greenhouse Gas Industrial Reporting & Control Act -Webinar

Updates: 2016 GHG Emission Regulations and Single Window Reporting System

February 16, 2017



Webinar Context

Purpose

- Provide updates on regulations under GGIRCA
- Highlight changes to Single Window Reporting System (SWIM)
- Review lessons learned from last year's reporting cycle

Who might be interested?

- Reporting Operations
- Validation and Verification Bodies

Questions/Support

• GHGRegulator@gov.bc.ca

Agenda

Part 1: GHG Emission Regulations

- Emission Report
- Compliance Report
- Verification Requirements
- Administrative Penalties

Part 2: System Updates

- Single Window Reporting System (SWIM)
- BC GHG Updates for the 2016 cycle

Part 3: Lessons Learned

Part 1 - Reporting Regulation: Emission Report

• New for 2016 Reporting Year

 GHG Emission Reporting Regulation replaced the Reporting Regulation, effective January 1, 2016

Key Changes

- Clarification and rules for reporting with respect to:
 - Multiple Operators
 - Change in Control
- New reporting requirements for facility dispositions, closures and acquisitions

Part 1 - Reporting Regulation: Emission Report

Key Changes (continued)

- Alignment of emission report and verification due dates to May 31
- Schedule A:
 - Table 1 Single Facility Operation
 - New sources for petroleum refining
 - Addition of carbonate use
 - Table 2 Linear Facility Operation
 - Detailed oil and gas source types
 - Addition of LNG activities

Part 1 - Reporting Regulation: Compliance Report

Compliance Report

Now required for regulated operations (2016 reporting year)

Regulated Operation

 A reporting operation with an emission limit set out in the Schedule of the Act.

Attributable Emissions

 Emissions attributable to the regulated operation set out in section 4 of the Regulation.

Compliance Reporting

- Builds on emissions reporting by adding electricity used; total emissions attributable; difference between emissions and limit; compliance through available compliance units; and
- Adds specific-to-LNG requirements (e.g. amount of LNG)

Key Changes - Verification Process

- Verification body may not do verifications for an operation for more than 6 of last 9 reporting periods
- Director may refuse to accept a verification if the verification body is under investigation
- Operators may provide at one time 2 verification statements for emission reports for two consecutive reporting periods under certain conditions (delayed verification)

Delayed Verification - Conditions

- Verification statements have been positive and without qualifications for the 2 most recent reporting periods
- No significant changes to processes or activities at the facility or changes to the facility itself; and
- The operator includes a statement with the emission report certifying conditions are met

Delayed Verification – Criteria for Significance of Changes

- Single Facility Operations:
 - New processes, activities, or physical changes are considered significant
 - Replacement processes, activities or physical changes are considered significant if any of the following is true:
 - Change in production capacity is greater than 5%
 - Change in emissions after adjusting for energy inputs (fuel amounts etc.) is greater than 5%

compared to the previous year's emission report.

Delayed Verification – Criteria for Significance of Changes

- Linear Facilities Operations:
 - New processes, activities or physical changes are considered significant if any of the following is true:
 - Change in total production capacity is greater than 5%
 - Change in total emissions after adjusting for energy inputs (fuel amounts etc.) is greater than 5% compared to the previous year's emission report.
 - Replacement processes, activities or facilities are not considered significant changes

Part 1 - Administrative Penalties and Appeals Regulation

Penalties and Appeals

- Maximum \$50,000 administrative penalty for failure to submit:
 - emission report
 - compliance report
 - verification statement
 - supplementary report
- Regulation provides fair process rules:
 - notice of intent, and
 - opportunity to be heard
 - appeal to Environmental Appeal Board

Part 2 – System Updates: Single Window Reporting System

Single Window Reporting System (System)

- Website: https://ec.ss.ec.gc.ca

Current Modules

- SWIM (Single Window Information Manager) manages administrative information for programs
 - No major change made to SWIM module this cycle
- BC GHG Module
 - Updates this year
- Other programs

Part 2 – System Updates: BC GHG Module

BC GHG Module

With the new compliance report, the module now consists of 3 types of reports:

- 1. Facility Sale, Close or Purchase Report i.e. facility status change report (updates)
- 2. Facility GHG Emission Report (updates)
- 3. LNG Compliance Report (new for the 2016 reporting cycle)

Part 2 – System Updates: Facility Status

Submitting a status change report (i.e. Sale, Close or Purchase Report)

 Reporting Dashboard page, click the down-arrow to select Sale, Close or Purchase Report under Report Category, and click
 to select a facility or through Add New Report to submit a report.

