

COMPETENCY PROFILE:

GREENHOUSE GAS (GHG) AUDITOR

ROLE OVERVIEW

Greenhouse Gas (GHG) auditors work with an organization to audit and verify that organization's projected and estimated actual emissions. They work on various sustainability services, including emission reductions, climate-related financial disclosures, and emissions offsetting.

GHG auditors play an important regulatory role and must keep up to date with any changes so that the emission-related programs, including monitoring and reporting, reflect the current social and regulatory environment. They may establish and maintain client relations and update clients and stakeholders with business operations as required. They are often third-party specialists who assess and verify an organization's reported emissions.

As of 2024, previously optional environmental, social, and governance reporting, including emission reporting, will become mandatory, making GHG auditors even more critical to the Canadian economy.

ALSO KNOWN AS:

- Emissions Auditor
- GHG Accountant
- Carbon Specialist
- Emissions Analyst
- Emissions Specialist
- Emissions Advisor

NATIONAL OCCUPATIONAL CLASSIFICATION:

- 11201 – Professional occupations in business management consulting

EDUCATION AND EXPERIENCE

- A bachelor's degree in science or engineering is essential. Environmental science, environmental engineering, chemical engineering, or biology provide a solid foundation in scientific principles, data analysis, and environmental processes critical for GHG auditing.
- The role or employer may necessitate specific degrees. For instance, positions focusing on industrial emissions require a chemical or environmental engineering background. In contrast, roles centred on product carbon footprints could benefit from degrees in environmental science.
- A few years of work experience in environmental compliance, sustainability consulting, emissions quantification, or environmental impact assessment is typically required. This experience is crucial for understanding GHG emission sources, measurement techniques, and the regulatory framework.
- Certified GHG Auditor, ISO 14064 (international standard for quantifying and reporting greenhouse gas emissions), or Certified Carbon Reduction Manager (CRM) can significantly enhance qualifications, offering expertise in GHG protocols, inventory management, and verification. The necessity of these certifications varies by employer and job specifics.
- It is vital to keep current with evolving regulations, standards, and methodologies in GHG auditing, including participating in workshops, courses, and seminars on climate science, environmental legislation, and GHG accounting and verification.
- GHG auditors need solid analytical abilities, meticulous attention to detail, and proficiency in interpreting complex regulations. Practical communication skills are also crucial for reporting findings and advising stakeholders clearly and persuasively.

TECHNICAL



Data and Statistical Analysis

Uses established statistical methods to analyze emissions data, identifying trends and patterns that inform strategic planning and decision-making.

- Calculates, validates, and verifies a facility's emissions based on gathered data to measure the total projected emissions.
- Estimates the cost and benefits of GHG mitigation activities to facilitate better decision-making.
- Contributes to developing carbon neutrality strategies based on existing data trends to work towards net zero emissions for the organization.
- Evaluates the efficacy of different carbon reduction and mitigation strategies to identify and prioritize the most accurate systems.

Data and Information Management

Coordinates and controls documentation within defined limits of authority as per company, industry, and regulatory requirements to ensure timely, accurate, clear, thorough, and accessible reporting of information to authorized personnel as/when required.

- Checks and verifies documentation of an organization's operational activities and results to ensure accuracy in reporting.
- Compiles, sorts, and analyzes production performance records and data to assess organizational performance.
- Review documentation to ensure regulatory compliance and identify any areas of improvement.
- Ensures confidentiality requirements are met to protect organizational interests and privacy.
- Ensures that data integrity is maintained (for audits, decision-making, etc.) to enable accurate and effective audits.

Quality Assurance

Follows appropriate processes, as directed by governmental best practices, to ensure quality is maintained throughout the emissions auditing process and that reports are as accurate as possible.

- Establishes and maintains robust quality assurance processes to ensure the integrity and reliability of GHG audit reports.
- Implements corrective actions as needed, fostering a culture of continuous improvement and commitment to delivering high-quality audit outcomes.
- Uploads converts and manages data from various sites and field data collection systems to estimate an organization's total cross-site emissions.
- Converts organizes and analyzes existing emissions lifecycle data to harmonize gaps and limit variability in an organization's estimated emissions.
- Assesses an organization's emissions inventory to gain a fuller picture of what measures may be required to counteract an organization's emissions and reach net-zero emissions.

Project Management

Develops a comprehensive emissions monitoring and reduction plan, monitoring the organization to identify risks, pass on information, and ensure all departments are reporting.

- Offers recommendations on further actions to reduce emissions, enhancing the company's commitment to corporate responsibility.
- Prepares and submits required documentation to ensure that all requirements are met.
- Informs clients and partners about emissions requirements to advise on any regulatory requirements that may be lacking.
- Works with emissions specialists to verify compliance and accurate recording to the best of their ability.

Technical Writing

Identifies necessary/relevant information and composes it into a report to distill information and convey the findings concisely.

- Identifies relevant information to narrow the report's scope and include the necessary information.
- Writes and delivers reports on emissions reduction performance to keep all levels of management on the same page.
- Synthesizes findings into clear and concise reports to increase corporate transparency.
- Presents the information in the report in a way easily digestible by the target audience.



