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The Hazardous Waste Regulation and the Contaminated Sites Regulation vis-à-vis Contaminated Site Remediation Activities

A Presentation to the:

Contaminated Sites Approved Professionals Society

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by

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Key Legislation, Regulations

LEGISLATION:

- **Environmental Management Act**

REGULATIONS:

- **Hazardous Waste Regulation**
- **Contaminated Sites Regulation**



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A Brief History of Recent HWR Regulatory Amendment Activity

- 2004:**
 - SWR re-named HWR
 - Harmonized with “CL” TDGR
- 2006:**
 - Minor & Housekeeping
- 2008:**
 - Minor & Housekeeping
- 2014:**
 - Substantive Amendments

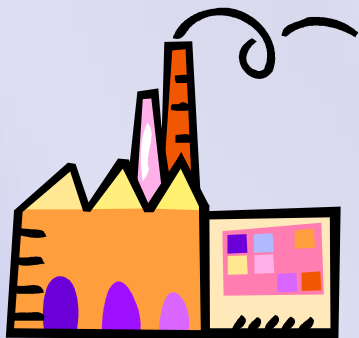


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Hazardous Waste Regulation “Cradle – to – Grave” Management of Hazardous Waste

Responsible Parties



Generator



Carrier



Receiver



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Hazardous Waste Regulation “Cradle-to-Grave” Management

- **Definition/Classification of Hazardous Wastes (HW)**
- **Generator Registration & On-Site Storage of HW**
- **Transportation of HW**
- **Treatment/Disposal of HW**
 - **On-site**
 - **Off-site**



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Hazardous Waste Definition and Classification

- **Listed HW**
 - from generic and specific sources
- **Characteristic HW**
 - flammable, reactive, toxic, corrosive, leachable toxic
- **Designated HW**
 - waste oil, waste containing PAHs, etc.



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Common/Anticipated HW Types in Context of Contaminated Site Remediation Work

- **Contaminated Soils Containing Hydrocarbons, Metals, Other Organics**
- **Contaminated Site Water including:**
 - **Groundwater**
 - **Pit & Trench Water;**
 - **Precipitation Runoff**
 - **Surface water**
- **Recovered hazardous wastes in buried drums, etc.**



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Generator Registration

- **HW generated in a 30 day period or stored at any time in quantities exceeding specified waste type thresholds (HWR – Sch. 6)**
- **Consignor ID Number (BCG) issued by MOE**
 - **Used on all manifested shipments transported to off-site management facilities**



Storage/Treatment/Disposal of Contaminated Soils

- **On-site**
 - **Regulatory authorization (permit by rule) for:**
 - **Storage**
 - **Treatment/Disposal, incl. in-situ**
 - **Permits for landfills, except those established for contaminated sites remediation activities**
- **Off-site:**
 - **Generator registration**
 - **Licensed carrier**
 - **Authorized receiver**



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Storage/Treatment/Disposal of Contaminated Soils

(cont'd)

HWR Part 3: Operational Requirements for All Facilities

- **Plans, waste information and records**
- **Weather protection**
- **Access security**
- **Prevention (fire, explosion, accidental reactions)**
- **Spill protection**
- **Emergency systems testing**
- **Training**
- **Closure**



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Storage/Treatment/Disposal of Contaminated Soils

(cont'd)

- **HWR Part 4: Additional Requirements**
 - **Div 2: Storage Facilities**
 - **Div 3: Treatment Facilities**
 - **Div 4: Incinerators and Thermal Facilities**
 - **Div 5: Mobile Facilities**
 - **Div 6: Secure Landfills**
 - **Div 7: Waste Piles/Surface Impdmnts/Land Treatment**



Transportation of Hazardous Waste

Requirements for:

- Licensed carriers (i.e.: LT) – S. 45
- Manifests – S. 46
- Containers and labeling – S. 50
- Confirming receipt of wastes by receiver – S. 46 (8.1)
- Waste ownership and associated liability – EMA S. 132



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Additional Hazardous Waste Regulatory Tools

Section 2(8):

- “Limited exemptions for mine tailings”

Section 2 (11) & (12):

- “Historical hazardous waste contaminated sites”

Section 41.1:

- “HC contaminated soil”

Section 51:

- “Change in requirements”

Section 53:

- “Delisting”



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Management of Hazardous Wastes at Historical Hazardous Waste Contaminated Sites

Definitions

- **"historical hazardous waste contaminated site"**
means any land or groundwater which
 - (a) was contaminated with hazardous waste on or before April 1, 1988, and
 - (b) is no longer used for any activity which adds new hazardous waste contamination to the land at that location;



