

REPORT

Idaho's waste agreement called into question

Idaho may have to accept changes to its landmark 1995 nuclear waste agreement with the federal government if the state wants to continue reaping the benefits of nuclear research. Such is the assessment of a preliminary report released on December 3 by Idaho's Leadership in Nuclear Energy (LINE) Commission.

Idaho Gov. C. L. "Butch" Otter established the LINE Commission in February 2012 to make recommendations on policies and actions the state can take to support the work of Idaho National Laboratory (INL), as well as the broader nuclear industry within the state. The commission noted that in 2010, "INL was responsible for over 24 000 direct and indirect jobs and over \$3.5 million in economic impact to Idaho."

The commission's report evaluates the role of INL in nuclear research in light of the 1995 agreement the state signed with the Department of Energy, under which the DOE agreed to remove all spent nuclear fuel from the state by 2035 and treat and dispose of (outside the state) all high-level and transuranic wastes from INL. Idaho is the only state in the United States with a legal mandate ordering the removal of federal nuclear waste from state land by a specific date.

The agreement also restricts the shipment of spent fuel into the state. Noting that INL, as the "nation's lead nuclear energy laboratory," requires quantities of used fuel for research activities, the commission report asks if Idaho is willing to consider changes to the settlement agreement to ensure continued access to such materials.

In addition, the report considers the benefits of establishing a pilot regional interim

A new report suggests that Idaho may need to revisit its 1995 nuclear waste settlement with the DOE if it is to have a nuclear future.

storage facility for spent fuel. According to the commission, "States that are willing to engage in establishing or expanding storage facilities for spent fuel and high-level waste would appear to hold a competitive advantage for receiving research funds directed at these 'back-end-of-the-fuel-cycle' activities."

Regardless of the state's willingness to keep spent fuel or host an interim storage facility, the commission noted that it is unlikely that a permanent repository will be available by the 2035 deadline, given the fate of Yucca Mountain, and that Idaho may want to reevaluate that deadline.

The Idaho environmental group Snake River Alliance, however, called the LINE Commission's recommendations for Idaho's nuclear future "premature."

"It is long on topics and short on the substance that will be needed to support the suggestion that Idahoans need to have a new conversation about allowing nuclear waste into our state," said Beatrice Brailsford, manager of the Snake River Alliance's nuclear program. "The alliance rejects the false premise that the INL's only future depends on more nuclear waste coming to Idaho."

The LINE Commission's draft report, *Progress Report: Subcommittee Recommendations*, can be found on the LINE Commission Web site at <www.line.idaho.gov>. The commission intends to submit its final report to Gov. Otter by January 31.

HANFORD SITE

DOE issues tank closure, waste management EIS

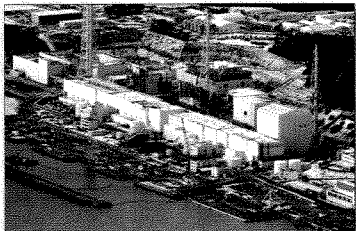
The Department of Energy on December 5 announced the issuance of its environmental review of plans to clean up radioactive waste left over from Cold War activities at the Hanford Site in southeastern Washington. The report, *Final Tank Closure and Waste Management Environmental Impact Statement Hanford Site, Richland, Washington* (TC & WM EIS), analyzes three areas of focus for remediation activities and the DOE's preferred methods for accomplishing its goals. The final EIS was prepared in cooperation with the Washington State Department of Ecology and the U.S. Environmental Protection Agency.

The three program areas include the retrieval, treatment, and disposal of waste from 177 underground storage tanks on the site, including 149 single-shell tanks; the final decontamination and decommissioning of the Fast Flux Test Facility and its support structures; and the disposal of low-level radioactive waste (LLW) and mixed low-level radioactive waste (MLLW) from Hanford and other DOE sites in an Integrated Disposal Facility.

The DOE's preferred alternative for the tank closures is to retrieve 99 percent of the tank waste but leave the tanks underground.

