

## WM2012 Conference Panel Report

### **PANEL SESSION 68: The Mixed Waste Orphan Streams of 2012 and Beyond Need a Treatment Technology or a Pile of Money (or Both)**

**Co-Chairs:** Dick Blauvelt, *Portage Inc.*  
Christine Gelles, *US DOE*

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

#### **Panelists:**

1. Jhon Carilli, *US DOE NSO*
2. Ken Grumski, *Waste Control Specialists*
3. Steve Clemmons, *LANL*
4. Pete Sauer *CH2M-HILL B&W West Valley*
5. Scott Anderson, *CH2M-WG Idaho*
6. Danny Nichols, *Fluor B&W Portsmouth*
7. Renee Echols, *Perma-Fix*
8. Johnny Bowne, *EnergySolutions*

This panel was reassembled again for WM2012 to discuss progress made to resolve issues surrounding the disposition of DOE high activity mixed waste. In past years, the mixed waste community has struggled with the availability of appropriate treatment technologies to meet the Land Disposal Requirements (LDR), the availability of permitted disposal facilities and the necessary funding to identify, characterize, treat and dispose of the DOE mixed waste inventory. Treatment vendors like Perma-Fix and EnergySolutions have tackled treatment technology issues, the NNSA site in Nevada has developed a fully permitted disposal facility, WCS will be opening a second disposal site in the near future and ARRA funding has provided the necessary resources to address much of the waste from the major generator sites. While these issues have been resolved, challenges remain and this year's panel members discussed those issues and looked ahead to the focus for mixed waste disposition at WM2013. DOE/EM HQ, reviewed and discussed the remaining issues and challenges represented by this disposition activity.

**Jhon Carilli** discussed the successful mixed waste disposal program at the NNSA Site. They have been able to accept all mixed waste streams shipped there to date. He noted that seemingly small violations of the site waste acceptance criteria is a major problem and can result in significant impacts to the generator site and others.

**Ken Grumski** of Waste Control Specialists (WCS) discussed the significant progress made during the past year in the construction and preparation for operation of both the TX Compact Disposal facility, whose opening is eminent and the Federal Waste Disposal facility which is 99% complete and is expected to be ready for operation in the spring of this year. The second facility will provide an alternate disposal site for the DOE mixed waste inventory.

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**Steve Clemmons** previewed the LANL near term disposal efforts. While there are some problematic mixed waste streams such as high tritium or high technetium content waste, the primary issue is funding; with programs competing for limited dollars and rising unit costs for waste disposition. A primary objective from FY12-13 is the disposition of a significant quantity of TRU oversized containers, mostly FRP boxes. It is expected that some high activity mixed waste will be generated during this process.

**Pete Sauer** reviewed the unique position of West Valley. In addition to the stainless steel canisters containing vitrified HLW awaiting a home, West Valley has oversized and highly contaminated equipment from the vitrification process, Remote-handled (RH) waste that is not shippable and may be TRU and two drums that may contain SNF. In addition, the site does not have a defense determination so any TRU waste is currently a candidate for the GTCC repository. West Valley is packaging waste in accordance with DOE Order 435.1.

**Scott Anderson** reviewed some of the major accomplishments at Idaho National Laboratory including: solutions to problematic mixed waste streams including high activity, high dose rate, oversized equipment and oversized RH TRU waste. A difficult stream for disposition consists of 600-700 canisters of sodium bearing waste that is RH TRU waste but cannot be accepted at WIPP.

**Danny Nichols** representing the Portsmouth Gaseous Diffusion Plant D&D activity described the disposition of some atypical DOE radiologically contaminated mixed waste containing TCE and mercury. Another waste stream contains drums with excess quantities of fissile material that will be split for compliance. Onsite treatment is viewed as effective for several streams.

**Renee Echols** discussed the Perma-Fix successes in addressing issues related to LDR treatment of mixed waste including reactive metals, classified waste, and mercury and beryllium contaminated wastes. Dioxins and furans continue to be an issue. Several small volume commercial mixed waste streams are problematic.

**Johnny Bowne** reviewed the treatment capabilities of Energy Solutions with particular focus on PCB contaminated waste and those streams containing elemental mercury. It is anticipated that lack of treatment capability will not be an issue for mixed waste disposition in the days ahead.

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