



Current Use of RCRA Disposal Sites for Low Activity Radioactive Waste

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Low Activity Radioactive Waste Disposal at RCRA Facilities

- ◆ Radiological material regulated under Atomic Energy Act by NRC, its Agreement States or DOE for disposal purposes
 - ◆ AEA license (dual regulation) required, or
 - ◆ General or specific exemption allows alternate disposal (no dual regulation), or
 - ◆ Material approved for release by DOE
- ◆ Radiological material not regulated under the AEA for disposal purposes (e.g. diffuse NORM)
 - ◆ RCRA permit sufficient

RCRA Subtitle C Disposal Sites Accepting LAW *



* Subtitle D sites accept LAW in certain states

Grand View, Idaho RCRA Subtitle C Disposal Facility



RCRA – Part 61 Compatibility

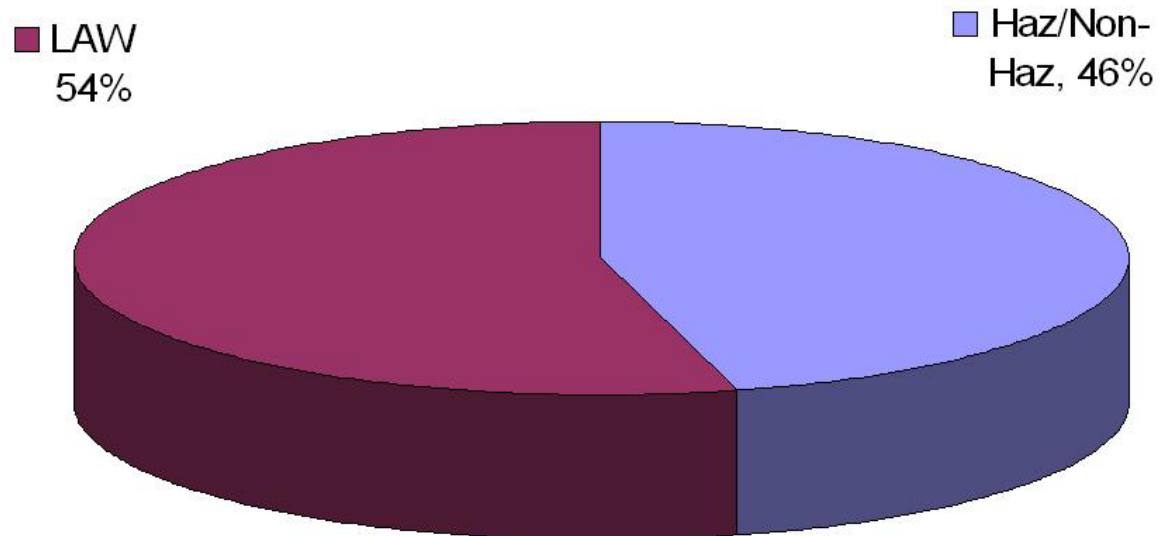
- ◆ Site characteristics consistent with 10 CFR Part 61
 - ◆ Low annual precipitation & high evaporation potential
 - ◆ Deep regional aquifer overlain by thick clay deposits
 - ◆ No up-gradient surface water flow onto site
 - ◆ Radon emanation is “bounding case” in performance assessment – addressed in disposal unit design
- ◆ Minimal leachate generation during operations – none expected post-closure
 - ◆ “Bath tub” effect does not apply

Idaho Approach to Radioactive Material Disposal at RCRA Sites

- ◆ State policy limits disposal of radioactive material to RCRA Subtitle C facilities (Subtitle D facilities prohibited)
- ◆ State rule defines allowable materials
- ◆ Facility RCRA permit conditions & requirements:
 - ◆ Permit modification process includes public review
 - ◆ Concentration-based, isotope specific acceptance criteria
 - ◆ Operating procedures
 - ◆ Personnel dosimetry & environmental monitoring
 - ◆ Cell design
 - ◆ Case-by-case review for specific exemptions based on performance assessment using updated source term

2000-2008 Grand View Disposal Summary

Percent by weight of waste in tons received





Typical LAW Disposed in Idaho

- ◆ Diffuse contaminated soil & demolition debris from federal government (e.g. FUSRAP & EPA Superfund sites) & industry remediation projects
- ◆ Production wastes from oil & gas industry and ore processing operations
- ◆ NARM & generally exempt items, products & devices
- ◆ Specifically exempted source, byproduct & special nuclear material



Conclusions



- ◆ Multiple RCRA Subtitle C sites routinely accept LAW
 - ◆ Subtitle D sites accept LAW in certain states
- ◆ NRC case-by-case alternate disposal authorization process is established & working
- ◆ No changes to Part 61 needed for RCRA sites operators to seek AEA license for LAW
 - ◆ Part 61 & RCRA regulations are not incompatible
- ◆ DOE jurisdiction over released material merits clarification