ANS Proceedings

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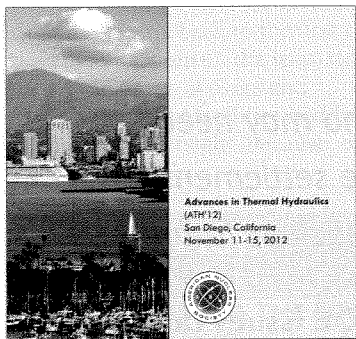


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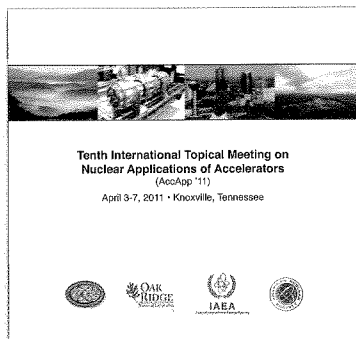


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According to the DOE, the risks of contamination exposure to workers and the volume of waste it would generate make the retrieval of the tanks "technically infeasible."

For the Fast Flux Test Facility, the DOE recommends entombment, which would involve removing all above-grade structures, including the reactor building, and filling all below-grade structures and piping with grout in order to immobilize any remaining radioactive and hazardous wastes.

As for the management of LLW and MLLW, the DOE prefers the disposal of on-site waste streams in a single Integrated Disposal Facility, while non-highly contaminated waste from the closure of the single-shell tanks, such as rubble, soil, and equipment, will be disposed of in the proposed River Protection Disposal Facility. The DOE said that it will not accept waste from outside Hanford until the site's Waste Treatment and Immobilization Plant (WTP) is operational.

The DOE does not offer a preferred alternative for the supplemental treatment of the low-activity waste (LAW) that would be separated from the tank waste by the WTP. In its foreword to the EIS, the Washington State Department of Ecology cites the failure to include a preferred method for treating LAW as an area on which the agency disagrees with the DOE. Ecology said that the EIS supports a second LAW vitrification alternative for handling the waste.

In the foreword, Ecology states, "DOE has invested 10 years and \$85 million, and Ecology has provided significant effort in cooperating agency review and consultation

in producing this TC & WM EIS. Ecology expects that investment should result in a final TC & WM EIS that supports making a supplemental treatment decision."

The DOE said that in preparing the final EIS, it considered all comments received on the draft EIS issued in October 2009. The DOE will issue an official decision on the EIS no sooner than 30 days after the EPA publishes its availability in the *Federal Register*. As of this writing, that notice has not been published.

The final EIS can be found online at <www.hanford.gov/index.cfm?page=1117&> or <www.energy.gov/nepa/office-nepa-policy-and-compliance>.

SAVANNAH RIVER SITE Saltstone facilities set waste-processing record

The Saltstone facilities at the Department of Energy's Savannah River Site, which are used to stabilize and dispose of low-level radioactive liquid salt wastes, processed 1.1 million gallons of decontaminated salt solution in September and October, setting a record for a two-month processing period, DOE contractor Savannah River Remediation (SRR) announced on November 20. According to SRR, the facilities also set a single-month production record by processing 664 129 gallons of salt solution in October.

The processing record follows a nine-month planned improvement outage that

Waste Management Briefs

CHANGES TO REGULATIONS FOR LLW DISPOSAL FACILITIES are being proposed by the Nuclear Regulatory Commission. The NRC is proposing to amend its regulations governing low-level radioactive waste facilities (10 CFR Part 61) "to require new and revised site-specific analyses and to permit the development of criteria for waste acceptance based on the results of these analyses." According to the NRC, the changes will ensure that wastes not considered in the technical basis for current regulations can be disposed of safely, and will also increase the use of site-specific information to ensure the protection of public health and safety. Notice of the LLW disposal rule changes was published in the *Federal Register* on December 7, and comments were accepted through January 7.