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Management of Hazardous Wastes at Historical Hazardous Waste Contaminated Sites

Definitions (cont'd)

- **"facility"** means any works that are designed to or do handle, store, treat, destroy or dispose of hazardous waste, and includes recycle facilities, storage facilities, treatment facilities, incinerators, thermal treatment facilities, mobile facilities, secure landfills, piles, surface impoundments, land treatment facilities, secure buildings and **in situ management facilities**, but does not include an **historical hazardous waste contaminated site**;



Historical Hazardous Waste Contaminated Sites

Limited Exemptions: Section 2 (11) & (12)

- **2(11)**
 - **Subject to S. 2(12), specific conditional exemptions for “facilities” managing hazardous waste from a historical hazardous waste contaminated site**
- **2(12):**
 - **Director may impose conditions to accomplish the same purpose as exempted regulatory provisions**



Historical Hazardous Waste Contaminated Sites

Limited Exemptions: Section 2 (11) & (12)

- **Part 2, Section 3:**
 - generic siting standards
- **Part 3, Sections 6 – 13:**
 - generic facility operational requirements, except “operational plan” (S. 4), waste information (s. 5) & closure plan” (S. 14)
- **Part 4, Sections 25, 28 and 33:**
 - additional siting standards



Section 41.1 “HC contaminated soil”

- Applies to specified soils only
- Management Options:
 - Treatment or storage:
 - Use in manufacturing asphalt
- Conditions associated with the exemptions
- Residue management
 - Landfill & Other



Sections 51 & 53

“Change in requirements” & “Delisting

S. 51 Change in Requirements

- For management situations that do not “fit” the regulation
- Most common tests for director’s “approval”:
 - equal or better protection, or
 - site specific conditions mitigate any hazard
- Appealable

S. 53 Delisting

- Essentially a means of “deregulating” select hazardous wastes and treatment residues for management as non-hazardous wastes through director-approved protocols; e.g.:
 - Protocol for Delisting Residues from Treatment or Incineration of Hydrocarbon Contaminated Hazardous Waste Soil
 - *Protocol for Regulation of Petroleum Hydrocarbons in Water under the Special Waste and Contaminated Sites Regulation (former CSR protocol 7)*



What should the AP be looking for?

- Type and quantity of haz waste soils, groundwater, runoff , etc.
- Does the haz waste pre-date 1988 with no subsequent additions
- Proposed management: on site or off-site
- If on-site management, facility type (e.g.: waste pile, landfill, in-situ)
- Review & determine how to satisfy applicable Part 4 provisions, per facility type
- Determine if a Section 51 is required & how to satisfy S. 51(7)
- If in-situ management, determine how to satisfy director's requirements under 2(12) (typically CSR reqmts, contact director)
- Is consultation appropriate? (it may be required by the director)
- If in-situ facility, director's prior approval required before construction



What are the common errors/omissions?

- Lack of understanding of applicability of HWR to contaminated sites
- Lack of appropriate testing of soils to identify hazardous waste
- Confusion around whether and what “facility” applies?
- Difficulty in reconciling applicable HWR requirements to contaminated sites (for S. 51 exemption)
- For in-situ facilities, lack of understanding around director’s requirements under S. 2(12) – effectively substitution of CSR requirements for “closure plan”
- Incomplete reporting (site description, management plan, facility design, RA of residuals (e.g.: contaminant plumes, vapours))
- Lack of adequate consultation



Examples of On-Site/In-Situ facilities?

1990s – CSR process substituted under 2(11) & 2(12)

- 9250 Oak St, Vancouver - approved under Order
- former Nexen site, Squamish – in-situ haz waste removed
- Domtar, Coquitlam – never approved

2000s – 6 sites

- former gun club site – secure landfill/in-situ (never completed)
- closed mine sites – multiple facilities/in-situ (approval issued/ under IR)
- former smelter site – secure landfill/in-situ (approval issued & CoC)
- existing smelter site – secure landfill/in-situ (in development)
- wood preservation site – waste pile/in-situ (approval issued & CoC)



