

WM2012 Conference Panel Reports

PANEL SESSION 52: Nuclear Power Plant Waste Management - LLW Disposal Issues

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

Panel Reporter: Clint Miller, *Pacific Gas & Electric*

Panelists:

1. Sean McCandless, *Director of Compliance and Permitting, EnergySolutions*
2. Daniel Burns, *Vice President Planning and Business Development, Waste Control Specialists*
3. James Harris, *Vice President, Barnwell Operations, Energy Solutions*
4. Lisa Edwards, *Electric Power Research Institute (EPRI)*

More than 45 people attended this session that provided an overview of three commercial disposal sites in the USA and EPRI's projects in this area. Each of the 4 panelists gave a 20 minute overview.

Sean McCandless kicked the session off with an overview of the Clive, Utah disposal facility. Slides of the huge steam generators from San Onofre Nuclear Generating Station (SONG) on the road and in the disposal cell were shown. Two of the four SONG steam generators were disposed of in 2011. A one year, one-time variance from the State of Utah has been requested to dispose of sealed sources [with half lives less than 30 years] which fall under the NSSA Global Threat Reduction Program. Approval of 40,000 ft³/yr of blended waste was recently granted by the state regulator for Clive. This volume limit cannot be exceeded until the site Performance Assessment is updated.

Dan Burns gave an overview of the Status of the WCS site in Texas. In 2011, construction of the Compact Facility, a submittal to the State Regulator to open the site and financial assurance were complete. Three license amendments need to be approved to open the site to Compact generators. Those might be granted in March 2012. WCS is placing concrete canisters in the Compact facility and conducting dry runs on procedures with non-radioactive waste containers at this time. A revised Performance Assessment has been submitted to the state regulator.

Disposal rates for this site are subject to state regulatory review. Interim rates were issued last fall (these are Maximum rates for in compact and minimums for out of Compact). A hearing will be held to determine final in-compact rates.

Draft Importation rules were issued by the Texas Compact Commission. Their next meeting is March 23, 2012. Construction of the Federal facility was completed mid February 2012.

James Harris also gave an overview of the Barnwell, SC disposal site. The Atlantic compact (13 reactors) is disposing of about 10,000 ft³/yr excluding large components. Hope Creek disposed of activate metals in 2011. About 80% of the site is being turned over for closure. Only 3 closure items are open but, these are expected to close in

WM2012 Conference Panel Reports

2012. The effluent plume from the site has H-3 but, it is only 20% of the limit. Both C-14 and Tc-99 have been detected in the plume and are below limits

Lisa Edwards with limited Class B/C disposal access in the US recently, EPRI has projects for on-site storage and reduction in waste generation. The EPRI guidelines for on-site storage have been revised to include a justification for extending the frequency of container inspection base on actual experience and dependent on the type of waste and container. This has been submitted to the NRC for concurrence. EPRI has proposed extending the inspection frequency from quarterly to an initial inspection after 1 year then once every 10 years for Stable Solidified waste, once every 5 years for dewatered waste in HICs, once every year for dewatered waste in carbon steel containers and once every 2 years for DAW in metal containers. No forecast of when NRC can review this was available. B/C waste generations reduction trend graphs were shown. EPRI has issued an update to the Class B/C waste reduction Guidelines. EPRI has also completed research on a process to remove most of the activity from spent resin and collect it on a much smaller volume of media. This may not be needed near term in the US but, EPRI has international clients with no near term disposal options and the US situation maybe different 40 to 60 years from now.

###