

# Reporting 2014 Emissions - Lessons Learnt and Program Updates

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# Global Warming Potentials (GWPs) Update

- Updated to 4<sup>th</sup> assessment report GWPs, for 2014 reporting
- Automatic within Single Window System
- The main gases' GWPs are:

Gas	New GWP	Old GWP
CO <sub>2</sub>	1	1
CH <sub>4</sub>	25	21
N <sub>2</sub> O	298	310
SF <sub>6</sub>	22800	23900

For more details, refer to:

<http://www2.gov.bc.ca/gov/DownloadAsset?assetId=F603B1F708534E1B94804078F21C284B&fileName=gwp.pdf>



## Verification Report Deadline Change

- Deadline has been extended to May 31 from March 31
- To provide sufficient time for verifiers to complete the verification process
  - Change affects 2014 reports and onwards
  - Reporting deadline remains March 31
  - Due to this change, starting with verification of 2015 emissions reports fall sites visits no longer considered appropriate
- *This change does not affect submission of emissions reports by March 31*
- **For details, refer to:**  
<http://www2.gov.bc.ca/gov/topic.page?id=F38E5F5796DC4E0790C619E7E5C22884>



# Latest Updates to WCI Methodology

WCI Methodology Latest Updates on Dec 21, 2013

A guide and full document can be found here:

<http://www2.gov.bc.ca/gov/topic.page?id=7E56C1CB0C524E3BB26EC22323B338A6>

The updates include:

- Adoption of new pneumatic device & Pumps emissions factors
- Clarifying preferred AGR quantification methods and calibration requirements
- Clarifying requirements for quantifying Third-Party Line Hits emissions
- Clarifying requirements for quantifying compressor venting emissions
- Other minor changes

# Current WCI Quantification Methods Documents

- WCI Essential Requirements for Mandatory Reporting – 2013 Addendum to Canadian Harmonization Version

<http://www2.gov.bc.ca/gov/DownloadAsset?assetId=950836C553B84B3F8E53D8C08F0F7704&filename=wci-essential-requirements-2013-canadian-addendum.pdf>

- Final Essential Requirements for Mandatory Reporting – Amended for Canadian Harmonization (2011 Update)

[http://www2.gov.bc.ca/gov/DownloadAsset?assetId=BF152521F4FB46808DED3654B6CA8498&filename=final-essential-requirements-mandatory-reporting\\_second-update\\_21dec2011.pdf](http://www2.gov.bc.ca/gov/DownloadAsset?assetId=BF152521F4FB46808DED3654B6CA8498&filename=final-essential-requirements-mandatory-reporting_second-update_21dec2011.pdf)

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

[http://www2.gov.bc.ca/gov/DownloadAsset?assetId=0BD5DB3440834A6EB0AFD1EC1323D5F2&filename=final-essential-requirements-mandatory-reporting\\_update\\_17dec2010.pdf](http://www2.gov.bc.ca/gov/DownloadAsset?assetId=0BD5DB3440834A6EB0AFD1EC1323D5F2&filename=final-essential-requirements-mandatory-reporting_update_17dec2010.pdf)

# High Level and Verification Lessons Learnt

## High Level

- Ensure that individual facilities within linear facilities operations are being reported per the 1,000, 10,000 and 25,000 t CO<sub>2</sub>e thresholds in the regulation (not grouped into aggregates from a production field)
- Where there has been a change in management or control of facilities, ensure that proper documentation resides with the company who owns the facility at the end of the calendar year

## Verification Specific

- For all reporting operations with verification obligations, ensure that site visits are conducted annually. For linear facilities ensure that site visit selection follows section 23(3) of the regulation
- Methods employed for estimating **missing data** need to be verified
- Ensure that directly measured fuel volumes, fuel purchased records or invoices support calculations for fuel combustion emissions (not other engineering estimates)

# Regulatory Updates Lessons Learnt

- Public statement has been made that both the Reporting Regulation and Emissions Offset Regulation would be shifted to the new *Greenhouse Gas Industrial Reporting and Control Act*
  - Consultations on the new versions of the regulations to occur in 2015. **This is not a consultation session – please hold any questions on this topic until consultation occurs.**
  - No changes to 2014 reporting will occur due to the new regulation
  - The goal is to keep the new regulation consistent with the existing regulation with some minor improvements and addition of LNG-related requirements
  - Commitment to verification and thresholds remains
- **What the current regulation says must continue to be used until an updated regulation comes into force**
  - For example: if a company has heard that a particular clause in, say, the way electricity import emissions are calculated may change when the regulation is updated, the company must ignore the prospective changes and simply prepare their report / verify using what is current legal record

# Quantification Lessons Learnt

- Use of the alternative parameter measurement clause is not currently valid - as there were no applications made last winter
- Compressor vent measurements must occur per the requirements of the quantification methods (overall: emission factors are not a substitute for measurement unless specifically allowed by a method)
- Waste streams that are burned are considered a fuel and reported under general stationary combustion
- Ensure that sampling, analysis and measurement requirements of the quantification methods are properly followed
  - Ensure that meter calibrations have occurred per the requirements of the quantification methods, and calibration tags exist
  - Especially ensure that fuel sampling frequency requirements are followed.
  - Check for proper temperature and pressure corrections for flow measurement devices (in one province quite a few companies had to recalculate all their previous emissions estimates due to this error).



