Template for Verification of Baseline Emissions Intensity Applications under the Specified Gas Emitters Regulation

1.1 INTRODUCTION

This template is intended for third-party verifiers retained to conduct a verification of a facility's Baseline Emission Intensity Application to be submitted to Alberta Environment. The objective of the verification process is to ensure that Alberta Environment receives reports under the *Specified Gas Emitters Regulation (SGER)*, which are reliable and of sufficient quality to support the determination of the baseline emissions intensity, and support subsequent compliance assessments. Third Party Verifiers may choose to use the template provided or adapt the content of this template. In cases where the verifier uses a corporate template, the verifier must ensure that all fields identified in this template are included and appropriate and sufficient information is provided.

The third party verification should flag discrepancies in reported data, identify areas where the interpretation in the reported data differs from the guidance provided by Alberta Environment, and flag material and immaterial discrepancies encountered. Where the facility has deviated from guidance provided by Alberta Environment, the verifier must ensure the facility has received written authorization from Alberta Environment approving the change. The verifier will be prompted to reiterate information about scope, objectives, verification team etc, throughout the template. If sections of this template are being omitted, justification for the omission must be provided.

This template document should not be used in isolation. It should be used in conjunction with the *Technical Guidance Document for Baseline Emissions Intensity Applications*, the *Baseline Emissions Intensity Application Form*, and the *Specified Gas Emitters Regulation (SGER)* accessible from the following webpage http://www.environment.alberta.ca/1167.html . Appropriate verification standards for the Specified Gas Emitters Regulation are:

- ISO 14064:3 Specification with guidance for the validation and verification of greenhouse gas assertion,
- Standards for Assurance Engagements, Canadian Institute of Chartered Accountants (CICA) Handbook – Assurance Section 5025, and
- International Standard on Assurance Engagements (ISAE) 3000 – Assurance Engagements Other Than Audits or Reviews of Historical Financial Information.

Third Party Verifiers are required to demonstrate how they meet the requirements stated above, and the Lead Verifier must state their qualifications, including training for the standard being used.

This document is part of the regulated facility's baseline application. Alberta Environment will review this document as part of the overall submission. If this documentation is lacking, Alberta Environment may follow-up with the verification community as needed.

Note: Verification site notes and field notes do not need to be included but must be made available upon request. Confidential and proprietary information need to support the verification must be made to the Third Party Verifier Confidential information is subject to section 59 of the *Climate Change and Emissions Management Act.* Further clarification is available in the Technical Guidance for Completing Baseline Emissions Intensity Applications.

1.2 SUPPORTING DOCUMENTS

A complete Third Party Verification report is required as part of the regulated facility's baseline application, and should be submitted along with the following forms available in the facility's baseline application form.

1. The signed Conflict-of-Interest Checklist,
2. The signed Statement of Qualification form,
3. The signed Statement of Verification form, and

The baseline application, third party verifier's report and prescribed forms stated above must be submitted to Alberta Environment for approval under the *SGER*.

Verification of
[insert name of facility]'s
Greenhouse Gas Baseline Emissions Intensity Application
under the *Specified Gas Emitters Regulation*

Intended User: Alberta Environment
Date submitted: Insert date of submission

Submitted by:
[Insert the name of your company]
Insert Contact Name
Insert Contact Position
Insert Address 1
Insert Address 2
Insert City, Insert Province, Insert Postal Code
Insert Telephone
Insert Fax
Insert Email
Insert Website

Attention:
Director, Climate Change Secretariat, Alberta Environment
12th Floor, 10025 – 106 Street, Edmonton, Alberta T5J 1G4
E-mail: aenv.ghg@gov.ab.ca

TABLE OF CONTENTS

1 VERIFICATION REPORT

Facility Name:	EPEA Approval No.
	EUB License No.
	Facility ID Number
	NPRI ID
	NAICS Code
Facility Location (Not mailing address)	
Address City/District/Municipality/County Province	Postal Code
Facility Legal Land Description	
Latitude:	Longitude:
Facility Mailing Address	
Certifying Official Address City/District/Municipality/County Province	Postal Code
Facility Information	
First Year Commercial Operation:	Number of Years of Continuous Operation
Baseline Period:	Revised Baseline - Yes - No
Baseline Emissions Intensity:	
Third Party Verifier	
Lead Verifier Position Address City Province	Postal Code
Qualifications of Lead Verifier	

Description and Conclusion of Verification	
Verification Methodology:	
Verification Objective:	
Verification Summary:	
Verification Team Members and Roles:	
Site visit: Yes No date: If No, explain why the site visit was omitted:	Report Date:

2 EXECUTIVE SUMMARY

[Provide an overview and summary of the verification report. This should include an outline of what the facility does, how the boundary has been defined, relevant background information for the facility operations, and context for the verification. It should include the baseline emission intensity and the net emissions intensity target and should identify the methodology used to support this verification. The verifier should also include a brief discussion about the assurance level being provided, the verification boundaries, scope and objective, the verification process, the verification team members, and the opinion about the baseline report. This section should be no more than a page long.]

3 VERIFICATION OBJECTIVE

[Discuss the objective of the verification relative to overall assurance on the facility's submission.]

