

WM2017 Conference Panel Report

PANEL SESSION 60: Power Plant Waste Management – US LLW Disposal Issues

Co-Chairs: **Lisa Edwards**, *Electric Power Research Institute*
Clint Miller, *Pacific Gas & Electric*

Panel Reporter: **Clint Miller**, PG&E

Panelists:

1. **Michael Benjamin**, *Director, Barnwell Operations, Energy Solutions*
2. **Dan Burns**, *Sr VP, Planning & Business Development, Waste Control Specialists, LLC*
3. **Daniel Shrum**, *Sr VP, Regulatory Affairs, Energy Solutions*
4. **Joe Weismann**, *VP, Radiological Programs, US Ecology*

About 45 people attended this panel session which focused on the Commercial low level waste disposal sites in the USA. The session opened with four panelists presenting an up on their disposal facilities. This was followed by a question and answer session.

Summary of Presentations

Joe Weismann of US Ecology covered the oldest USA site in Richland, Wa which began operation in 1965. This serves the Northwest and Rocky Mountain Compacts. It accepts Class A, B and C waste and has disposed of the Trojan reactor vessel. The site currently receives about 20,000 to 27,000 ft³ per year. Class A waste containers are placed in the trench while Class B and C waste containers are grouted in concrete over packs. **Joe** also provided an overview of the US Ecology Idaho RCRA facility which has been accepting very low radioactive waste under NRC or DOE authorizations.

Michael Benjamin of Energy Solutions discussed the Barnwell, SC site which began operation in 1971. Barnwell accepts Class A, B and C wastes. Currently Barnwell serves the Atlantic compact. About 11,600 ft³/year is sent to Barnwell with about 50% Class A and 25% each for Class B and C respectively. Class B and C waste containers are placed in concrete over packs while Class A containers are placed directly in the trench. Large components and irradiated hard ware shipments have been disposed of at Barnwell.

Dan Shrum of Energy Solutions provided an overview of the Clive, Ut disposal site. Clive accepts Class A radioactive and mixed waste. Clive is not a compact facility and accepts waste from out of compact states and some exported compact waste. Currently about 70% of shipments to Clive are from commercial generators and 30% from DOE. Clive has a bulk waste disposal cell and a containerized waste cell. The 4 steam generators from Chrystal River have been disposed of at Clive. Clive did accept sealed sources under a special program for one year. A license request to accept sealed sources in the future is under review.

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Dan Burns of WCS Texas discussed the Andrews, Tx site which has been in operation for 5 years. The Compact facility cell serves the Texas-Vermont Compact and importation from out of compact states. Class A, B and C waste are accepted. Class Band C waste containers are grouted into concrete caissons and placed in the concrete lined cell. The steam generators from Point Beach have been disposed of in this cell. Sealed sources are accepted at this cell. WCS Texas also has a RCRA cell which is accepting low activity Texas exempt rad waste.

Questions and Answer

How many monitoring wells are at Barnwell versus Texas? Barnwell has about 120 monitoring wells and WCS Texas has about the same number.

Would manifesting Tc99 and I-129 at accurate levels versus high lab LLD values be helpful to the disposal sites? All site answered less. This would be very helpful to the US Ecology Richland, Wa site.