Reporting Dashboard Welcome to the British Columbia Greenhouse Gas reporting module. Click "Help" then "Toggle In-Context Help" for more information. Report(s) - i Company List Year Report Category TESTORG CA-BC (20 facilities) 2016 Sale, Close or Purchase Report Status Facility Name Report Type Status Actions Test CA-BC Facility 0 Shut-in facility Ready to Submit Test CA-BC Facility 13 Sale Submitted (01/10/2017 18:40:47)



Part 2 – System Updates: Facility Status

New status type added

• "Shut-in facility" and "Temporary closure/closed" facilities

Reporting Details Test CA-BC Facility 0	Sale, Close or Purchase		
Activities		Report Progress: 1/1 Page Status: Complete	
	 Company Information 		
	Legal Name *	TESTORG_CA-BC (20 facilities)	
	Address Line 1	6456 1234 Lane Southwest, Victory City (British Columbia)	
	Notification type	Close	
		Sale	
	 Facility Details 	Purchase	
	Facility Name *	Close	
		Shut-in facility	
	Physical Address	Temporary closure/closed	
	Effective Date for sale, closure or purchase (YYYY-MM-DD) st		

Part 2 – System Updates: Facility Status

For "Shut-in" or "Close Report"

 enter N/A in the "Other Company Information" and "Other Company Contact Information" sections

For "Shut-in" and "Temporary Closure/Closed" report, this information is not required and will be removed next cycle

 Other Company Information 	
Company Name **	n/a
Address Line1 **	n/a
City **	n/a
Province/Territory **	British Columbia
Postal Code/Zip Code **	n/a
Country **	Canada
- Other Company Contact Person	
Given Name **	n/a
Email Address **	n/a
Phone Number **	n/a
Ext	

-

Submitting report

 Click the down-arrow under Report Category and select "Annual Report", then click or Add New Report to proceed

Reporting Dashboard

Welcome to the British Columbia (information.	Greenhouse Gas reporting module. Cli	ick "Help" then "Toggle In-Context Help" for r	nore 🗙
Report(s)			+ -
Company List	Year	Report Category	
BC MoE Corp	▼ 2016	Annual Report	- Q
Status Facility Name	Report Type	Status	Actions
Pro Handmgt	IF_a	(1/13)	ۍ 🐐
DG Pro 1	SFO	(0/15)	ۍ 🔹





Two New Activities

are added to the Facility Activities list:

- Carbonate Use in Table 1
- LNG Activities in Table 2



LNG Activities

- LNG production emission sources are categorized as Flaring, Fugitive and Venting
- For Flaring, "other Flaring Sources" information is required.

LNG Pro N/A	duction Other Flaring Sources	Emissions (t) **	Emissions (t CO2e)
	CO2 nonbio		
	CH4		
	N20		
Please sp	eficy the flaring sources included in the above "Other Flaring Sources": **		
suc	h as ABC Flaring	4	

Carbonate Use

 emissions from the use of carbonate materials not covered or consumed in other activities set out in Column 2 of Table 1.

Carbonate Use

		Report Progress: 0/8	Page Status: Incomplete
- Carbor	nate Emissions		
Carbonat	te used but not consumed in other activities set out in colu	umn 2 of table 1	
N/A	Gas	Emissions (t) *	 Emissions (t CO2e)
	CO2 nonbio		
_			
Back		Validate	Save/Continue
			Version: 3.8.0

Lime Manufacturing

Back

- Emission information divided into several entry sections depending on whether CEMS is used.
- Emission calculation information is provided

