

Environment Health and Safety Professionals

Environment health and safety (EHS) professionals help protect the lives and well-being of workers, the public, and the environment by implementing safeguards and safety programs. There are diverse opportunities for EHS professionals across Canada's energy industry. EHS professionals contribute in many ways to sustainability and environmental protection.

This career path will appeal to you if you enjoy investigating and solving problems. You are also skilled at observing and evaluating your surroundings, and critical thinking and decision-making. Your attention to detail, commitment to learning, and ability to adapt to changing environments makes this role a great fit for you.

Established Energy Sectors:

Oil and Gas

Offshore Oil and Gas

Oil Sands

Energy Services

Pipelines

Refining

Emerging Energy Sectors:

Biofuels

Hydrogen

Liquefied Natural Gas (LNG)

Carbon Capture and Storage (CCS)

For energy sector definitions, go to
CareersinEnergy.ca



What Environment Health and Safety Professionals Do



Evaluate and Monitor

EHS professionals are responsible for evaluating public and environment health and safety hazards related to company operations and practices. Consistently monitoring hazards allows for early detection and prevention of workplace accidents and issues. This way, companies reduce risks and ensure compliance with health and safety measures.



Develop Policies, Programs, and Procedures

EHS professionals apply their skills and knowledge to develop policies, programs, and procedures. This work is intended to protect the health and safety of workers, the public, and the environment. EHS professionals also guide emergency responses. EHS programs and training helps leaders and workers to put EHS practices in place and ensure compliance and a safe workplace.



Conduct Inspections

EHS professionals inspect workplaces, field sites, and facilities. The inspections help to tell if the sites are following the rules and how to work with supervisors to make improvements. Tools EHS professionals use to support compliance and safety include policies, safety guidelines, environmental regulations and complaint and incident investigations.



Investigate Workplace Incidents and Near Misses

EHS professionals perform incident investigations and complete reports and follow ups to prevent recurrence.



Interact with Regulatory Agencies

EHS professionals work with the agencies that create regulations to discuss the purpose of the regulations and implications to company practices.



Advise, Coach, and Mentor Internal Stakeholders

EHS professionals share their expertise with company workers, including leadership teams. They offer advice, coaching and mentoring to staff about EHS responsibilities, practices and risks.

Key Skills and Abilities EHS Professionals Need

This chart shows skills, certifications, and personal attributes EHS professionals need to enter and advance their career in the energy industry. Each occupation, job level, and responsibility will require a different mix of these skills and abilities. Employers will often provide training to support employee career development.

Core Knowledge

Environmental impact assessments	Emergency management procedures
Environmental site assessments	Industry and sector-specific processes, standards, and regulations
Environmental sustainability planning	OHSA (Occupational Health & Safety Act) Standards
Map reading and use of GIS mapping tools	Environmental approval and licensing
Hazard assessment and safety procedures	

Technical Skills

Data analysis using tools such as Excel and Power BI

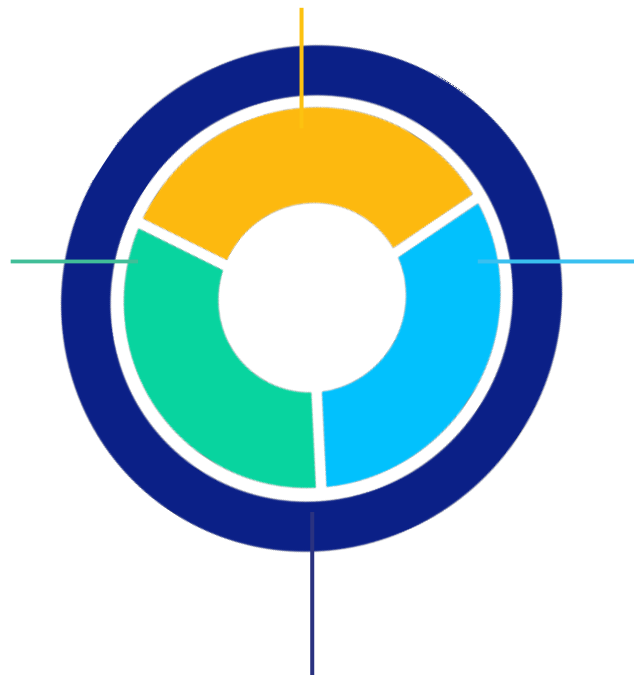
Monitoring and field testing to identify issues with fish, wildlife, and environmentally sensitive areas

