



Nebraska
DEQ

Investigation Derived & Remediation Waste

Nebraska Department of
Environmental Quality

Waste Management Section

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RCRA Compliance Assistance



Discussion

- Environmental Media
- Investigation Derived Waste (IDW)
- Remediation Waste
- IDW Management
- Remediation Waste Management
- Questions

Environmental Media

- Environmental media – naturally occurring material indigenous to the environment
 - Ground & surface water, soil, rocks, gravel
- Contaminated media not solid waste in-situ
 - Contained In Policy - Mixtures of environmental media and listed hazardous waste must be managed as if they were hazardous waste
 - Contaminated media could exhibit hazardous waste characteristic(s)

Environmental Media

- Contained-In
 - Listed media remains listed HW until NDEQ/EPA determines the media no longer contains the listed HW
 - Characteristic media contains HW as long as the media exhibits a characteristic

Environmental Media

- Media containing HW subject to all applicable RCRA requirements until the media no longer contains HW
- RCRA regulations apply to other wastes associated with contaminated media
- Investigation derived waste can, and usually does, include environmental media

Investigation Derived Waste

- A subset of waste generated in the process of investigating or cleaning a contaminated site
 - Site assessments, remedial investigations, feasibility studies
 - Drilling mud, cuttings, purge water, contaminated PPE, solutions from decontaminating equipment, media from sample collection, etc.

Remediation Waste

- Essentially all media, debris, and other materials being “actively managed”
- Clean-ups involving removal of contaminated media, debris, and other materials from a site is “active management”
 - Removing, excavating, mixing with other wastes, other on-site treatment (ex-situ)

IDW Management

- Principle of “active management” applied to IDW:
 - Media displacement due to
 - Activities related to investigation* or remediation are considered active management under the waste regulations
- Activity not related to investigation* or remediation is not considered “active management” under the waste regulations

* Investigation incident to remediation is “active management”
Geotechnical studies unrelated to remediation is **not** “active management”

IDW Management

- “Active management” generated wastes include potentially contaminated media or associated IDW
- IDW management:
 - Waste determination required
 - Manage IDW as hazardous waste until proven otherwise
 - Containerize appropriately
 - Minimize potential wastes
 - Discourage test pits and trenches

IDW Management

- *Hazardous* IDW placed on the ground constitutes a solid waste management unit
 - IDW found to be hazardous waste that was placed on the ground is subject to RCRA permitting, closure requirements, or corrective action
 - “Area of Contamination” policy can change the above
- Hazardous IDW subject to RCRA regulations from the point of generation
 - Point where/when the IDW media was excavated
 - Point where/when IDW equipment disposed

IDW Management

- Hazardous IDW disposal
 - CESQG only -- to permitted municipal solid waste landfill with prior approval
 - CERCLA Off-Site Rule might apply
 - To POTW
 - If sanitary sewer on-site and with prior approval
 - Cannot be transported to a NE POTW or off-site sanitary sewer
 - Meet accumulation time limits
 - Transport to a permitted TSDF

IDW Management

- Non-hazardous IDW options
 - Keep media on-site if:
 - Uncontaminated
 - If contaminated
 - Meets appropriate NDEQ VCP Remediation Goal Lookup Tables
 - Return solid media to ground at/near generation point
 - Return water media to ground at/near generation point if it meets ground water standards in Title 118
 - Beneficial fill elsewhere on-site only if meets Title 132, Chapter 2 fill use criteria
 - Site specifics must be considered
 - Non-media IDW must be disposed off-site

IDW Management

– Non-hazardous IDW options (Cont)

- Dispose off-site

- Permitted landfill

- Waste

- CERCLA Off-site Rule might apply

- Alternate daily cover

- Fill

- Only if meets Title 132, Chapter 2 criteria

- POTW with prior approval

IDW Management

- Activity not related to investigation or remediation
 - Not considered “active management” under the waste regulations
 - Routine construction such as displacing soil to lay underground cable or dig a foundation
 - Replace the displaced media, but other wastes to be properly disposed
 - Construction related to a remediation project is considered “active management”
 - Laying underground cable to a stripping tower

IDW Management

- Pre-characterized sites
 - If a site can be adequately pre-characterized as not contaminated, then IDW from this site does not require any other IDW special handling
 - Examples:
 - Cuttings/water from a well or piezometer located a significant distance from known contamination to characterize hydrologic or gradient conditions
 - Cuttings from an uncontaminated and unsaturated zone above suspected ground water contamination
 - However, if subsequent investigation proves pre-characterization wrong ----- !!

Remediation Waste Management

- Media, debris, and other waste generated as part of a remediation project is remediation waste.
 - Also includes the above materials generated during site preparation for remediation
- Waste determination required
- RCRA regulations apply to hazardous wastes

Remediation Waste Management

- Consider all your options to include
 - In-situ treatment
 - Alternative contaminated soil treatment standards
 - Alternative treatment standards for hazardous debris
 - Debris treated by extraction or destruction technology is no longer considered to contain hazardous waste and no longer subject to RCRA
 - The above automatic contained-out determination does not apply to immobilization technology

Remediation Waste Management

- Title 132 Integrated Waste regulations apply to non-hazardous waste
 - Fill use vs. disposal (Title 132, Chapter 2, 002.01)
 - Fill for erosion control, repair, channel stabilization, landscaping, roadbed prep, or other land improvement
 - Not mixed with other solid wastes,
 - Do not have the potential to cause contamination threatening to human health or environment.
 - If it looks like disposal it probably is
- Remediation waste issues are site specific
 - Apply regulations and general guidance
 - Add good judgment
 - Ask questions **early**

Questions?

- Assistance
 - Jim Harford, CHMM
 - RCRA Compliance Assistance
 - A phone call away
 - (402) 471-8308/4210
 - *<http://www.deq.state.ne.us/>*