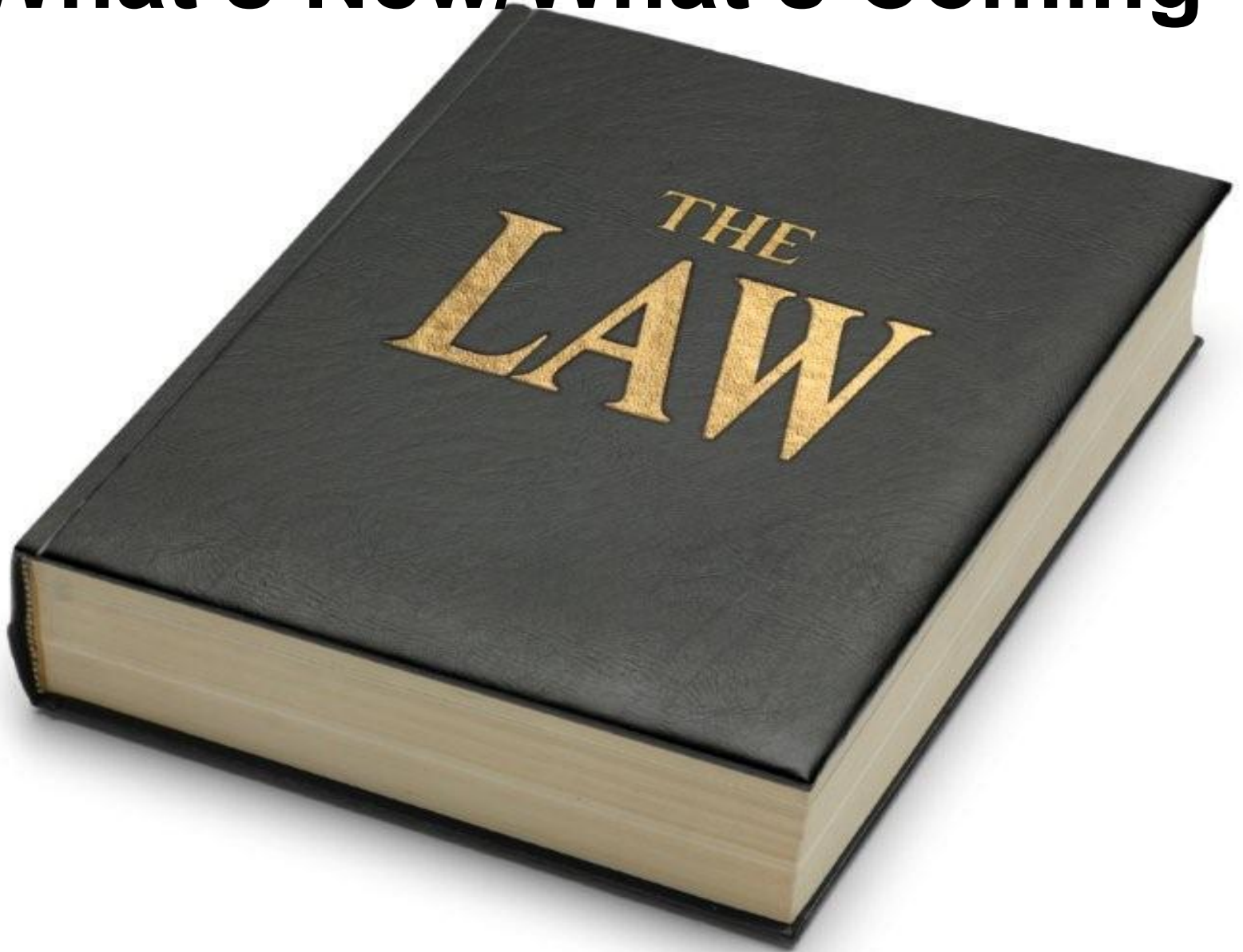
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Off-Site Management Issues BC Generator Registration and Manifests

- Reconciliation of estimated quantity of haz waste between registration document and manifests?
- Are “in-situ” hazardous waste level soils and/or groundwater “hazardous waste”?
 - Is registration required?

What's New/What's Coming





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Overview of Changes to the HW Reg

- 1. Revising the HWR structure and organization**
- 2. Adding new types of hazardous waste and revising current definition**
- 3. Relying on Qualified Professionals**
- 4. Encouraging recycling of stewarded wastes while ensuring proper management**



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Resolving Regulatory & Management Issues related to Overlaps between the HWR & the CSR

- **Objective:**
 - remove overlaps and inconsistencies
- **Proposed regulatory approach:**
 - On-site remediation activities: CSR
 - Off-site management of HWs: HWR



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Current Status & Next Steps

Current Status of Drafting

- Currently drafting a reduced scope consolidated version of the regulation

Next Steps

- Continue drafting consolidated versions of the new regulation;
- Target completion date: January 31, 2014
- Continue development of training materials and related guidance documents

Questions?





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THANK YOU!

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