4 VERIFICATION SCOPE

Baseline Period	
Time period covered by verification	
Specified gases covered by the verification	
Products	
Source Categories	
Verification Methodology	
Materiality Threshold	
Negligible Emissions[1]	
Level of Assurance	

[In addition to the overview information requested above, the Third Party Verifier should provide a discussion on the scope of the verification including, both physical and temporal aspects of the facility operations.]

5 VERIFICATION CRITERIA

[List the applicable verification criteria and any relevant, supporting documentation that was used. If the criteria are from the *SGER* or another standard then refer to the source and list the criteria.]

[1] Negligible emissions are emissions sources that on an aggregate total equal less than 100 tonnes CO_2e per year.

6 VERIFICATION SCHEDULE

[Provide a list of verification activities and dates. For example, when was the sampling plan established? The site visit conducted?]

7 VERIFICATION TEAM MEMBERS

[Provide a list of verification team members and roles]

8 VERIFICATION ACTIVITIES

[This section should discuss how the verifiers implemented the verification plan (included in the appendices) including any changes that were made to the original verification plan, and what tests were undertaken to assess data, data management systems and other aspects of the facility's GHG assertion. This should include:

- methodologies used to assess/verify emissions data
- verification techniques i.e., computation, enquiry etc.
- details of site visit
- other relevant information

Review activities
[Describe the review activities used to assess the GHG assertion and associated baseline emission intensity application. Explain what was done to reach a sufficient level of comfort with the facility's submission]

Verification techniques
[Provide a discussion of techniques such as computations, enquiries, inspections etc. Include the details, how they were done and why they were done.]

Verification Calculations
[Provide an overview of calculations used to support the verification. This may include a description of analytical tools used, proxy data, comparisons, and similar analysis used to assess the validity of the GHG assertion]

Review of Documents
[Provide a detailed list of documents reviewed during the verification.]

Site visits and interviews
[Provide details for the site visit, including facility personnel interviewed

9 EMISSION SUMMARY

[Provide summary tables of the confirmatory calculations that the verification team conducted to compare with the client's calculations. Indicated what the calculations were based on and any other applicable information regarding calculations. Also, provide a summary of the materiality threshold. Total GHG emissions, carbon dioxide, methane and nitrous oxide should be included for the three baseline years.]

For existing facilities[2]

		2003				2004				2005			
GHG Emissions Source Category	**Units**	**CO_2**	**CH_4**	**N_2O**	**Total**	**CO_2**	**CH_4**	**N_2O**	**Total**	**CO_2**	**CH_4**	**N_2O**	**Total**
Stationary Fuel Combustion	t CO_2e												
Industrial Process	t CO_2e												
Venting	t CO_2e												
Flaring	t CO_2e												
Other/Fugitive	t CO_2e												
On-site Transportation	t CO_2e												
Waste and Wastewater	t CO_2e												
Vented Raw Gas	t CO_2e												
Total Direct Emissions (TDE)	**t CO_2e**												
Industrial Process Emissions	t CO_2e												
Total Annual Emissions (TAE)	**t CO_2e**												
If claiming cogeneration;													
Total GHG from Cogen (GT)	t CO_2e												
Deemed GHG emissions from Heat production (DH)	t CO_2e												
Electrical Produciotn	MWh												
Total Product													
Emission Intensity													
Baseline Emissions Intensity (BEI)													

[2] The sample table provided is for existing facilities with a 2003 to 2005 baseline. If facilities are applying as new facilities, or with alternate baseline periods, they should adjust the table accordingly.

For phased expansion facilities[3]

		Year 3				Year 4				Year 5			
GHG Emissions Source Category	**Units**	**CO_2**	**CH_4**	**N_2O**	**Total**	**CO_2**	**CH_4**	**N_2O**	**Total**	**CO_2**	**CH_4**	**N_2O**	**Total**
Stationary Fuel Combustion	t CO_2e												
Industrial Process	t CO_2e												
Venting	t CO_2e												
Flaring	t CO_2e												
Other/Fugitive	t CO_2e												
On-site Transportation	t CO_2e												
Waste and Wastewater	t CO_2e												
Vented Raw Gas	t CO_2e												
Total Direct Emissions (TDE)	**t CO_2e**												
Industrial Process Emissions	t CO_2e												
Total Annual Emissions (TAE)	**t CO_2e**												
If claiming cogeneration;													
Total GHG from Cogen (GT)	t CO_2e												
Deemed GHG emissions from Heat production (DH)	t CO_2e												
Electrical Produciotn	MWh												
Total Product													
Emission Intensity													
Baseline Emissions Intensity (BEI)													

[3] Facilities undergoing phased expansion should consult the Technical Guidance for Completing Specified Gas Compliance Reports. These facilities will establish a baseline over time starting in their third year of commercial operation, expanding to a three year baseline of years 3-5 applicable for the 6th year of commercial operations. The table above would apply to a phased expansion operation in its 6th year of commercial operation.

