

ICP

IDAHO CLEANUP PROJECT

Mixed Waste Orphan Disposition

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February 29, 2012



CH2M-WG
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SAFELY PLAN • MOTIVATE • DELIVER

Past Successes – Reactor Vessels/Hot Cell



◆ Problem

- high activity requires specific packaging
- vessel size eliminated all commercial packaging
- high dose rates precluded size reduction
- loose contamination

◆ Solution

- Perform Engineering Evaluation/Cost Analysis under CERCLA for onsite disposal
- Develop Transport Plan to address transport of non-spec packaging
- Partial grouting to fix contamination
- Dispose and grout in place



Past Successes – Ion Exchange Resins



◆ Problem

- Sampling confirmed resins categorized as TRU waste
- Free liquids prohibited at WIPP
- Further sampling confirmed resins were hazardous waste under RCRA

◆ Solution

- Free liquids absorbed using commercial absorbent
- Resins stabilized to treat RCRA constituents
- Resultant treated waste confirmed to be MLLW
- Disposed as LDR compliant MLLW

Past Successes – HEPA filters



◆ Problem

- Time between filter changes resulted in generation of RH TRU filters
- Filters too large to fit in standard RH TRU packaging without time consuming, remote size reduction
- Filter leaching treatment unit unavailable due to higher priority RH TRU work

◆ Solution

- Dose-to-curie algorithm developed
- Characterization applied to entire bank of filters, rather than individual filters
- Waste containers created with combination of higher activity filters and lower activity filters
- Characterization of final package verified to be LLW using dose-to-curie algorithm
- LLW packages sent offsite for treatment/disposal

◆ Problem

- 600 – 700 canisters of treated sodium bearing waste (500 – 600 m³)
 - ◆ would meet definition of RH TRU, but complicated by tank waste determination criteria
 - ◆ treated tank waste that is specifically excluded from disposal at WIPP

◆ Potential Solution(s)

- Regulatory
- Statutory
- Additional future treatment to meet alternative disposal standards