# Administrative and Reported Data

- Ensure that geographic coordinates reported for a facility are correct
- Ensure that facility address information is in BC (not AB)  
Ensure that emission sources are reported in the right place (e.g., general stationary combustion, pulp and paper, refinery fuel gas, hydrogen).
- Ensure that secondary information required to be reported in summary documents (not directly in the single window system) are provided as required
- Report production data where required.
- Report the process parameters, high heat values or carbon contents as specified in the template where required
- Make sure that emission factors (if not default) and replacement methods (if used) are documented properly in the attachments:



# Inconsistent Facility Names

- A unique Facility ID is assigned by the system automatically, corresponding to a unique BC GHG ID, assigned by BC MoE for each facility.
- Unless there is reason for a change, please try to keep the facility name consistent

Facility Name (entered)	Facility ID (assigned)	Reporting Year
Oak 02-07	2281	2012
Oak 2-7	14943	2013

Facility Name (entered)	Facility ID (assigned)	Reporting Year
Bubbles C-079-A/094-G-08	13092	2013
BUBBLES c-79-A/94-G-8	2147	2013

Capital and lower case letter make differences

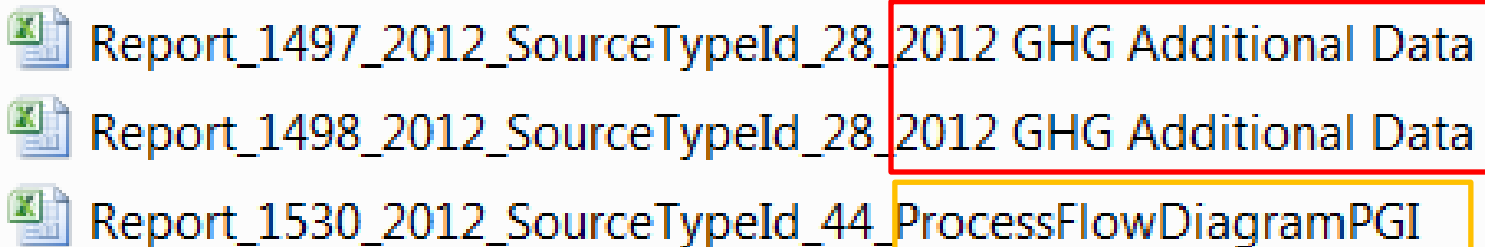
ALTARES B-82-G/94-B-8	13076	2013
ALTARES b-82-G/94-B-8	2159	2013

# File Names for Attachments

Please ensure that file names can be easily identified by:

- placing the Company and Facility name in the title
- ensuring that the company/facility name is in the contents of the file

(we can determine which facility / company from the report number, however this does not allow quick access)



Report\_1497\_2012\_SourceTypeId\_28\_2012 GHG Additional Data  
Report\_1498\_2012\_SourceTypeId\_28\_2012 GHG Additional Data  
Report\_1530\_2012\_SourceTypeId\_44\_ProcessFlowDiagramPGI

One cannot tell which companies these files are for

# Uploading Files

- Use the 2014 Verification Statement and Conflict of Interest Report templates
- Please make sure that password-protection is turned off
- Please do not provide images of pdf files – instead provide \*.pdf or the source word files (this allows us to automatically process incoming files)

# System Intricacies

- In a few instances , there is no clear location to enter the emission data for a specific emission source
- - ensure that all emissions data is entered in an appropriate place, and provide explanation in the “Comments” area

## Example

New



### Emissions Source:

- Onshore Petroleum and NG Production: **Flaring** for Well Liquids Unloading
- Current system doesn't have such a flaring source
- Not allowed to put emissions data under “Onshore Petroleum and NG Production: **Well Venting** for Liquids Unloading”, where N<sub>2</sub>O will be omitted

### Solutions:

- Report emissions in any empty source under the **Flaring** source
  - Combine with another **Flaring** source, if no empty source available
- and
- Provide a detailed explanation as to what was done in the “Comments” area
  - and attach a file with the explanation

