

Crude Oil, Natural Gas & Chemical Manufacturing Fact Sheet Hazardous Waste Management in BC

The oil, gas and chemical manufacturing industries produce a variety of wastes during the course of their operations, which range from exploration, drilling, production to refining. For example:

- During the drilling of oil or gas wells, chemical additives used in the process may contain low levels of naturally occurring radioactivity and may impact the drill cuttings discharged to the drill sump.
- Production wastes often have spent chemicals or excess chemical not used.
- Spill debris and other hydrocarbon contaminated soils or wastes may contain lead, chromium, other heavy metals or hydrocarbons.
- Contaminated sludge may be created in certain production processes.
- Certain wastes from testing of drill pipe, pipelines and barium sulphate sludges may contain low levels of radioactivity.
- Some gas plants, heavy oil, refining and chemical manufacturing facilities treat process waste water that results in production of sludges that may be characterized as hazardous wastes.
- Maintenance of vehicles, pumps, compressors and other production equipment results in waste oil, filters, oily rags, solvents, batteries and other wastes.

Managing Hydrocarbon & Chemical Hazardous Wastes

Generators in the crude oil and natural gas sector are encouraged to work with the publication developed by the Canadian Association of Petroleum Producers on waste (www.capp.ca) to help identify their wastes.

Petroleum refineries also produce waters containing oil and grease, suspended solids, phenols, sulphides and ammonia nitrogen. Sludge from various process streams can contain benzene, phenols, and poly-aromatic-hydrocarbons as well as trace metals.

Chemical manufacturers also produce a large variety of wastes that are subject to the BC Ministry of Environment hazardous waste requirements covering the generation, storage, transportation and management of hazardous waste.

Some of the products whose manufacture can generate hazardous waste:

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|----------------------------------|--------------------|--------------|
| • Industrial inorganic chemicals | • Synthetic rubber | • Pigments |
| • Industrial organic chemicals | • Synthetic fibres | • Explosives |
| • Gum and wood chemicals | • Plastics | • Pesticides |

The many different processes used in the chemical manufacturing industry result in a large number of specific wastes. Maintenance and turnaround wastes may also generate hazardous waste.

BCEIA

British Columbia
Environment Industry
Association



www.bceia.com

Hazardous Waste Management

Companies that generate hazardous wastes have a responsibility to manage the wastes in compliance with the **Hazardous Waste Regulation** and the **BC Environmental Management Act**. The wastes must be properly characterized, stored, labeled, transported and disposed of.



The generator of hazardous wastes also has the responsibility to properly Manifest it before tendering it to a licensed waste transporter and an authorized waste receiver/processor. Generators must also obtain a BC Generator Registration Number, depending on the quantity of waste produced or stored. Please refer to the fact sheet: **Generators of Hazardous Waste** for a more comprehensive explanation of a generator's responsibilities.

There are penalties for non-compliance in the forms of fines and possible imprisonment. Please refer to **Section 10, Division 1 of the Environmental Management Act** for further details.

If you are unsure if a particular waste is hazardous, you should retain the services of a qualified hazardous waste consultant, or contact a reputable hazardous waste management company for advice.

Hazardous Waste Manifest

The Hazardous Waste Manifest System keeps track of:

- The date, type, characteristics, quantity and origin of hazardous wastes
- Identity of the transporter of the wastes
- Proof of delivery of waste to the designated waste management site

It also provides a signed record (Manifest copy) for all parties, confirming that the wastes have been received and how they are intended to be managed.

For Further Information:

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Need More Information?

Contact the nearest regional office of the BC Ministry of Environment. A list of regional offices can be found at <http://wlapwww.gov.bc.ca/regops/contacts.html> Or you can find your nearest Ministry of the Environment office by phone.

Victoria: (250) 387-6121

Vancouver: (604) 660-2421

Elsewhere in BC: 1-800-663-7867

Outside BC: (604) 660-2421

There are links to the relevant legislation, as well as other helpful information on the BC Ministry of Environment's Hazardous Wastes Homepage, <http://www.env.gov.bc.ca/epd/hazwaste/index.htm>

For more specific information please see the other fact sheets in this series

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002 *Generators of Hazardous Waste*

003 *Selecting a Hazardous Waste Transporter*

004 *Selecting a Hazardous Waste Receiver/Processor*

005 *Transporters of Hazardous Waste*

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011 *Oil, Gas & Chemical Manufacturing*

012 *Government & Institutional Generators*

or visit Hazardous Waste BC at
<http://www.hazwastebc.com>