Lime Manufacturing					
	Rep	ort Progress: 0/9 Pag	e Status: Incomplete		
When a facility is equipped with CEMS, which is used in measurement, the emissions can be quantified as below from the calcination of raw materials and oxidization of organic carbon contained in the raw materials: $E_{C+0} = E_{CEMS} - E_{Auel}$, where E_{c+0} is the emissions for calcination of raw materials and oxidization of organic carbon contained in the raw materials; $E_{C+0} = E_{CEMS} - E_{Auel}$, where E_{c+0} is the emissions for calcination of raw materials and oxidization of organic carbon contained in the raw materials, E_{CEMS} is the total emissions measured by CEMS and E_{Auel} is the emissions from fuels combustion in the kiln, which can be calculated following the methods in WCI.20.					
- (a) Em carbon	issions from the calcination of carbonate materials an contained in the raw materials in Lime Manufacturing	d oxidization o	forganic		
Complete	e if CEMS was used (enter process emissions only, i.e. subtra	ct the combustio	n component)		
N/A	Gas	Emissions (t) **	Emissions (t CO2e)		
	CO2 nonbio				
Complete	e if CEMS was not used: Calcination				
N/A	Gas	Emissions (t) **	Emissions (t CO2e)		
	CO2 nonbio				
Complete if CEMS was not used: Oxidation of organic carbon					
N/A	Gas	Emissions (t) **	Emissions (t CO2e)		
	CO2 nonbio				

Table 2 - General Stationary Combustion

 Combustion: Field gas or Process vent gas added to differentiate the emissions from conventional combustion equipment in fields.

enera	al Stationary Combustion		
		Report Progress: 0/9	Page Status: Incomplete
(a) ge	neral stationary combustion, useful energy		
N/A	Gas	Emissions (t) **	Emissions (t CO2e
	CO2 nonbio		0
	CO2 blo-nC		0
	CO2 blo-C		0
	CH4		0
	N20		0
(b) ae	neral stationary combustion, no useful energy		
(0) 90	neral stationary compastion, no useful energy		
N/A	Gas	Emissions (t) **	Emissions (t CO2e
	CO2 nonbio		0
	CO2 bio-nC		0
	CO2 blo-C		0
	CH4		0
	N20		•
(c) Co	mbustion: Field gas or Process Vent Gas		-
(-/	-		
n/A	1255	emissions (t) 🗮	emissions (t CO2e)
	CO2 nonblo		0
	CH4		0
	N2O		٥

Other Flaring Sources

 Other flaring source information is added for oil and gas extraction and processing, natural gas transmission and distribution etc.

Other fla	ring sources		
N/A	Gas	Emissions (t) **	Emissions (t CO2e)
	CO2 nonbio		
	CH4		
	N2O		
Please prov	vide detailed information on these "other flaring sources": **		

Additions to the fugitive emission category from oil and

gas extraction and processing and LNG production activities:

- Produced water dissolved/associated gases and
- Enhanced oil recovery hydrocarbon liquids dissolved/associated gases

Onshore	petroleum and NG Production: EOR Hydrocarbon liquids dissolv	ed/associated ga	
N/A	Gas	Emissions (t) **	Emissions (t CO2e)
	CO2 nonbio		
	CH4		
Onshore	petroleum and NG Production: Produced Water Dissolved Carbo	on Dioxide and M	ethane
Onshore N/A	petroleum and NG Production: Produced Water Dissolved Carbo Gas	on Dioxide and M Emissions (t) **	ethane Emissions (t CO2e)
Onshore N/A	petroleum and NG Production: Produced Water Dissolved Carbo _{Gas}	on Dioxide and M Emissions (t) **	ethane Emissions (t CO2e)
Onshore N/A	Gas CO2 nonbio	Emissions (t) **	ethane Emissions (t CO2e)

Emissions from **Oil-water separators at Refinery** added to Petroleum Refining

- (g) Emissions from oil-water separators at refineries

N/A	Gas	Methodology **	Emissions (t) **	Emissions (t CO2e)
	CH4	Measured conversion factor	345.87657	
Replaceme selected a	ent/Alternative Methodology Descrip as a methodology above. Otherwise	otion (Mandatory if Replacement Methodology o , not saved.) **	r Alternative Parameter	Measurement

