

# Ministry of the Environment & Climate Change

## Mineral Exploration & Mine Development

Presented at: Treasury Metals

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# Objectives

- Overview of MOECC
  - Legislation
  - Policies
  
- Overview of MOECC
  - Inspections program

# Legislation

- MOECC Provincial Officers are designated under the following legislation:
  - *Ontario Water Resources Act (OWRA)*
  - *Environmental Protection Act (EPA)*
  - *Pesticides Act*
  - *Safe Drinking Water Act*
  - *Nutrient Management Act*
  - *Environmental Assessment Act*
- Under each Act, there are many Regulations. All environmental legislation can be viewed on the website [www.e-laws.gov.on.ca](http://www.e-laws.gov.on.ca)

# Ontario Water Resources Act

- **Certificate of Approval – Private Sewage Works:**
  - Required under Section 53 if the system(s) has a treatment capacity of over 10,000 liters per day (otherwise approval is through the Health Unit).
  - The treatment capacity is based on the 1997 Ontario Building Code (Part 8).
- **Permit to take Water:**
  - Required under Section 34 for any taking of (surface or ground) water exceeding 50,000 litres in a day.

# Ontario Water Resources Act

- **Ontario Regulation 903:**
  - Wells must be drilled and abandoned in accordance with the Regulation.
- **Certificate of Approval - Industrial Sewage:**
  - Required under Section 53 for industrial sewage works construction and discharge (e.g. tailings ponds, mine water discharge, oil/water separators).
- General prohibition against discharging materials of any kind into surface waters or to land where it may enter surface water, that may impair the quality of the water.

# Environmental Protection Act

- **Certificate of Approval - Air:**
  - Required by s. 9 of the EPA for the discharge of contaminants to air.
  - Also requirements under Regulations, e.g. Ontario Regulation 419.
- General prohibition against discharge of contaminants into the air.
- **Certificate of Approval – Waste Disposal Site (Landfill)**
  - Required under section 27 for a waste disposal site.
- General prohibition against disposal of waste except in an approved waste disposal site.

# Environmental Protection Act

- **Liquid/Hazardous Waste Management**
  - Ontario Regulation 347 (pursuant to the EPA), requires that a generator of liquid industrial or hazardous waste register as a generator if at a site, more than 25 litres of subject waste is generated in one month.
  - Field operations are exempted from needing registration.
  - Subject waste includes, for example, waste oil, contaminated fuel or waste petroleum distillates (mineral spirits).
- **Spills:**
  - Section 92 requires that anyone who caused, permitted or knows of a spill to **forthwith** make a report of such to the Ministry (24 hour Spills Action Centre at 1-800-268-6060).
  - Everything practicable shall be undertaken **forthwith** to prevent, eliminate and ameliorate the adverse effect of a spill and to restore the natural environment.

# Environmental Protection Act

- Ontario Regulation 560/94 Effluent Monitoring and Effluent Limits – Metal Mining Sector establishes:
  - Calculation of Loadings and Concentrations
  - Parameter and Lethality Limits
    - Acute Lethality Testing & Chronic Toxicity Testing
  - Monitoring
    - pH, cyanide, suspended solids, copper, lead, nickel, zinc & arsenic
  - Effluent Volume
  - Storm water
  - Records & Reports
    - Public reporting requirements – June 1<sup>st</sup>.



# Surface Water Requirements

- The Ministry of Environment and Climate Change (MOECC) will require stringent effluent limits to be included as part of the Environmental Compliance Approval (ECA).
- Effluent limits are enforceable benchmarks that MOECC will require the company to meet for all site discharges.
- Final effluent limits are developed taking into consideration the Ministry's "Deriving Receiving-Water Based, Point-Source Effluent Requirements for Ontario Waters, July 1994" (Procedure B-1-5).
- Receiving water targets will be set at Provincial Water Quality Objectives (PWQO) or other scientifically defensible surface water criteria. PWQO's are set at a level of water quality which is protective of all forms of aquatic life and all aspects of the aquatic life cycles during indefinite exposure.

# Environmental Approvals

- Activities regulated under the Environmental Protection Act, R.S.O 1990, Chapter E.19, and the Ontario Water Resources Act, R.S.O 1990, Chapter O.40, must be carried out in accordance with those Acts, the applicable regulations and the guidelines administered by the ministry.
- In many cases that will require the obtaining of an approval under Part II.1 of the Environmental Protection Act (EPA). The ministry updates these requirements from time to time, as the environmental standards and environmental management approaches evolve and develop.
- By law, a business must have an environmental approval or registration from the Ministry of the Environment and Climate Change if it:
  - releases pollutants into the air, land or water
  - stores, transports or disposes of waste
- An environmental approval or registration sets out rules of operation for these activities that are intended to protect the natural environment and are legally enforceable.

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# Inspections

- Inspections are a proactive mechanism to assess facilities for compliance with ministry requirements and audit information provided to the ministry.
- Inspections can be planned or responsive, scheduled or unscheduled and are completed for a number of reasons (e.g. in response to complaints, general audit purposes etc).
- The goal of inspections is to promote awareness of the requirements in Ontario and to minimize overall environmental and human health impacts.
- Powers of Provincial Officers - s. 156

# Inspections

- During the inspection, the Provincial Officer will:
  - Meet with staff to discuss the purpose of the inspection.
  - Conduct a visual inspection of the works, taking notes, pictures, and samples where appropriate.
  - Review permit/legislative requirements.
  - Review, and as necessary, copy documentation retained at the facility.
  - Provide comments regarding potential compliance issues noted during the inspection and discuss potential corrective actions.
- Following the inspection, the Provincial Officer will complete an inspection report and mail it to the company.

# Compliance Issues

- Compliance issues noted during the inspection will be recorded in a ministry incident report.
- Incident reports are used to track the compliance issue and response actions undertaken by both the ministry and the company.
- A compliance issue will be evaluated to determine whether it constitutes:
  - A known or anticipated human health or environmental impact or
  - A potential, uncertain environmental hazard.

# Compliance Issues

- Depending upon the circumstances (e.g. type of non-compliance, type of facility, and compliance history) and following the ministry's Compliance Policy\*, the Provincial Officer may:
  - In the case of an emergency or spill that poses an immediate danger to human health or to the environment, require immediate action to be taken.
  - Undertake a voluntary abatement plan or a mandatory abatement plan (e.g. issue a Provincial Officer's Order).
  - Issue a ticket under Part I of the Provincial Offences Act.
  - Refer the issue to the ministry's Investigation and Enforcement Branch.

\*Available on the ministry's website [www.ene.gov.on.ca](http://www.ene.gov.on.ca)