

Alberta Compulsory Industry Monitoring

Alberta Environment and Parks regulates a wide range of industrial facilities in the province under our mandated legislation. This is most commonly done through conditions set out in approvals, codes of practice. Approvals and codes of practice are designed to ensure the environment is protected from a facility's operations. The approval sets out conditions for a facility's operations, including the type of monitoring the facility must conduct.

Compulsory monitoring is consistent with the "polluter pays" principle. The objective is to obtain reliable data on the environmental performance and impacts of industrial operations. Compliance inspections conducted by the department ensure that monitoring is conducted in accordance with approval or code requirements.

Purpose of Monitoring

Compulsory industry monitoring serves a number of purposes for both industry and the government, including:

- Ensuring that pollution control technologies are operating effectively
- Providing an early warning system for potential contamination issues
- Characterizing complex emissions to determine potential environmental impacts
- Providing information for provincial and national emission inventories that are used in environmental management
- Assessing the impact of releases on the environment
- Providing data for tracking trends in environmental performance and effects

Compulsory monitoring provides essential information on the environmental performance and impact of industrial operations.

Types of Monitoring

Compulsory industry monitoring can cover a wide range of environmental issues depending on the

nature and complexity of the particular industrial operation.

For example, approvals for large industrial operations may include the following types of monitoring:

- Air emissions
- Wastewater and potentially contaminated stormwater releases
- Groundwater
- Soil
- Treated sewage releases
- Drinking water
- Hazardous wastes
- Ambient air and water quality

The intent is to require monitoring of all emission sources and components of the environment that could be impacted.

Specific Monitoring Requirements

Monitoring requirements are tailored for each industrial operation based on the types and quantities of emissions. Therefore, monitoring requirements vary within industry sectors. Monitoring requirements specifically outlined in approvals and codes of practice specify:

- Monitoring or sampling locations
- Frequency of monitoring or sampling, e.g. continuous, three times per week, etc.
- Type of sample. e.g. online, composite
- Parameters to be measured
- Monitoring method(s)
- Analytical method(s)
- Data recording, record keeping and reporting (note: any measured exceedance of a performance limit must be reported immediately)

In general, the larger the emission source or the greater the potential for environmental impact, the more frequent and detailed the compulsory monitoring requirements will be.

Quality Assurance/Quality Control (QA/QC)

Compulsory industry monitoring is important to the department. The monitoring results verify the general environmental performance of an industrial operation.

The results also help the department assess compliance with specific performance requirements. It is a serious offense to fail to provide the required monitoring information or to provide false information.

It is in the interest of both government and industry to take measures to ensure the reliability of compulsory monitoring information. To ensure the credibility of industry compulsory monitoring programs, Alberta Environment and Parks:

- Establishes specific monitoring protocols, e.g. Alberta Stack Sampling Code and Air Monitoring Directive
- Undertakes spot audits of industry monitoring
- Inspects industries
- Undertakes monitoring programs to verify industry monitoring
- Reviews industry QA/QC procedures
- Reviews compulsory monitoring data for anomalies or inconsistencies
- Takes action immediately to address monitoring reliability issues including enforcement action if appropriate.

For More Information

For more information on compulsory industry monitoring, contact the Alberta Environment and Parks regional office nearest you.

Environmental Monitoring

More general monitoring of the environment is done by the Alberta Environmental Monitoring, Evaluation and Reporting Agency (AEMERA), a provincial, arm's-length organization established in 2014 to monitor, evaluate and report on key air, water, land and biodiversity indicators. This information is used by policy makers, regulators, planners, researchers, communities, industries and the public.

The role of AEMERA is to provide proactive, objective reporting of scientific data and information on the condition of Alberta's environment, including:

- Baseline environmental monitoring
- Cumulative effects monitoring
- Data evaluation and management
- On-going condition of environment reporting in all regions of Alberta
- Credible data, evaluation, knowledge and reporting to inform policy and regulatory decision-making

To learn more about AEMERA, go to: aemera.org

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- aep.alberta