



Water Bodies and Spills

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Watertech 2014

Spill Response and Sensitive Ecosystems

Watertech 2014

Purpose of Presentation

- » Review definition of water body, when dealing with a release to the environment
- » Review section 112 of the *Environmental Protection and Enhancement Act (EPEA)* as it relates to spill response
- » Review associated plans required in the event of a spill incident

Spill Response and Sensitive Ecosystems

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» Water Body (the *Water Act*)

- » “Any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but not limited to wetlands and aquifers.”
- » When dealing with a spill or release, the *Environmental Protection and Enhancement Act* and the *Water Act* are the applicable legislation.

Water Bodies

- 》 Wetlands: land saturated with water long enough to promote formation of water altered soils, growth of water tolerant vegetation and various kinds of biological activity that are adapted to wet environment
 - 》 muskeg systems (e.g., bogs, fens, marshes, and shallow water)
- 》 Provincial Wetland Restoration/ Compensation Guide

<http://environment.alberta.ca/01126.html>

Environmental Protection and Enhancement Act

Environmental Protection & Enhancement Act (EPEA)

Duty to take remedial measures

112(1) Where a substance that may cause, is causing or has caused an adverse effect is released into the environment, the person responsible for the substance shall, as soon as that person becomes aware of or ought to have become aware of the release,

(a) take all reasonable measures to

(i) repair, remedy and confine the effects of the substance, and

(ii) remediate, manage, remove or otherwise dispose of the substance **in such a manner as to prevent an adverse effect or further adverse effect,**

And

(b) restore the environment to a condition satisfactory to the Director.

The *Environmental Protection and Enhancement Act*

Adverse Affect?



The *Environmental Protection and Enhancement Act*

Adverse Affect?



The *Environmental Protection and Enhancement Act*

Minimizing Impacts



The *Environmental Protection and Enhancement Act*

Minimizing Impacts



Action Plans

- 》 Several versions over the life span of a release incident
- 》 Ensures that all parties are aware of what is going on
- 》 Ensures that there is clear messaging throughout the release response

Action Plans

- » The number of action plans to be submitted will depend of several factors
 - » Magnitude of release
 - » Receptors impacted
 - » Impacts to wildlife or fish habitat
- » Require regular updating and should be considered “living documents”

Action Plans

- 》 Mandatory approved plan required to consider moving from emergency to operations phase on incident response
 1. Containment/Recovery Plan
 2. Wildlife Plan
 3. Waste Management Plan
 4. Communications Plan
 5. Short-Term Remediation Plan

Actions Plans

1. Containment/Recovery Plan

- » Outlines the containment measures to be implemented and how released products are to be recovered

2. Wildlife Plan

- » Outlines the details of the wildlife mitigation measures to be implemented and wildlife monitoring program

Actions Plans

3. Waste Management Plan

- » Outlines the details of the proposed waste handling and disposal options
- » Outlines any proposed soil treatment for waste generated
- » Outlines all anticipated waste stream details

Actions Plans

4. Communications Plan

- » Outlines the proposed process for handling communications related to the incident
- » Outlines the parties to be included in the communication process and what methods of passing on information will be implemented

Action Plans

5. Short-Term Remediation Plan

- Outlines details of the proposed delineation methods to be used to determine environmental impacts
- Outlines details of the proposed remedial measures to be implemented at the early stages of the release response
- Deals mainly with surface issues and concerns from the release

Action Plans

Long-term remediation plan

- » Outlines the details of the impact assessment work to be carried out, including detailed soil and groundwater sampling, surface water sampling, and other related assessment work to be completed
- » Outlines the long-term remedial action plans based on preliminary results obtained through impact assessment work outline above

Action Plans

Risk Assessment

- Outlines details of the proposed detailed investigation work to be carried out to determine end point for remediation and reclamation
- Requires extensive site investigation work and submission to a higher level of review within regulatory bodies

Action Plans

Reclamation Plan

- » Outlines the details of the measures that will be taken to try to restore the release location back to its natural state

Call Us

» 24-hour emergency line

» 1-800-222-6514

» General information and inquiries

» 1-855-297-8311

» www.aer.ca