

## WM2017 Conference Panel Report

### PANEL SESSION 77: Dealing with Problematic US DOE Mixed Waste Streams and Policy Changes

**Co-Chairs:** Renee Echols, *President Firewater LLC*.  
Theresa Kliczewski, *USDOE EM-32*

**Panel Reporter:** Dick Blauvelt, *Portage Inc.*

#### Panelists:

1. **Scott Anderson**, *Deputy General Manager, CH2M Hill BWXT West Valley LLC*.
2. **Matt LaBarge**, *Vice President, Federal Business Development, WCS*
3. **Tammy Monday**, *Vice President, Sales and Marketing, Perma-Fix*
4. **Connie Simiele**, *Vice President, Waste and Fuels Management, CH2M PRC*
5. **John Wrapp**, *Waste Disposition Manager, URS/CH2M Oak Ridge LLC*

This panel convened again in a well-attended session at WM17 to discuss progress made resolving issues surrounding the disposition of DOE mixed low level waste (MLLW) and to examine remaining challenges in this once problematic waste category. In past years, the mixed waste community struggled with availability of appropriate treatment technologies to meet the LDR requirements and of permitted disposal facilities able to accept higher activity mixed waste. With these major issues addressed, some challenges remain with waste stream inventories with problematic disposition issues and potential impacts from regulatory and policy issue changes. This panel of generators and treatment, storage and disposal representatives addressed those remaining challenges. Approximately 50 attendees participated in this session

#### **Summary of Presentations**

**Theresa Kliczewski** led off the panel discussions with some comments from DOE EM in Headquarters. She noted that the EM Office of Waste & Materials Management remains the “Champion” for waste disposal and treatment in which they continue to provide EM sites with support and guidance as necessary. Her organization also continues to oversee various policy issues related to LLW disposal including LFRG and obtaining a disposal capability for GTCC LLW and GTCC-like waste. In addition, they continue to understand the importance of EFCOG and will continue to work with EFCOG, and in particular the waste management committee, on LLW and MLLW management topics. **Theresa** also commented that recently, they have enlisted EFCOG’s assistance with performing an assessment of DOE’s LLW/MLLW management activities to identify potential issues and opportunities for integration. For example: Identification of the LLW/MLLW program’s vulnerabilities and barriers (e.g., problem streams...etc.); Ability to maintain compliance with current regulatory requirements (including DOE Order 435.1)

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**Scott Anderson** discussed the most recent high priority project associated with the next phase of the West Valley Demonstration Project, the site of a commercial reprocessing facility that operated from 1966 until 1972. This project involved disposal of the vitrification melter and associated equipment. Challenges included the packaging of these large components. The melter package was 14ft.x13ft.x13ft and weighed 160 tons and the other two components were equally large. In addition there were regulatory hurdles associated with transporting these packages by road and rail from the West Valley Site to the west Texas WCS disposal cell. Successful emplacement occurred in December of 2016

**Matt LaBarge** discussed the development of the Large Component Disposal Facility at WCS and its application to the receipt of West Valley Melter, highlighting the unique aspects of this placement. He also addressed other challenging DOE waste streams accepted by WCS such as the LANL nitrate salts. **Matt** provided a clear picture of the current capabilities and planned enhancements of the WCS complex that serves both the federal and commercial market.

**Tammy Monday** gave a comprehensive description of the capabilities of Perma-Fix involving both characterization and a variety of treatment options for low level, mixed low level, TRU and hazardous waste at four separate physical facilities. A primary focus of her presentation dealt with the closure of the Permafix M&EC complex located in the East Tennessee Technology Park. The lease of the property from the DOE will expire in January of 2018. Assurance was provided to current clients that their contracts with Perma-Fix will be fulfilled.

**Connie Siemele** reviewed the history regarding the disposition of MLLW at Hanford with a starting 1999 inventory of 9200M3. By utilizing commercial treatment and transportation and an onsite disposal facility, the volumes were significantly reduced. The remaining legacy MLLW includes about 100 MLLW packages of RH hot cell debris, containers that are too large, have high H3 or high dose, and retrieved drums containing unknown liquids. Hanford also has a significant challenge regarding the size reduction and repackaging of approximately 11K M3 of TRU mixed waste in a variety of packages including 800 containers of RH TRU waste. The path forward on this issue may be complicated by other projects on the Hanford Reservation such as dealing with the underground tank waste and construction of the waste treatment plant.

**John Wrapp** provided the latest update on the Oak Ridge “no path to disposal” (NPTD) mixed low level waste. With a starting list of six complex NPTD wastes, the site has utilized historical process knowledge, characterization data, regulatory strategies, treatment technologies and the competitive marketplace to successfully address five. Significant progress has been made with dioxin and furan waste and the added NPTD sodium and lithium shields, some large. Additional problems have surfaced with mercury contaminated soil and debris along with high activity waste. Shutdown of the Perma-Fix M&EC Facility removes a path forward for the high activity waste. There is a concern that commercial treatment options for some problematic wastes could die away for lack of business.