# Acid Gas Removal Emissions

## Issue:

- WCI.362(g)(7) requires reporting of Total Throughput of Acid Gas Removal Units but, in some cases where this is provided in attached Excel file, there is
  - No AGR emissions reported in the GHG report according to WCI363(c)
- Please ensure that reports are internally consistent
- Acid Gas component (i.e. CO<sub>2</sub>, H<sub>2</sub>S) concentrations must be properly documented in the attached file

# Missing Combustion Fuel Details

- In some cases fuel details have been missing.
  - SFO, LFO and IF\_a share the same structure.
- Click the icon at right side (A or B) to expand the child window, where details of units and fuels must be entered
  - fuel type, fuel amount, fuel HHV/EF and CC are required

## General Stationary Combustion

Report Progress: 2/9 Page Status: Incomplete

- (a) general stationary combustion, useful energy

Fuel Groups

*Empty*

**A**



- (b) general stationary combustion, no useful energy

Fuel Groups


*Empty*

**B**





# Fuel Detail Data Entry

- Unit and fuel details are entered here 
- For SFO, LFO and IF\_a reports, methods and HHV, CC and/or steam production are also required.

- (a) general stationary combustion, useful energy

## Fuel Groups

- U1

GSC Unit Name \*

U1

Description

Energy supply

## Fuels

- Natural Gas (Sm<sup>3</sup>)

Fuel \*

Natural Gas (Sm<sup>3</sup>)

Fuel Classification

non-biomass

Fuel Description

Units

Sm<sup>3</sup>

Annual Fuel Amount \*

200.00

Annual Weighted Average High Heating Value (GJ/unit fuel) \*\*

0.03906

Annual Weighted Average Carbon Content (weight fraction) \*\*

0.7654

Annual Steam Generation (kg) \*\*

430

## Emissions for Fuel

N/A	Gas	Methodology **	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>	CO2 nonbio	Methodology 2 (measured HHV/Steam)	34,4362	34.4362
<input type="checkbox"/>	CH4	Measured HHV/EFc	0.3213	8.0325
<input type="checkbox"/>	N2O	Measured Steam	0.007857	2.3414

Replacement/Alternative Methodology Description (Mandatory if Replacement Methodology or Alternative Parameter Measurement selected as a methodology above. Otherwise, not saved.) \*\*



## Entering Data for LFO Sources where there is no data entry location

- For LFOs, if there is a source for which there is no data entry location (e.g. boilers), but there are for sources (e.g. line heaters), then enter the emissions data in an empty source when available, or combine with another source if there is no empty source
- Provide an explanation in the Comments section.

- Additional information required when other activities selected are Activities in Table 2 rows 2, 4, 5, or 6 (not aggregated in totals)

### Line Heaters: Field gas or Process Vent Gas

N/A	Gas	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>			
<input type="checkbox"/>	CO2 nonbio	<input type="text"/>	
<input type="checkbox"/>	CH4	<input type="text"/>	
<input type="checkbox"/>	N2O	<input type="text"/>	

### Line Heaters: Other Fuels

N/A	Gas	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>			
<input type="checkbox"/>	CO2 nonbio	<input type="text"/>	
<input type="checkbox"/>	CH4	<input type="text"/>	
<input type="checkbox"/>	N2O	<input type="text"/>	

# For L\_c Reports

- Data entry requirements are simpler, with fuel details such as fuel type, amount, HHV/EF, CC to be documented in the attached file if applicable.

New Item

Fuel *	Natural Gas (Sm <sup>3</sup> )
Annual Fuel Amount *	345.0586

## Emissions for Fuel

N/A	Gas	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>			
<input type="checkbox"/>	CO2	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	CH4	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	N2O	<input type="text"/>	<input type="text"/>

Save Cancel

# For IF\_b Reports

- The system does not require details on units and fuels, HHV, CC etc.. Instead this information must be submitted in an attachment

## General Stationary Combustion

Report Progress: 1/6 Page Status: Incomplete

### - (a) general stationary combustion, useful energy

N/A	Gas	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>			
<input type="checkbox"/>	CO2 nonbio	<input type="text"/>	
<input type="checkbox"/>	CO2 bio-nC	<input type="text"/>	
<input type="checkbox"/>	CO2 bio-C	<input type="text"/>	
<input type="checkbox"/>	CH4	<input type="text"/>	
<input type="checkbox"/>	N2O	<input type="text"/>	

### - (b) general stationary combustion, no useful energy

N/A	Gas	Emissions (t) **	Emissions (t CO2e)
<input type="checkbox"/>			
<input type="checkbox"/>	CO2 nonbio	<input type="text"/>	
<input type="checkbox"/>	CO2 bio-nC	<input type="text"/>	
<input type="checkbox"/>	CO2 bio-C	<input type="text"/>	
<input type="checkbox"/>	CH4	<input type="text"/>	
<input type="checkbox"/>	N2O	<input type="text"/>	