

**PANEL SESSION 61 - Disposition of US DOE High Activity Mixed Waste
(and Orphans): Post 2010**

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

Reporter: Christine Gelles, *US DOE*

Panelists Included:

- Christine Gelles, *US DOE*
- Frank Disanza, *US DOE, Nevada Site Office*
- Bob Piper, *Bechtel BWXT Idaho, LLC*
- James Blankenhorn, *WVES*
- Kathy Johns-Hughes, *Los Alamos National Laboratory*
- Paul Larsen, *EnergySolutions*
- Mike Lauer, *Waste Control Specialists*
- Renee Echols, *Perma-Fix Environmental Services, Inc.*

An average of nearly 50 people was present throughout this panel session. Dick Blauvelt, one of the Co-Chairs, was unable to attend the symposium and panel. **Christine Gelles** chaired the session and opened the panel with some brief introductory comments regarding recent program and policy developments in the area of DOE's higher-activity MLLW. The sequence of speakers was ordered to provide updates from the disposal sites, followed by briefings from each of the DOE generator sites, and –finally – updates from the commercial treatment vendor. Questions were entertained following each speaker, and a common discussion was held following all presentations.

Christine Gelles presentation was brief, highlighting key developments in this topical area to provide a context for the panel presentations and discussion. She noted that the Recovery Act provided funding to support acceleration of solid waste disposition projects, and that Environmental Management has high level strategic goal to achieve disposition of 90% of its legacy transuranic waste inventory by 2015 – highlighting that a considerable percentage of stored TRU inventories will ultimately be determined not to be TRU, and would therefore be managed as higher activity MLLW. She stated adequate treatment technologies and capacity exist to support project plans, and that ensuring disposal capacity (Nevada National Security Site and Waste Control Specialists' planned Federal Waste Disposal Facility) of higher activity MLLW is critical to meeting project goals.

Frank Disanza provided an update on the development of the new RCRA permitted MLLW disposal cell at Nevada National Security Site (NNSS), and provided a five year forecast for MLLW disposal at NNSS. The new facility received full permit approval in mid 2010; construction was completed ahead of schedule. The site also obtained a RCRA storage permit, which was approved in November 2010, enabling continued receipt of offsite MLLW following the required closure of the previous MLLW cell on November 30, 2010. The new cell began operations in January 2011.

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Mike Lauer provided an update on the construction of the compact and federal disposal facilities at WCS. The compact facility is expected to be operational in late 2011, and the federal facility would be operational in spring 2012. He explained that WCS is currently working with commercial and potential federal generators to discuss disposal rates and plan for provisional disposal contracts. His presentation also included a status of the treatment capabilities available at the WCS facility.

Bob Piper provided a status update on the Advanced Mixed Waste Treatment Project at Idaho. He stated the development of the new MLLW cell at NNSC resolved the majority of the AMWTP issues related to higher activity MLLW. He commended Frank Disanza's and EM HQs' efforts to ensure continued disposal capacity for higher activity MLLW. Of the wastes remaining to be retrieved and treated at AMWTP, he estimated that approximately 60 percent would require management as transuranic waste, and as much as 40 percent would "fall out" as higher activity MLLW.

James Blankenhorn provided a status of the waste management projects at the West Valley Site, highlighting that all wastes must be removed from the site for treatment and/or disposal. He explained that the inventory of legacy transuranic waste is in the processing of being packaged for offsite disposal; however, because a defense determination has not been approved for the inventory, it is currently planned to be dispositioned pursuant to the ongoing GTCC LLW Disposal EIS. He also noted that of the LLW wastes to be generated through the cleanup of West Valley; approximately 10 percent require management as remote-handled wastes. Also, approximately 380 cubic meters of waste require classification as LLW through DOE's waste incidental to reprocessing framework.

Kathy Johns-Hughes provided a summary of the higher activity waste challenges at the Los Alamos National Laboratory. She explained that although LANL's MLLW inventory is a low volume, it contains very high curie content. For example, 4 cubic meters alone contain over 200,000 curies of tritium. She also noted that LANL's transuranic waste management projects will likely yield an additional 2,000 cubic meters of MLLW, once fully characterized.

Renee Echols summarized several of the DOE radioactive waste challenges that Perma-fix facilities successfully addressed in 2010, including transuranic waste repackaging, higher activity MLLW treatment, PCB treatment and special waste projects. She highlighted projects where high-tritium wastes had been successfully treated.

Paul Larsen presented a summary of EnergySolutions' treatment capabilities, focusing on their respective capacities and the degree to which they are fully utilized. His presentation, entitled "Boom or Bust: Perspectives on Treatment Capacity" concluded that treatment/disposal volumes appear to be declining and that treatment capacity does not appear to be an issue. This is in marked contrast to the concern of the previous year panel discussions that insufficient treatment capacity would be available to address the volumes of wastes generated by DOE's investment of recovery act funding to disposition legacy wastes.

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Public Comment and/or Questions

There were a few clarifying questions asked during the presentations. No substantive issues were raised during question period. The panel discussed that at least an additional panel discussion on this topic would be worthwhile in 2012, to update any changes in the disposal decisions or actions necessary to further optimize DOE's projects related to higher activity MLLW.

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