Emissions from wastewater processing using anaerobic digestion at refineries reported under Table 1 (Industrial) wastewater processing activity

Facility Activities

 Activity - Table 1
Mobile Combustion
Aluminum or Alumina Production
Ammonia Production
Cement Production
Coal Mining from Underground Mines
Coal Storage at Facilities that Combust Coal
Copper or Nickel Smelting or refining
Electricity Generation
Electronics Manufacturing
Ferroalloy Production
Glass, Glass Fibre and Mineral Wool Manufacturing
Hydrogen Production
Wastewater Processing
Lead Production
Lime Manufacturing
Magnesium Production
Nitric Acid Manufacturing

Mandatory Additional Reportable Information for Aluminum Production is required and must be reported when applicable.

 Mandatory Additional Reportable Information for WCI.72(j) - (q) 	
Attach a file here.	
Annual Aluminum Production (t) *	
Type of smelter technology used *	
▼	
Annual anode consumption for prebake cells (t)	
Annual CF4 emissions from anode consumption for Prebake cells (t)	
Appual C2E6 emissions from apade consumption for Probate cells (t)	
Annual anode paste consumption for Søderberg cells (t)	
Annual CF4 emissions from anode consumption for Søderberg cells (t)	
Annual C2F6 emissions from anode consumption for Søderberg cells	
File Name * Date *	
	D -
	U

General Stationary Combustion and Electricity Generation – "Measured Emission Factor Unit" - added after "Measured Emission factor"

May be required dependent on the fuels and methodology used

Municipal Solid Waste - non-biomass component (tonnes)

•	
Fuel *	Municipal Solid Waste - non-biomass component (to 💌
Annual Fuel Amount *	453.44
Annual Weighted Average High Heating Value (GJ/unit fuel) **	
Annual Weighted Average Carbon Content (weight fraction) **	
Annual Steam Generation (kg) **	324560
Measured Emission Factor **	1.98237
Measured Emission Factor Unit **	For example, Kg CO2 per tonne
Emissions for Fuel	
N/A Gas Methodology **	Emissions (t) ** Emissions (t CO2e)

To locate the "LNG Compliance Report", login to the system and then the BC GHG Module

Reporting Deta Reporting Dasht

 In Reporting Dashboard, click drop-down arrow under Report Category, select "LNG Compliance Report", click a or "Add New Report

Welcome to the information.	he British Columbia Greenhouse G	as reporting module. Click "Help" then "T	oggle In-Context Help" fo	r more 🗙
Report(s)				B
Company List BC MoE Corp	Pear 201	6 Repor	t Category Compliance Report	•
Status	Facility Name	Report Type	Status	Actions
No results found	d.			

ustom Fuel List

On the Facility Reporting Options page

- Confirm "LNG Compliance" for "Facility Type" and "Standard Report" for "Report Version"
- Click "Save/Continue" to continue

eporting Details	Facility Reporting Options
BCGHG Reporting Lead - All Facilities	- Company
Select the Facility Contacts	TESTORG_CA-BC (20 facilities)
Activities	5678 1203 ST Boulevard East, NS City (Manitoba)
 A: Electricity information during compliance period B: LNG Production Information 	- Facility Test CA-BC Facility 10
Emissions Information during compliance period	456 206 Avenue East, Lukvile (British Columbia)
Captured CO2	Facility Type *
Attachments	LNG Compliance
	Standard Report



Enter the LNG Permit Number on SWIM Validation page, specifically designed for LNG Compliance Report

Repo

rting Details	SWIM Validation	
ICGHG Reporting Lead - All Facilities Facility Reporting Options Select the Facility Contacts	Please verify the following information. Image: Always Save To SWIM On Commit	Report Progress: 6/6 Page Status: Complete
Activities A. Electricity Information	 Company Information 	
during compliance period	Legal Name *	TESTORG_CA-BC (20 facilities)
 Area Production Information during compliance period Emissions Information during compliance period 	English Trade Name	TESTORG_CA-BC (20 facilities)
Compliance period	Business Number *	345678921
Attachments	DUNS Number *	987654321
	Mailing Address	6456 1234 Lane Southwest, British Columbia, 5
	- Facility Details	
	Facility Name *	Test CA-BC Facility 10
	NPRI ID	
	BCGHG ID **	0 (BCGHG ID to be assigned by British Columbia MOE)
	Number of Permit issued to the LNG operation under section 25 of the Oil and Gas Activities Act *	LNG-001
	NAICS Code *	237310
	Physical Address	456 206 Avenue British Columbia

Follow the on-screen instructions to complete the LNG Compliance Report by entering required data

 The report Status shows Ready to Submit on the Reporting Dashboard after all data entered correctly.