Analyzing data and preparing reports

Operation of field monitoring equipment (e.g., GPS, data loggers, and communications devices)

Management systems such as ISO 14001 and company-specific safety and environmental management systems

Investigation skills



Beneficial Certifications

Class 5 Drivers Licence plus a clean abstract

Canadian Registered Safety Professional (CRSP)

First Aid

Industry-specific certifications/training:

- H2S Alive
- LOTO (lockout/tag out)
- Fall Protection
- Confined Space Entry
- Ground Disturbance

OH&S (Occupational Health and Safety)

Management Systems or Process Safety Systems

WHMIS (Workplace Hazardous Materials Information System)

Personal Attributes

Attention to Detail

Collaboration

Active Learning

Leadership

Adaptability

Concern for Others

Analytical Thinking

Independence

Oral Communication

Stress Tolerance

EHS Professional Careers in the Energy Industry

There are different types of education requirements for the EHS professional. Entry to an EHS career in energy can start with relevant education, or education combined with related job experience. The chart shows how roles and educational requirements change for each career level. As you advance your career, your education and experience can help you to move across the various sectors in the energy industry.

Career Level	Entry	Mid	Senior
Types of Jobs	Environmental Monitor	Environmental Planner	Reclamation/Remediation Specialist
Minimum education and/or experience typically required	Environment Health and Safety Coordinator Environment Health and Safety Technician/Technologist	Environmental Site Coordinator Inspector (Hazardous Waste, Pollution Control, and/or Water)	Senior EHS Advisor/Program Manager Compliance Manager
Helpful disciplines:	Environment Field Technician	Environment Health and Safety Advisor	EHS Manager/Director
Environmental science, biology, engineering, natural resource management, geography, or land reclamation	Environment/Safety Auditor	Environment/Safety Management Systems Specialist	Safety & Reliability Director
	1- to 3-year college diploma	Reclamation /Remediation Specialist	EHS Vice-President
	4-year university degree		4-year university degree
	Relevant trade and experience may be considered equivalent	1- to 3-year college	CRSP (Canadian Registered Safety Professional) designation
	Canadian Registered Safety Technician (CRST)	4-year university degree	Professional designation in specific disciplines such as P.Bio; P.Chem; P.Eng; P.Ag; P.Geo
	CTech (Certified Technician) or Certified Technologist (AScT, CET): college diploma and a minimum 2 years of relevant experience	Canadian Registered Safety Professional (CRSP) designation	
		Professional designation in specific disciplines such as P.Bio; P.Chem; P.Eng; P.Ag; P.Geo	

Transferring Environment Health and Safety Professional Skills from One Energy Sector to Another

There are core skills and knowledge that all EHS Professionals need for their careers. These building blocks apply across all energy sectors and for all specializations.

The following flow charts present the core skills and knowledge engineers need as building blocks. It will also identify evolving skills needed to address the needs in each energy sector. Each energy sector uses the building blocks in different ways.

New entrants to an EHS career can use the diagrams to understand the building block skills needed to work in sectors across the energy industry. Experienced EHS professionals can use the diagrams to explore how each building block is applied across the energy sectors.

Skill: Knowledge of operational processes and compliance requirements

Skill attributes

Sector



Skill: Understanding of industrial hazards and risk management and responses

Skill attributes	Sector	
Ongoing assessment of risks such as chemical, equipment, and materials handling	Oil and Gas	
Ongoing assessment of risks, such as:	working in a marine environment	Offshore Oil and Gas
	working around steam at high pressure	Oil Sands
	transporting and handling materials, equipment, and chemicals in varied weather and ground conditions	Energy Services
	pipeline processes and operational risks	Pipelines
	hydrogen, materials, and equipment handling	Hydrogen
	CO2, equipment, and materials handling	Carbon Capture and Storage (CCS)
	fuel, equipment, and materials handling	Liquefied Natural Gas (LNG)
	chemical, equipment, and materials handling	Refining
	feedstock, materials, and equipment handling	Biofuels
Identification of industrial hazards	All sectors	
Solving, controlling, and preventing risks	All sectors	
Emergency response procedures	All sectors	
Handling equipment and materials in varied weather conditions	All sectors	
Materials and equipment handling	Pipelines	