For new facilities:

		Year 3			
GHG Emissions Source Category	**Units**	**CO_2**	**CH_4**	**N_2O**	**Total**
Stationary Fuel Combustion	t CO_2e				
Industrial Process	t CO_2e				
Venting	t CO_2e				
Flaring	t CO_2e				
Other/Fugitive	t CO_2e				
On-site Transportation	t CO_2e				
Waste and Wastewater	t CO_2e				
Vented Raw Gas	t CO_2e				
Total Direct Emissions (TDE)	**t CO_2e**				
Industrial Process Emissions	t CO_2e				
Total Annual Emissions (TAE)	**t CO_2e**				
If claiming cogeneration;					
Total GHG from Cogen (GT)	t CO_2e				
Deemed GHG emissions from Heat production (DH)	t CO_2e				
Electrical Produciotn	MWh				
Total Product					
Emission Intensity					
Baseline Emissions Intensity (BEI)					

10 ASSESSMENT OF DATA MANAGEMENT SYSTEMS AND CONTROLS

[Describe the client's data collection, roll-up and reporting process through observations from document review, site visit, and interview activities.]

11 VERIFICATION FINDINGS

[Discuss verification findings and results:

- unresolved material[4] and immaterial discrepancies
- data management and system controls
- emissions sources
- facility boundary compared with the facility definition under the *Regulation*
- statement of findings]

State the final verification opinion and include specific findings that resulted from the verification activities and any material or immaterial concerns that arose and whether or not they were dealt with. It is important that details on the unresolved immaterial discrepancies are provided. Give any recommendations as related to the observations of weaker areas.]

12 LIMITATION OF LIABILITIES

[Verifier limitation of liabilities.]

13 CONCLUSIONS

Material Discrepancies

[Note: a verifier cannot issue an audit opinion if there are unresolved material discrepancies.]

Immaterial Discrepancies

[Identify unresolved immaterial discrepancies. Verifiers should quantify discrepancies relative to the materiality threshold]

14 STATEMENT OF VERIFICATION[5]

[The statement of verification provide here should match the wording and conclusion provided in the Statement of Verification form (tab SoV in the Baseline Emission Intensity Application).]

[4] Note: a verifier cannot sign off on a verification report where there are unresolved material discrepancies.

[5] **The verification statement is only one part of the entire verification report and is in no way equivalent to a report. Alberta Environment will not accept verification statements that do not have an accompanying verification report.**

15 VERIFICATION TEAM AND SIGNATURES

[Clearly identify all team members, their qualifications and their respective duties. The signature must be of an individual and not the corporation.]

Electronic signatures are permissible under the *Specified Gas Emitters Regulation (SGER)* program and must be sufficient to identify the signing authority.

SGER also requires the Third Party Verifier to be an individual. If a company wishes to sign on behalf of the Corporation, sign-off may be done as:

Company Name _____

Per [Corporate Binding Official]

APPENDICES

16 PROCESS FLOW DIAGRAM FOR THE FACILITY

17 FINAL VERIFICATION PLAN

[Provide a detailed discussion of the verification plan including, but not limited to:

- Methodologies,
- key emission sources,
- risk assessment,
- final sampling plan, and
- other relevant information]

17.1 INTRODUCTION

[Include an outline of the verification plan, what it establishes and what standards were applied. The verification plan should outline the period of verification and timing of activities and the verification team members and their roles.]

17.2 VERIFICATION PLAN

Level of Assurance:

Verification Objectives:

Verification Criteria:

Verification Standards:

Verification scope:

Materiality Threshold:

Scheduling Plan:
Data and information Management Review:

Verification Deliverables:

Verification Team:

Verification Procedures:

17.3 ASSESSMENT OF RISK

[The risk evaluation based on the data review was used to assess the sources of magnitude of potential errors, omissions, or misrepresentations for further verification activities. Three categories of risk were assessed:

- **Inherent Risk** – the likelihood of a material error, omission, or misrepresentation based on the complexity of the project
- **Detection risk of the organization** – the likelihood that the organization's control procedures will fail to prevent, detect, or correct an error or omission
- **Detection of risk of the verifier** – the likelihood that an verifier will not find a materiality discrepancy]

17.4 SAMPLING PLAN

Summarize the development, activities and justification of your sampling plan. The following questions will help guide your summary.

- How was the sampling set?
- What was the sample size? (data points, intervals, % sample…)
- What methods were used to test the samples? (Selective and statistical sampling of data, sensitivity analysis, and operations based on professional judgment together make a good group of methods.)
- Describe any assumptions made when sampling?
- Which specific standards and/or methodologies were used to develop the sampling plan?
- Justify the systematic and objective nature of the sampling plan.

17.5 DATA FLOW/PROCESS FLOW CHARTS

[Should be made available by the facility and should be reviewed, QA/QC check should be done, and maintenance schedule and records for equipment should be examined.

If a desktop audit is completed indicate what categories of data were evaluated such as measurements and calculation data or support data like meta data and ancillary data.]

18 OPTIONAL: ABBREVIATIONS, CONVERSION FACTORS AND DEFINITIONS, EMISSIONS FACTORS AND REFERENCE MATERIALS USED

[Make sure to provide references for the conversion factors and other cited information with proper footnoting.]