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*Safely Delivering DOE's Vision for the
East Tennessee Technology Park Mission*

The Disposition of Former “No Path To Disposal” Wastes - A 2015 Update

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Agenda

- Initial “No Path To Disposal” (NPTD) Waste Inventory
- Regulatory Framework
- Contractual Requirements
- Disposition Approach
- Current Status
- Remaining Challenges

NPTD Waste Inventory

Waste Category	Quantity		Reason for "No Path" Designation
	Volume (m ³)	# Containers	
Classified F027 Mixed LLW Debris	5.8	11	F027 Listing, Classified
Classified PCB LLW Debris	9.4	4	PCBs, Classified
Reactive Mixed LLW Returns	0.8	4	Reactivity Characteristic
Classified Mixed LLW Liquids/Debris/Soils	18.3	27	Classified MLLW
Mercury Mixed LLW Debris Returns	15.2	34	Mercury, Organics
Dioxin/Furan Mixed LLW Liquids and Debris	15.8	61	Underlying Hazardous Constituents (UHCs)

Regulatory Framework

- Two compliance agreements allowed continued storage of NPTD waste
 - Site Treatment Plan
 - PCB Federal Facility Compliance Agreement
- The agreements provide regulatory relief until disposal pathways can be identified
- The agreements include provisions requiring continuous progress

Contractual Requirements

- The East Tennessee Technology Park (ETTP) contract included:
 - Management and continued storage of the NPTD waste
 - Developing disposal paths of the NPTD waste
- The ETTP contract did not include:
 - Disposition of the NPTD waste

Disposition Approach

- Revisit historical waste characterization Information; thoroughly understand the waste
 - Process knowledge – circumstances and processes of generation and subsequent storage and handling
 - Available characterization data
 - Current condition of waste and waste container
- Review the regulatory framework – what's allowed and what's not allowed
- Revisit current available treatment technologies and disposal options
- Fill data gaps
- Reclassify and re-characterize

Current Status

Waste Category	Reason for "No Path" Designation	Path Identified	Disposition Complete?
Classified F027 Mixed LLW Debris	F027 Listing, Classified	NNSS	☑
Classified PCB LLW Debris	PCBs, Classified	NNSS	☑
Reactive Mixed LLW Returns	Reactivity Characteristic	M&EC, NNSS	☑
Classified Mixed LLW Liquids/Debris/Soils	Classified MLLW	M&EC, NNSS	☑ new from last year
Mercury Mixed LLW Debris Returns	Mercury, Organics	EnergySolutions	In process
Dioxin/Furan Mixed LLW Liquids and Debris	UHCs	Unknown	☒
New from last year - Sodium and Lithium Hydride shields	Reactivity Characteristic	EnergySolutions	In process

Remaining Challenges

- **Mercury and Organic Contaminated Waste**
 - Problem:
 - LLW containing mercury, organics and PCBs
 - Treatment technology available, however could not meet Underlying Hazardous Constituent concentrations as well
 - Solution:
 - Prepared Request for Proposal and released for bid
 - Allowed the marketplace to work for us
 - Competition motivated the development of treatment capability
 - Result:
 - Treatment source has been identified
 - Awaiting scope and funding authorization
 - Disposition planning is in process

Remaining Challenges (cont.)

- Dioxin & Furan Waste

- Problem:

- LLW includes both solid phase and liquid phase dioxin/furan F and U hazardous waste codes
 - Treatment technology exists to treat the primary waste, however the secondary liquids have no treatment/disposal path

- Solution:

- Storage – for now



K-1065 Waste Storage Facility

Remaining Challenges (cont.)

- Sodium and Lithium Shields

- Problem:

- Large, odd-shaped items containing bulk sodium metal or lithium hydride

- Solution:

- Prepared Request for Expression of Interest
 - Allowed the marketplace to work for us

- Result:

- Treatment source has been identified
 - Risk assessments underway and regulatory strategy being developed