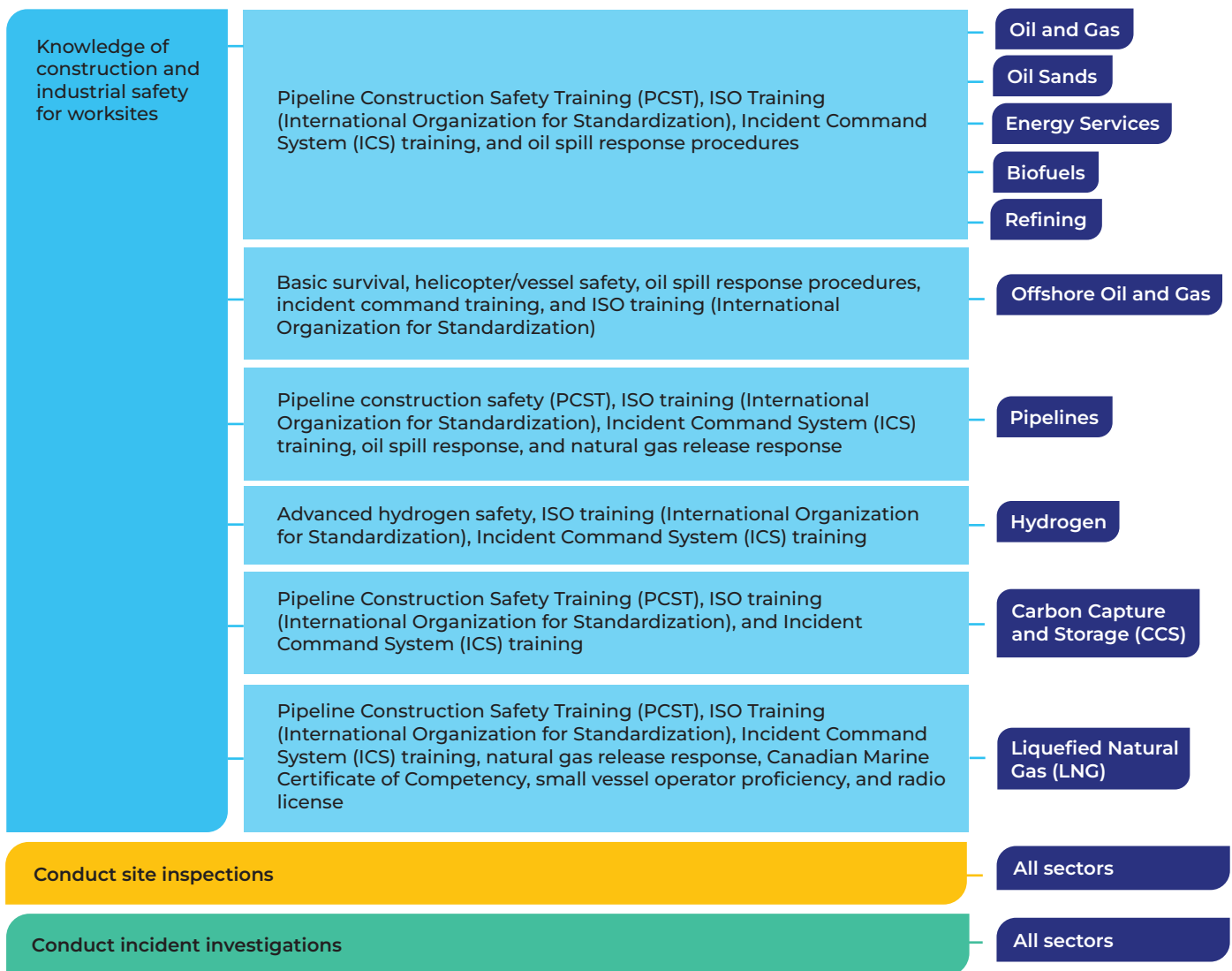
Skill: Knowledge of requirements for environmental approvals, licences, and permits

Skill attributes	Sector
Knowledge of environmental permits required to carry out project activities	All sectors
Required conditions for the protection and safety interests of the public; environment, and marine- or wild-life	

Skill: Knowledge of safety programs, practices, and certifications for industrial operations

Skill attributes

Sector



Skill: Ability to implement company sustainability goals and ESG (environment, social, and governance) risk management

Skill attributes

Sector



Career Outlook for Environment Health and Safety Professionals



Projected labour shortages

The demand for workers is projected to be greater than the supply of available workers.

Source: Careers in Energy, National Labour Market Outlook to 2035



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Funded in part by the Government of Canada's
Sectoral Workforce Solutions Program.