

Job Class Profile: **Environmental Engineer**

Pay Level: **CG-44** **Point Band:** **1082-1135**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	8	6	2	5	8	6	6	3	3	
Points	373	100	13	24	240	130	124	64	32	1100

JOB SUMMARY

The Environmental Engineer is responsible for providing professional environmental engineering for multi- disciplinary and varied projects to ensure the protection of the environment from air, water and soil pollution. Work includes providing advice and recommendations relevant to pollution control, researching, developing and administering environmental legislation, preparing certificates of approvals for industrial operations, inspecting industrial operations, municipal water and waste water infrastructure and developing monitoring programs.

Key and Periodic Activities:

- Participates on National, Regional and Provincial Committees regarding water and waste water, environmental regulations and standards.
- Initiates development of policies and programs related to the control and management of pollution as set out in the Environmental Protection Act.
- Provides and/or coordinates environmental assessment/impact comments; provides advice and recommendations relevant to pollutions control.
- Conducts technical studies and modeling work for programs relate to drinking water, wastewater, storm water, water quantity and quality.
- Oversees consultant studies including development of Terms of Reference, proposal evaluation, contract negotiations, data collection review of study reports and payments to consultants.
- Inspects and reviews existing industrial operations, assesses engineering submissions for new industries or for new pollution control equipment for existing industries and advises on the acceptability of such controls. Prepares and administers Certificates of Approval for new industrial operations or modifications to existing industrial operations.
- Collaborates with industry and other governmental experts to develop monitoring programs and assess the results of government and industrial monitoring programs, computer modeling applications and other analytical methods.
- Negotiates process changes, equipment changes, additions or shutdowns with industry personnel to ensure compliance with environmental standards and legislation.
- Meets with special interest groups, general public and media to listen to concerns and explain departmental action and policy.

SKILL

Knowledge
<p>General and Specific Knowledge:</p> <ul style="list-style-type: none"> — Thorough understanding of a number of different engineering disciplines — Current trends and developments in a number of related specialized fields — Technology related to field — Contract procedures and policies <p>Formal Education and/or Certification(s):</p> <ul style="list-style-type: none"> — Minimum: Undergraduate degree in environmental engineering field and Professional Engineering Designation (i.e. P. Eng.) <p>Years of Experience:</p> <ul style="list-style-type: none"> — Minimum: 6 to 7 years work experience <p>Competencies:</p> <ul style="list-style-type: none"> — Project Management skills — Negotiation skills — Advanced computer skills — Ability to understand and develop contracts.
Interpersonal Skills
<ul style="list-style-type: none"> — A range of interpersonal skills are used to listen to information, ask questions, provide routine information, gain the cooperation of/motivate others, negotiate contracts/agreements, communicate complex ideas in layman's terms, promote products and ideas, provide information to co-workers, the general public and executives and make formal presentations. — Communications occur with co-workers, peers, supervisors/managers, other government staff, customers/general public and suppliers/contractors, department executives, industry clients and stakeholders, sales representatives, professional associations, and professional advisors. — The most significant contacts are with co-workers, the general public and management/executive when negotiating agreements/contracts, facilitating meetings and gaining cooperation of others, as well as, communicating information to others.

EFFORT

Physical Effort
<ul style="list-style-type: none"> — Work activities do not result in fatigue requiring periods of rest. — There is occasionally a requirement to move/lift objects up to 25 lbs. — Physical effort may include constant fine finger/precision work and sitting with periods of occasional standing, walking and driving. There is the requirement to inspect industrial sites/operations, water treatment facilities, construction sites, mines sites requiring occasionally walking and climbing and extended driving but most of the time incumbents are in the office environment at the computer.
Concentration
<ul style="list-style-type: none"> — Visual concentration is required to prepare and read reports, technical documents, design

<p>drawings, spreadsheets and data on a computer and hardcopy.</p> <ul style="list-style-type: none"> — Auditory concentration may include listening and communicating in person with supervisors and co-workers, and on the phone with internal and external stakeholders. — Olfactory/sense of smell may be required on industrial or water treatment sites to detect chlorine, sulphur and other hazardous substances/chemicals and hydrocarbons — While on-site, need to remain attentive for health and safety of self and others. — Additionally, there are constant time pressures for project approvals, deadlines and responding to emergency and information requests. — Exact results and precision is regularly required in calculating, data entry and analysis, evaluating contractual documents, detailed designs, and preparing legal documents.
Complexity
<ul style="list-style-type: none"> — Tasks tend to vary in complexity, requiring a range of skills and knowledge to complete activities. — Tasks tend to require different solutions, occasionally there are guidelines to follow, but often creative solutions must be developed to assist industry to meet legislative guidelines. Regulations, guidelines and technology are constantly changing so this needs to be researched and revised. Industrial monitoring programs are developed specific to each industry and/or site. Environmental issues vary considerably and solutions must be developed. — Tasks regularly have strategic or policy significance. — Materials/resources available include Environmental Protection Act and regulations, guidelines, industry best practices, standard operating procedures, departmental reference materials, reference codes and standards, policies and procedures, industry best practices, scientific journals, software manuals, and co-workers.

RESPONSIBILITY

Accountability and Decision-Making
<ul style="list-style-type: none"> — Work tasks are somewhat prescribed or controlled. — Considerable independent professional judgment, action and decision-making is required in conducting research and performing technical analysis, evaluating proposals, developing and ensuring compliance with monitoring programs, making recommendations/providing technical advice conducting site visits and investigations. — Requires approval for purchases, departmental commitments and policy changes and awarding contracts.
Impact
<ul style="list-style-type: none"> — Decisions and recommendations or advice/interpretations provided generally have an impact on work area, department, organization, and on customers/clients/general public. Additionally, impacts on facilities, the environment, finances, information, material and human resources, processes and systems, health and safety, and corporate image. The most extreme impacts are on the environment, industry, general public. — Work activities can either negatively or positively impact the environment, industrial projects, and new initiatives for green technology. Depending on the nature of the impact, errors could be found and solved in a relatively short time period, or may have longer lasting impacts and

possibly injury to the public.

Development and Leadership of Others

- There is no supervision of staff.
- May be required to perform a wide range of tasks such as providing on the job advice, guidance, direction, feedback, orientation to new employees, on-the-job training, acting as technical mentor, delegating/allocating tasks, leading a project or technical team, acting as a team leader, organizing, coordinating, reviewing/checking the work of colleagues, contractors and/or students.

WORKING CONDITIONS

Environmental Working Conditions

- Required to wear safety equipment such as safety boots, hard hat, safety vests, safety glasses and personal protection measures when in the field/on-site.
- The likelihood of serious injury or illness is limited but the potential exists.
- Works mostly in an office setting but spends a small amount of time on industrial, water treatment or construction sites. May be exposed to a variety of undesirable working conditions, including but not limited to unusual/distracting noise, limited lighting, dirt/dust/garbage, glare, dangerous heights/depths, wet or slippery surfaces, physical dangers/threats, adverse weather conditions, and travel.