Reporting Dashboard



Click Is to submit the compliance report

Reporting Dashboard

Welcome to the British Columbia Greenhouse Gas reporting module. Click "Help" then "Toggle In-Context Help" for more information.

Report(s)



÷ -

Status Facility Name	Report Type	Status	Actions
▶ Test CA-BC Facility 10	LNG Compliance Report	Ready to Submit	B -
✓ ► Test CA-BC Facility 1	LNG Compliance Report	Submitted (01/23/2017 14:09:30)	• •

A verification statement for a compliance report may be submitted before or after the report submission

• Use the same process as for emission report

Welcome to the British Columbia Gree information.	nhouse Gas reporting module. Click "	Help" then "Toggle In-Context Help" for more	×
Report(s)			B -
Company List	Year	Report Category	
TESTORG_CA-BC (20 facilities)	2016	▼ LNG Compliance Report ▼	٩
Status Facility Name	Report Type	Status	Actions
> Test CA-BC Facility 10	LNG Compliance Report	Ready to Submit	B -
▶ Test CA-BC Facility 1	LNG Compliance Report	Submitted (01/23/2017 14:09:30)	-

- Click the down-arrow under the **Actions** column
- Select **Report Verification** will prompt a new window to upload a verification statement file

Reporting Dashboard

eport(s)			Đ	
Company List TESTORG_CA-BC (20 facilities) ▼	Year 2016	Report Category LNG Compliance Report	•	
Status Facility Name	Report Type	Status	Actions	
▶ Test CA-BC Facility 10	LNG Compliance Report	Ready to Submit	Đ	
✓ ► Test CA-BC Facility 1	LNG Compliance Report	Submitted (01/23/2017 14:0	Edit	
✓ ► Test CA-BC Facility 0	LNG Compliance Report	Submitted (01/23/2017 14:0	Delete Submit	
✓ > ▶ Test CA-BC Facility 16	LNG Compliance Report	Submitted (01/19/2017 14:0	Generate Report	

- Select the right file for the **Verification Statement** and click **OK** button
- Click Save/Continue, the Verification Statement will be submitted, and a successful message will display

	se Gas			Cana	dä
Re	ort Verification				
Home Help swb# > 2015 > BC Org Tes Reporting Details Testing Fac 5	Success! This section has been successfully saved.			arger than	
			Ok	you are mitted, the	
	Uploading VR				
	File Name	Date			
	Q8 Testing Fac 5 LFO PDF Nov 06 2014.pdf	25/01/2016 7:22:20 PM			0 1

 Ignore the below statement - it does not apply to compliance reports – and will be updated next cycle

Report Verification

- A verification statement is required if E ≥ 25,000 t CO2e or E has been larger than 25,000 t CO2e in the past 3 reporting periods. A verification statement must be prepared as required by the Greenhouse Gas Emission Reporting Regulation. Click the paperclip icon to select the document to upload. Then click Save/Continue to save the document. If you are uploading a verification statement for a report that has already been submitted, the report does not need to be submitted again.

