

Administration Agrees to Nominate Sen. Reid's Scientific Adviser to the NRC

President Bush, in an effort to get his own nominee to the U.S. Nuclear Regulatory Commission, retired Adm. John Grossenbacher, through the confirmation process, has agreed to nominate Gregory Jaczko, scientific adviser to Sen. Harry Reid (D-Nev.), to the commission as well. Reid had threatened to block a vote on the Grossenbacher nomination unless his own candidate was named to the vacant Democratic seat on the commission, empty since Greta Dicus left in June. Grossenbacher would be taking over the Republican seat vacated by Chairman Richard Merserve earlier this year.

Some in the nuclear industry fear that Jaczko's close ties to Reid, an avid opponent of the Yucca Mountain high-level waste repository project, will affect his objectivity on the key question of the license for the repository. The U.S. Department of Energy is scheduled to submit the license application to the NRC in December 2004.

GAO Report: Spent Fuel Security Risk Low

The General Accounting Office, the investigative arm of the U.S. Congress, has concluded that the "likelihood of widespread harm from terrorist attacks or severe accidents involving spent fuel is low." In a report to Rep. Joe Barton (R-Texas), chairman of the House Subcommittee on Energy and Air Quality of the Committee on Energy and Commerce, the GAO cited many accident and sabotage studies conducted by the U.S. Department of Energy and the U.S. Nuclear Regulatory Commission.

Options may exist to further enhance security and safety, particularly in spent fuel transport. For example, the report said, the DOE could potentially minimize its total number of spent fuel shipments, ship the fuel in an order that reduces risk (for example, oldest fuel first), or transport the fuel on railroad trains dedicated exclusively to hauling spent fuel. Not all of these options may be feasible, however, under terms of the DOE's contracts with spent fuel owners, and some options for shipping in a particular order would conflict with one another, the report acknowledged.

The 50-page report, GAO-03-426, "Spent Nuclear Fuel: Options Exist to Further Enhance Security," is available at the GAO's website at www.gao.gov.

• Another study of spent fuel vulnerability, "Releasing the Hazards from Stored Spent Power-Reactor Fuel in the United States," written by Robert Alvarez et al. and published in the journal *Science & Global Security* in April, has been challenged by the NRC. In a letter to the journal, NRC Chairman Nils Diaz called the analysis "an

overly conservative evaluation of the safety of pool storage of spent power-reactor fuel." Diaz continued that the NRC found one proposal contained in the paper—placing all spent nuclear fuel into dry storage after five years of pool cooling—to be "not justified."

"The NRC staff has reviewed the paper and concluded that it suffers from significant flaws. We have identified four major areas where the authors have, based on their own analysis or referenced findings of earlier studies, introduced unrealistic conservatisms into their risk assessment and cost-benefit evaluation," the NRC analysis states. The four areas identified are as follows: probabilities of worst-case spent fuel pool damage were not justified; radiation release was overestimated; the consequences and societal costs for a severe event were overestimated; and the cost to move fuel from a spent fuel pool to dry storage were underestimated.

Project Updates

• The final concrete has been placed on the foundation for the Pretreatment Facility, the largest of the three nuclear facilities that will make up the Hanford Waste Treatment Plant at the U.S. Department of Energy's Hanford site. The Waste Treatment Plant is a \$5.7 billion complex being built to treat all of the high-level waste, and a sizable portion of the low-activity waste, now housed in Hanford's 177 aging underground tanks. It took six months to place the concrete for the Pretreatment Facility foundation, which is the size of four football fields (two wide by two long). When completed, the 119-foot-tall facility will contain 109 000 cubic yards of concrete. The project is being built by Bechtel National Inc.

• BNFL Inc. has completed the removal of all major equipment components of the six units located in the K-31 Building at the East Tennessee Technology Park in Oak Ridge, 106 days ahead of the company's schedule. Dismantlement is 90 percent complete for the entire building. According to the accelerated schedule for the project, BNFL Inc. will complete equipment removal and decontamination of Buildings K-29, -31, and -33 by August 2004.

• Workers at the DOE's Hanford Site have finished packaging more than 6000 pounds of plutonium residues (the largest of the three major categories of plutonium materials at the Plutonium Finishing Plant) for disposal, nine months ahead of schedule. The residues were packed into more than 1200 specially designed drums that are being shipped to the Waste Isolation Pilot Plant in New Mexico for permanent disposal. Residues are the second category of plutonium materials to be completed. The first category, plutonium solutions, were stabilized and packaged by July 2002. Stabilization of the third category, plutonium solids, including metals and oxide powder, will be completed by May 2004.

- The former Rocky Flats weapons complex is free of nuclear weapons usable material, Energy Secretary Spencer Abraham announced in mid-August, marking the departure of the final shipment of such material from the site. With the plutonium removed from the site, the project will save \$2 million per month in security costs, funds that can now be applied directly to demolition and cleanup work. The site is scheduled to be cleaned and closed in 2006. The cleanup is being managed by Kaiser-Hill.

- "Performance deficiencies" and failures to keep to schedule on the job of the K-Basin cleanup at Hanford has the DOE considering its options, including removing the contract from Fluor Hanford Inc. The DOE was fined \$76 900 in April by the U.S. Environmental Protection Agency for missing a December 31, 2002, deadline for starting up the project to remove highly radioactive sludge from the bottom of the aging leaky K-Basin spent fuel storage facilities at the shutdown K reactors, located along the Columbia River.

