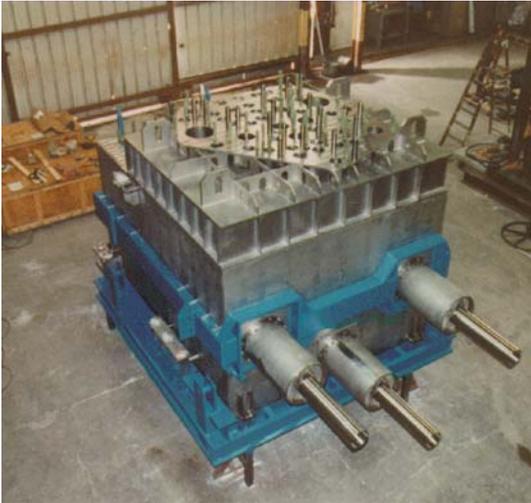




U.S. DEPARTMENT OF
ENERGY



West Valley Demonstration Project

*Waste Incidental to
Reprocessing Status*



**Daniel Sullivan, Federal Project Director
U.S. Department of Energy
West Valley Demonstration Project**



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Definitions

Waste Incidental to Reprocessing (WIR):

A process whereby certain waste streams associated with high-level waste (HLW) may be determined to be low-level waste (LLW)

Method I: Citation

This process used for contaminated job wastes such as clothing, tools, and equipment that can be readily shown not to be HLW

Method II: Evaluation

1. Technical Evaluation

- a) Technical analyses demonstrate that three criteria are met
- b) DOE consults with NRC, provides draft to public and states
- c) DOE finalizes evaluation considering NRC TER, other comments

2. Determination – made based on consideration of final evaluation and consultation with NRC



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Vitrification Melter

Unpackaged Melter

- 10' x 10' x 10'
- Inconel shell filled with refractory brick with stainless steel cooling jacket
- Flushed with chemicals and glass formers before shut down
 - Two evacuated canisters used to remove molten glass before shut down



Packaged Melter

- 14' x 13' x 13' carbon steel box (IP-2 container)
- ~159 tons packaged
- ~4,570 curies, primarily Cs-137
- Max contact dose rate 5 mR/hr on contact
- Stored on site with two other vitrification vessels



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Path Forward for the Melter

WIR determination was published in February 2012

(Available at: http://www.wv.doe.gov/Documents/Melter_WIR_Eval_FINAL_2-1-12.pdf)

Next Steps:

- Decide disposal location and confirm acceptability
- Finalize and obtain DOT exemption including route definition
- Complete grouting operations for Melter package
- Coordinate schedule for transportation to disposal site
- Ship and dispose



Transportation of the melter box - typical configuration for heavy components



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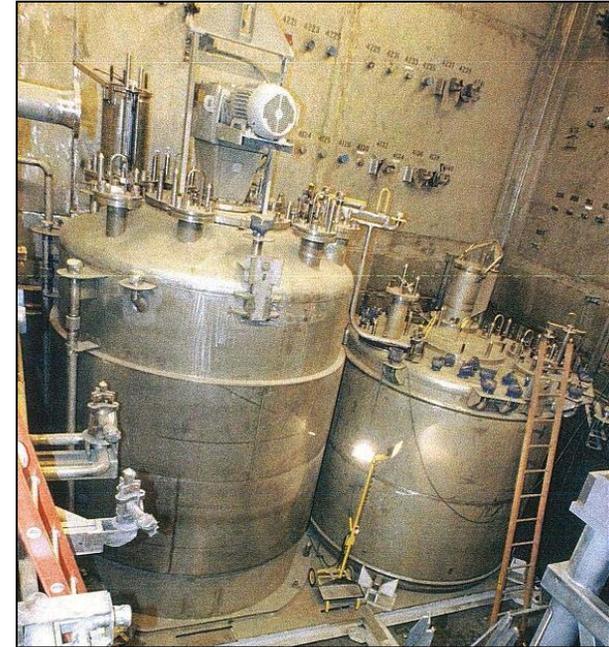
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Additional WIR Evaluations

Two additional vitrification system components require WIR evaluations

- Concentrator feed make-up tank (CFMT)
- Melter feed hold tank (MFHT)
- Each contains ~100 Ci, mostly Cs-137
- Each was put into custom shielded IP-2 container and grouted in place
- CFMT loaded box is 13 x 14 x 19 feet and package weighs 355,000 pounds
- MFHT loaded box is 13 x 14 x 16 feet and package weighs 305,000 pounds
- Both boxes were shrink wrapped and are stored at the railroad staging area next to the melter



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Path Forward for CFMT/MHFT

- Complete legal review of draft CFMT/MFHT WIR evaluation
- Issue draft CFMT/MFHT WIR evaluation for NRC and public review
- Resolve comments and issue final CFMT/MFHT determination
- If CFMT and MFHT determined to be LLW, *Then, ship Melter, CFMT, and MFHT in one rail shipment*



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