SHIPPING HUMBOLDT BAY WASTE TO IDAHO'S USEI FACILITY won't harm the environment and is the preferred option, according to an environmental assessment and finding of no significant impact issued by the Nuclear Regulatory Commission. Notice of the EA was published in the *Federal Register* on December 4. On May 2, 2012, Pacific Gas and Electric asked the NRC for approval to dispose of hazardous waste, soil, and debris at the US Ecology Idaho facility near Grand View, Idaho. The waste, which contains low-activity radioactive debris, is a result of PG&E's decommissioning and demolition of Unit 3 of its Humboldt Bay nuclear power plant in Eureka, Calif. As USEI is not licensed by the NRC, an exemption is needed to dispose of the waste at the facility. In its assessment of the request, the NRC said that disposing of the waste at the Idaho facility will cause no significant environmental impacts and is preferable to the only other alternative of "no action," under which only the location of disposal would change and all other factors would remain the same or would be similar.

ended in September (NN, Nov. 2012, p. 42). Nearly \$8 million in structural and design improvements were made to the facilities during the outage, according to SRR. This included the installation of new production equipment and process lines in the process room.

The Saltstone facilities, which consist of the Saltstone Production Facility and the Saltstone Disposal Facility, are functioning as expected, according to SRR. The new equipment and process lines improve the production facility's mixing and waste transfer system, which sends cement-like grout powders to a large mixer where they are combined with the low-level salt waste, the company said. The material is then sent to a small surge tank called a hopper, which as part of the improvements was redesigned to provide more efficient control and monitoring of the production process.

Prior to the improvements, the buildup and solidification of grout in the system would cause the facilities to be in an unplanned outage for four to six weeks, said Dave Olson, SRR president and project manager. The improvements are designed to eliminate this problem and make the system more reliable, he said.

"DOE's ultimate priority is to operationally close our tank farm system and reduce risk," said Terrel Spears, assistant manager for the Waste Disposition Project in the

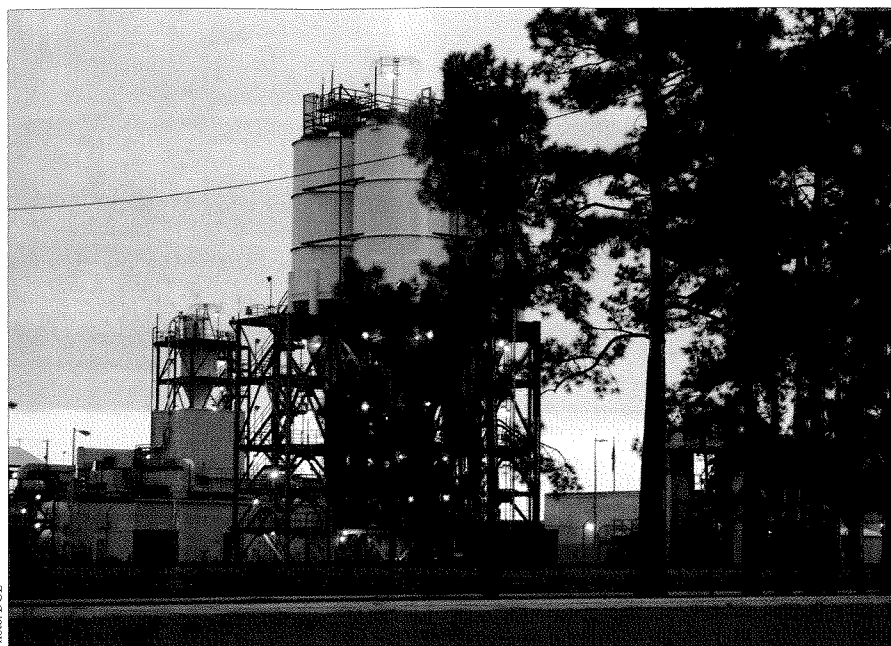


Photo: DOE

Structural and design improvements have allowed the Saltstone facilities at the DOE's Savannah River Site to process a record amount of waste.

DOE's Savannah River Operations Office. "The Saltstone operations are a critical component of DOE achieving that mission."

According to SRR, the refurbished facilities will operate continuously to process up to 12 million gallons of salt solution per year when the Salt Waste Processing Facility be-

gins operations, currently scheduled for July 2014.

SRR, a consortium of companies led by URS Corporation, with partners Bechtel National, CH2M Hill, and Babcock & Wilcox, manages the Savannah River Site's liquid-waste contract for the DOE. **NN**

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