

**Session 09**  
**Panel: Hot Topics and Emerging Issues in Low-Level Radioactive Waste Management**

Panel Reporter: Kathryn Haynes, Southeast Compact Commission for LLRW (USA)

This panel session was organized and conducted by members of the Low-Level Radioactive Waste Forum, Inc. (LLW Forum), whose main purpose is information exchange and to assist states & compacts in fulfilling their obligations under the Low-Level Radioactive Waste Policy Act. Members include states, interstate compacts, federal agencies, disposal operators, brokers, processors, utilities and other waste generators, as well as associations.

The organization Executive Director, Todd Lovinger, moderated the panel. He explained that the LLW Forum organized the panel with the aim of bringing the audience up to date on current events and emerging issues in commercial low-level radioactive waste management in the United States.

The following individuals participated in the panel:

- Larry Goldstein, Chair, Northwest Interstate Compact, and Section Manager, Nuclear Waste Program, Washington State Department of Ecology, Olympia, WA
- Leonard Slosky, Executive Director, Rocky Mountain Compact, Denver, CO
- Christine Gelles, Acting Director of Disposal Operations, US DOE, Washington, D.C.
- Sean Bushart, Program Manager, Electric Power Research Institute, Palo Alto, CA
- Renee Echols, Senior Vice President of Sales and Marketing, Perma-Fix Environmental Services, Oak Ridge, TN
- Steve Creamer, President & CEO, EnergySolutions, Salt Lake City, UT

The panelists were asked to describe and explain the most critical current issues in their particular sector of the LLRW industry.

Larry Goldstein explained that residents of Washington State are especially sensitive to nuclear waste issues because of the Department of Energy Cold War legacy waste remaining at the site in Hanford, Washington. The majority know that the Hanford site is the largest contaminated site in the world, with 80 square miles contaminated above drinking water standards. Further, scientists are still far from understanding what is going on with contamination in groundwater.

In November 2004, an initiative was passed in the state to bar additional waste from coming to Hanford – that is now being litigated in the Court of Appeals.

Washington also hosts a site for commercial low-level radioactive waste. It is critical to Washington State that the Northwest Compact continues to have control over the flow of waste to that facility. To address the possibility that that control would be impacted if the Low-Level Waste Policy Amendments Act (LLWP Act) were to be modified or repealed, a termination clause was added to the sublease of the land for the disposal facility. Should the LLWP Act be revised, the state may terminate the

sublease. The site operator, US Ecology, is currently negotiating with the utility companies regarding a revised rate structure.

Leonard Slosky stated that there are three issues that the Rocky Mountain Compact Board (made up of member states CO, NV, NM), have been wrestling with in recent years. In 2006, the Board designated the Clean Harbors facility near Deer Trail, CO to receive NORM and TNORM up to 2000 pci/g. It is the first regional facility in the Rocky Mountain Compact region since the site closed in Beatty, NV. The facility will probably open to the nation. There are several legal challenges to the license pending in the State Court of Appeals.

Emerging as a controversial issue is the management of radioactive drinking water residuals. For the first time, uranium in drinking water is being regulated under the Safe Drinking Water Act, and 800 systems in the United States will have to do something to comply with the standards. The Rocky Mountain Board will not require that the waste be disposed at Clean Harbors; however, if the generator wishes to export, they will need to apply for an export permit.

The third issue regards the NEF gas centrifuge uranium enrichment facility, a \$1.5 billion facility that will be fully operational around 2013. NEF will be the largest waste generator in the compact region.

Christine Gelles described the national disposal strategies developed for LLRW and mixed waste at Department of Energy (DOE) sites over the last two years. If possible, waste is to be disposed on the site where it is generated. When disposal is not available on site, then waste is to be disposed at another DOE facility. Commercial disposal should only be used if it is compliant, cost-effective, and in the best interest of DOE.

DOE must strengthen its planning to ensure that progress continues to be made. Project costs are increasing, but budget resources are limited. The disposal landscape has changed, which brings market challenges – lower volumes mean higher cost.

Offsite LLW/MLLW shipments to Hanford remain suspended. Limited opportunity exists at the Nevada Test Site for high-activity MLLW disposal and limited operations are planned at the TSCA incinerator. Some wastes have no commercial pathway. Continued cleanup of DOE facilities is dependent on the availability of treatment and disposal. Problematic waste streams still exist.

DOE has developed a new web-based Waste Information Management System (WIMS), available at: <http://www.wims.arc.fiu.edu/WIMS/>.

Sean Bushart explained that the primary focus of the utilities is building new nuclear power plants. Thus, it is very important to the industry to have waste disposal capacity. They are very concerned about the future of the disposal facility in Barnwell, South Carolina. He explained a joint effort of the Electric Power Research Institute (EPRI) and the Nuclear Energy Institute (NEI) to review their waste options if the Barnwell facility ceases to be available after June 2008. Ninety percent of commercial power companies in the U.S. are dependent on Barnwell for Class B & C

disposal. All the utilities are well prepared to store waste if necessary, but that option is not optimal.

One option considered is development of new commercial sites. They determined that there is a 20-30 year gap in volumes before it would be economically attractive for a new commercial site to be developed.

EPRI also reviewed waste reduction practices and produced a “best practice” guidance document. The industry is reducing its waste volumes, producing a great cost savings. They are also looking at waste classification, considering whether the rules on blending may be too conservative. In the next year there may be some challenges to existing rules.

Renee Echols described the three facilities within Perma-Fix Environmental Services that conduct mixed waste treatment and announced that the company is in the process of acquiring a fourth facility, now PECOS, in Washington State. She explained that six years ago, the company began to develop techniques to manage Department of Energy and Department of Defense legacy waste. She emphasized that when looking at viable treatment options, one must first look at whether there will be disposal available after the treatment is conducted. One waste stream that remains problematic is PCB (polychlorinated biphenols) waste. The DSSI facility in Kingston, TN is in the process of getting a permit for PCB destruction. This is pending at the Environmental Protection Agency (EPA).

Steve Creamer – No Summary Provided

Todd Lovinger invited attendees to take written materials provided by the LLW Forum, including the Nov/Dec 2006 issue of the LLW Forum newsletter, a summary report and a newsflash on recently proposed legislation to keep the Barnwell, South Carolina facility open to out-of-region waste for an additional 15 years. He also invited attendees to attend the next meeting of the LLW Forum on March 19-20 in San Diego, CA, and its fall meeting in Oak Brook, IL on October 1-2.

The room for Session 09 was packed, so much so that a larger room should be considered for the session next year. Attendees remained there for the duration of the session and showed an active interest, participating in a lively question and answer session after the presentations by the panelists.