

WM2013 Conference Panel Report

PANEL SESSION 40: Nuclear Power Plant Waste Management – LLW Disposal Issues

Co-Chairs: Mark Lewis, *EnergySolutions*
Clint Miller, *Pacific Gas & Electric*

Panel Reporter: Clint Miller

Panelists:

1. **James Kennedy**, *US Nuclear Regulatory Commission*
2. **Dan Burns**, *Waste Control Specialists*
3. **Dan Shrum**, *EnergySolutions*
4. **Michael Benjamin**, *EnergySolutions*

About 30 people attended this panel session which focused on the current status of commercial LLRW disposal sites in the USA. The session opened with Mr Kennedy providing a review of NRC work on LLRW disposal. The other three panelists presented an up date on their disposal site. This was followed by a question and answer session which included questions on waste attribution at the sites and transfer of disposal data to US DOE and into the Manifest Information Management System.

Summary of Presentations

James Kennedy explained that NRC has been working on 10 CFR 61 issues and the Branch Technical Position (BTP) on Concentration Averaging and Encapsulation (CA&E) for several years. An NRC Public meeting on Manifesting lower limits of detection (LLDs) will be held the Friday after WM2013. In 2009, NRC Staff recommended that Performance Assessments (PA) and Intruder Assessments be incorporated into Part 61. Disposal of Depleted Uranium in shallow burial and the advent of large scale waste blending arose as issues and NRC Staff recommended they could be addressed together in rulemaking on Part 61. The Commission was interested in use of the latest ICRP nuclide specific dose information and enabling disposal sites to use a site specific PA as an option to the Classification Tables for a generic disposal site. Many comments were submitted from stake holders including the ACRS. NRC hopes to issue a proposed rule in 2013.

The NRC has received a lot of input on the proposed revision to the BTP on CA & E. Mr. Kennedy thanked every one for providing comments. The revision is expected to be issued late summer 2013.

The NRC is considering revisions to NUREG BR-0402 on completion of the LLW Uniform Manifest and reporting certain nuclides as LLDs.

Dan Burns summarized the opening and initial operation of the disposal site in Texas. Just over 100 cask shipments have been made to the Texas site. The first shipment was one drum in April 2012. The Texas Compact approved the first importation application in June 2012. The focus has been on unloading shipping casks safely and efficiently. Radwaste casks are routinely received and released in 3 hours avoiding any demurrage fees to clients. The TN Ram cask for very high activity activated metal is being turned around in 1.5 days. The Waste Control

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Specialist (WCS) compact facility cell is cement lined and about 100 feet deep. Class B/C waste is placed in a concrete container in the cell. The State of Texas takes title to the waste upon receipt at the site. WCS is now offering conditioning services at the adjacent treatment facility to deal with free liquids and void space issues. WCS also expects to have 3 new Type B shipping casks in February 2014.

Dan Shrum provided an overview of operations at the Clive, Utah disposal site. The site has remaining space for 25 to 30 years of operation. Bulk, containerized and mixed waste disposal facilities exist at Clive. A rail car roll over and washing station, large shredder and mixed waste treatment services are provided. A 1 year variance for disposal of domestic Class A sources registered by the CRCPD-SCATR program has been obtained. Up to 40,000 ft³ of blended resin to meet Class A limits has been approved. A new PA for blended waste has been submitted to the State of Utah. A moratorium on DU disposal was put in place June 2010. A PA on DU was submitted June 2011. The State Regulator projects a third party review will take about 1 year.

Mike Benjamin presented some background on the Barnwell, SC disposal site. The site has provided 43 years of un-interrupted service. The site employs concrete overpacks in the disposal trench 3 wide by 2 high. The site typically gets cask shipments but can take large components and DAW packages. Serving only three states, the large variation in monthly receipts is a challenge for staffing (currently 34). An overview of the optional rate schedules was provided. Approval from the regulator later this year in closing several monitoring wells (that have become input sources) will eliminate the need for water treatment at the site.

Questions and Answers

Billy Cox of the Electric Power Research Institute asked about waste attribution at the disposal sites from manifested data and other shipping documents and transfer of that information to the national Manifest Information System (MIMS) overseen by DOE. Since thermally processed waste is manifested by two processors as processor waste, how is the State of waste origin tracked?

For Barnwell disposal site, each waste generator must obtain a State of South Carolina transport Permit. This Permit number is required to be listed on the manifest (542 Form) and the original waste generator noted.

The new site in Texas has not transmitted any disposal data to DOE-MIMS. The State Regulator, TCEQ, is requiring processors who list thermal residue as processor waste and send no 542 manifest Form, but to submit a detailed attribution report listing the original waste generators and the volume and activity of their portion of the waste. The Texas Compact has not required an attribution report to date, however, the information they require to verify import and Export Permits are aligned is best satisfied by an attribution report. The WCS intent is to submit waste attribution on the origin of the waste to DOE MIMS whether that data is submitted on a 542 or an attribution report.

At the Clive waste generators do not need to get a State of Utah Permit if their waste is packaged and sent to the site by a waste processor. If the processor sends a 542 Form (lists waste generator origin) to Clive, that data is transferred to DOE-MIMS. State of Utah now requires a listing of

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waste origin and the Northwest Compact wants waste origin documented to verify no foreign waste is sent to Clive and that no waste from the Northwest Compact goes to Clive (must go to the US Ecology Richland Washington site). Clive does not require a 542 form for thermal residue, an attribution report is acceptable. Clive only sends manifested information to DOE – MIMS so waste origin from an attribution report for thermally treated waste is not being submitted to DOE-MIMS.

Mark Lewis asked the audience "How many people in this room use MIMS?" About half the crowd raised their hands which was a surprise to both of the sessions Co-chairs.

Tom Magette, of Price Waterhouse Coopers and an audience attendee, stated this is not a safety issue and believes a simple solution would be to utilize existing forums for all parties to agree on what is important, what data are to be collected and how it is to be reported.