Fluor maintains there was agreement among all concerned parties to slide the sludge cleanup start date so that Fluor could tackle more urgent cleanup work, such as the plutonium residue stabilization (see p. 6). Fluor is on schedule in the larger project to remove the spent fuel from the basins.

In addition, Fluor has been struggling with the technology of safely putting the sludge into cylindrical containers. The water-logged sludge is heavily laced with uranium. The combination of flammable hydrogen and oxygen (from the water) and radioactive uranium in an enclosed space creates a danger of fire. Fluor has been experimenting with filling air spaces in the containers with argon to neutralize the danger. The company hoped to conduct an internal test run and evaluation of the argon system in October, aiming for a follow-up DOE-supervised test run in November. If those runs are successful, sludge removal could begin in December or early 2004.

Enrichment Facility Siting in New Mexico Depends on Waste Removal

Whether Louisiana Energy Services is able to build a uranium enrichment facility in Lea County, N.M., may depend on what will be done with the waste generated at the plant. LES has promised that nuclear residues from plant operations will not be disposed of in New Mexico. It has also agreed to post a bond to assure funding for decontamination of the enrichment plant and disposal of the residues if the company fails to fulfill its environmental commitments.

These promises were made in a letter to New Mexico

Gov. Bill Richardson (D), as LES formally announced that it was relocating its \$1.2 billion project from Hartsville, Tenn., to a site near the towns of Eunice and Hobbs, located near the Texas border in the southeastern part of the state. The company decided to move the project after running into public opposition in Tennessee, in part because of a lack of specific disposal plans for the depleted uranium residues. New Mexico Sen. Pete Domenici (R) reportedly played a major role in persuading LES to move to a New Mexico location.

International Briefs

- BNFL has begun a £13 million (\$21 million) project to remove thousands of meters of undersea pipes that once discharged liquid wastes from the Sellafield reprocessing plant into the Irish Sea. Three separate disposal pipelines are being removed, each about 2000 meters in length. A key concern will be preventing any radioactive material from reaching the beach during the operation.

- France has opened the world's first center dedicated to the disposal of very low-level waste, at Morvilliers, next to the Centre de Stockage de l'Auge (CSA) site for low- and medium-level radioactive waste. French safety officials do not allow waste with very low radioactivity content to be recycled generically into the general economy, so the lack of a dedicated disposal site was threatening operators with relicensing of nuclear installations for interim storage of this waste. Disposal of the waste at the CSA site was considered prohibitively expensive.

- Local violence against the planned low- and medium-level waste repository in South Korea is escalating. The Wido Island, Puan County, site in South Korea was selected as the nation's LLW/MLW repository this summer (see "Headlines," *Radwaste Solutions*, Sept./Oct. 2003, p. 8). The government has stated that it will not tolerate antinuclear violence and will not be deterred from going through with the project.

DOE Appeals Waste Reclassification Ruling

The U.S. Department of Energy is appealing a July ruling by a federal judge in Idaho that overturned a regulation that the department planned to use to reclassify some high-level waste residues so they could be disposed up at DOE sites (see "Headlines," *Radwaste Solutions*, Sept./Oct. 2003, p. 9). The Justice Department filed a notice August 26 with the U.S. District Court in Idaho, saying it was appealing the July 3 ruling to the 9th U.S. Circuit Court of Appeals in San Francisco.

The DOE is also looking at other means of achieving

the reclassification. In early August, Energy Secretary Spencer Abraham asked Congress for authority to reclassify high-level wastes as low-activity wastes if he believes the decreased risks would justify the change. Abraham asked Speaker of the House Dennis Hastert (R-Ill.) to add language to the Nuclear Waste Policy Act of 1982 to specifically grant the energy secretary the power, after consulting with the U.S. Nuclear Regulatory Commission, to reclassify high-level radioactive tank wastes.

For their part, the states of Oregon, Idaho, and South Carolina have asked the energy secretary to abandon the reclassification idea and to work directly with them to resolve the dispute.

Yucca Mountain Updates

- A federal court has scheduled oral arguments to begin on January 14, 2004, for the series of consolidated cases related to various aspects of the Yucca Mountain repository. In an order issued September 17, the U.S. Court of Appeals for the D.C. Circuit said that 13 combined cases would be

heard before a three-judge panel consisting of Judges Harry Edwards, Karen Henderson, and David Tatel.

- Nevada's state engineer, Hugh Ricci, will decide on the U.S. Department of Energy's water-permit applications for the proposed Yucca Mountain repository. Arguments were presented during two days of hearings in late August. Under terms of a court order, the state engineer can evaluate only whether the DOE's use of water would be detrimental to the public interest. At press time, Ricci had not indicated when he would issue the decision.

- Failure to appropriate the full budget request for the Yucca Mountain repository could "cause up to a year's delay in the scheduled December 2004 submission of the repository construction license application" and possibly defer critical national and Nevada transportation development activities, according to a statement released by the Bush administration in September. The administration was strongly objecting to the Senate Appropriations Committee's \$166 million reduction to its request for the Yucca Mountain repository. "We urge the Senate to restore funding to the requested level for this critical program," the statement continued. ■