Comments		
File Name	Date	

Bugs Tracking Record File on Nov 23 2015.docx

30/01/2017 7:07:04 PM

0 💼

Back

Save/Continue

1. Facility status change

- Remember to submit a status change report through the Single Window Reporting System.
- Must notify the Director within 90 days of change.
- 2. No BC GHG ID? contact GHGRegulator@gov.bc.ca
- 3. Ensure Correct Contact Information is entered

Some reports have same information for all three types of contacts which may not be accurate



- **4. Ownership**: Enter ownership percentage for parent company(ies) in **SWIM**
- 5. Company and Facility Names: Ensure accuracy
- 6. NAICS codes and Permit Numbers: Do not enter the same NAICS code or Permit Number multiple times



- **7. Methodology**: Use WCI Methodology and/or industry consented standard as required
 - If no method exists contact <u>GHGRegulator@gov.bc.ca</u>
 - BC Best Practices Methodology for Quantifying Greenhouse
 Gas Emissions guidance is for public sector operations only
- Captured CO₂: Report tonnes of carbon dioxide captured for on-site use, storage or transferred offsite.
 - Captured CO₂ is any CO₂ from any source stream that is captured and then used or stored

- **9. File Name:** File title starts with company name followed by facility name, if applicable
 - **ABCCompany_XYZFacility** [*use it as file naming convention*].
 - Only upload the file to specific place as required
 - Make sure Verification Statement is submitted through uploading from the Reporting Dashboard
 - Ensure an attached PDF file is readable and searchable (i.e. no restrictions)

10. Useful and Non Useful Energy

- If the energy is being used, report it under the Useful Energy
- If the energy from combustion is not used, then report under **No Useful Energy**
- **11. Footprints**: Do not leave "footprints" in the system after submitting a report, it will affect reports.
 - For example, training after official submission the system notified report **altered**

Report Details	
Report Status	Ready to Submit
Facility Name	Plant
Facility Type	SFO
Report Type	Standard Report
Report Update Comments	No updates, training to use SWIM

12. ECCC Report: Don't use BC GHG Module to submit to ECCC report in whatever manner (e.g. update etc.)



- ECCC and BC have separate GHG reporting requirements but share the same data entry system in Single Window Reporting System.
- Login to Single Window Reporting System :
 - For BC: select BC GHG module
 - For ECCC: select ECCC GHG module

13. Linear Facilities Operations

- Discrepancies exist between LFO and all other reports: IF_a, IF_b and L_c
- Use same data from the same emission sources for both LFO and IF_a, or IF_b or L_c reports

14. On Site Transportation

 Emissions reported under Mobile Combustion for SFO facilities cannot be categorized as "Non Attributable Emissions" unless they do not meet the definition for mobile equipment emissions



15. Pre-Population Function

- If using 2013 report to prepopulate a new report, extra attention is required for GSC/EG activity
- A system error is associated with an unfunctional new element added after 2013 cycle (located at the GSC/EG Unit child page only for 2013 report)
- To avoid this error, first **Validate** the entire GSC/EG page, fix existing errors and then open the Unit child page to proceed. Otherwise, the Unit child page is not saved.
- No issue with using 2014, 2015 report for pre-population

16. Pre-Population Function (Oil and Gas Extraction and Processing or LNG Production activities)

- When using pre-population feature from a previous year's report, first "Validate" the entire page to open up the newly added fugitive emission sources for:
 - EOR Hydrocarbon liquids dissolved/associated gases
 - Produced Water Dissolved Carbon Dioxide and Methane

Related Links

1. Single Window Reporting System: https://ec.ss.ec.gc.ca

2. ECCC's Single Window Reporting System User's
Guide: http://ec.gc.ca/gu-sw/ or
https://ec.ss.ec.gc.ca/gu-sw/ or
"Guidance" at the left panel.

Related Links

WCI Essential Requirements for Mandatory Reporting – 2013 Addendum to Canadian Harmonization Version <u>http://www2.gov.bc.ca/assets/gov/environment/climate-</u> <u>change/ind/quantification/wci-2013.pdf</u>

WCI Final Essential Requirements for Mandatory Reporting – Amended for Canadian Harmonization (2011 Update) <u>http://www2.gov.bc.ca/assets/gov/environment/climate-</u> <u>change/ind/quantification/wci-2011.pdf</u>

WCI Final Essential Requirements for Mandatory Reporting – Amended for Canadian Harmonization (2010)

http://www2.gov.bc.ca/assets/gov/environment/climate-

change/ind/quantification/wci-2010.pdf



QUESTIONS? / FEEDBACK

Contact: ghgregulator@gov.bc.ca

THANK YOU!