Communication

Positively directs outcomes by delivering communication that results in a better understanding of goals and objectives, captures interest, and gains support for immediate action.

- Translates complex knowledge into clear terms to ensure the information will be accessible to diverse audiences.
 - Engages with engineers, sustainability professionals, climate scientists, and others to respond effectively to the available risks and opportunities.
 - Meets with clients and external partners to understand their needs and address concerns.
 - Communicates requirements to staff to ensure all personnel are aware of them.
 - Actively participates in or leads team discussions to generate ideas and solutions, solve problems, and improve overall organizational emission-related performance.
 - Presents audit findings clearly and effectively to internal and external stakeholders to establish common ground.
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Collaboration

Engages in professional collaborative efforts with other team members, including sharing information and expertise, utilizing input from others, and recognizing others' contributions to work towards a common goal.

- Collaborates with operations in all departments (and potentially across sites) to ensure the required activities are completed and detailed.
 - Works with regulators and organizational team members to maintain compliance and ensure that responsible parties are aware of any changes.
 - Builds and sustains strong relationships with stakeholders, individuals, agencies, and the public to foster collaborative efforts in reducing emissions and assist in understanding and disseminating information.
 - Shares relevant and useful knowledge or expertise to aid team members in more efficiently or effectively accomplishing their emission monitoring and reducing objectives.
 - Works collaboratively with cross-functional teams, including environmental specialists, engineers, and regulatory affairs professionals, to integrate GHG audit results into broader sustainability initiatives.
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Ethical Conduct

Conducts their work with integrity and respect in personal and organizational practices to maintain and grow their company's reputation for professionalism and ethical standards. Competency in this role is demonstrated when the individual:

- Manages data security to ensure confidentiality of the organization's data.
- Ensures the use of facilities and resources appropriate for protecting the accurate emissions monitoring.
- Communicates and advises senior management on ethical dilemmas to enable better decision-making.
- Ensures compliance with professional rules of conduct and standards by communicating expectations.

Attention to Detail

Review completed work by monitoring and checking information, organizing tasks and resources efficiently, and assessing all areas involved in achieving an objective.

- Accurately completes documents and report logs to ensure accurate projections and reporting.
- Identifies and corrects own errors or omissions, where applicable, to ensure efficiency in emission reporting.
- Double-check the accuracy of information and work to provide accurate and consistent work.
- Establishes procedures or processes to validate gathered emission data to minimize disruptions to organizational emission estimates.
- Documents incidents or anomalies to monitor emission or environmental-related issues and correct future actions.



Emissions Audits

Supports and/or implements the creation and administration of all emissions reporting procedures and processes to streamline processes, meet compliance requirements, and improve data gathering.

- Reports and estimates should include all stages of emissions (and all scopes) to provide a clearer picture of the organization's overall emissions.
- Determines what facilities, processes, and business operations will be evaluated in calculating Scope 3 (indirect) emissions in an organization's upstream and downstream activities to establish a value chain of emissions.
- Reports emissions data according to existing reporting frameworks to ensure harmonized data and regulatory compliance.
- Assess gaps between current and upcoming reporting and any voluntary commitments to determine the following action plans.

Regulatory Compliance

Conducts site inspections, oversees corrective actions, and prepares reports to guarantee compliance with regulatory standards, internal policies, procedures, and client expectations.

- Applies working knowledge of regulatory requirements in all areas an organization operates to create metrics for each site that enable direct comparisons.
- Assesses regulatory commitments regularly to ensure continued compliance with any changes in standards.
- Evaluates established GHG emissions inventory to determine whether it exceeded the projected amount.
- Monitors changes in regulatory requirements and standards to be able to adapt organizational practices accordingly.
- Assists in incident reporting, investigation, and implementation of corrective actions to ensure they are correctly followed.
- Facilitates external audits by guiding on-site regulatory personnel to enable thorough and accurate emission audits.



Environmental Policy

Evaluates the sustainability of an organization's emissions monitoring, reducing, and counteracting policy(s) to develop sustainable alternatives to support business practices.

- Recommends strategies an organization could use to reduce their emissions and work towards net-zero emissions.
- Advises on reducing higher-than-average Scope 3 emissions to help an organization have a higher impact on reducing emissions beyond its direct operations.
- Identifies areas where emissions could be reduced to provide organizations with clear recommendations.
- Recommends improvements to GHG emissions management systems to understand better, quantify, monitor, report, and verify GHG emissions.

Long-Term Emissions Strategy and Modelling

Applies analyzed data to forecast how an organization may need to adapt to meet long-term regulatory requirements and internal emission goals.

- Advises organizations on GHG emissions management to keep immediate actions aligned with business strategy and risk management processes.
- Measures the impacts of GHG emissions on assets, liabilities, revenue, and expenses.
- Uses software to estimate a lifecycle analysis for emissions in industrial processes and gain a fuller picture of the extent of the organization's impact.
- Advises organizations on mitigation techniques in the event of any failure to meet compliance with emissions reporting requirements to reduce emissions and future inaccuracies.