

DOE: Disposal Contracts Available for New Nuclear Reactors

At the end of October, the U.S. Department of Energy announced that it is prepared to execute the Standard Contract for the Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste set forth in 10CFR961, together with a new reactor amendment, with those companies desiring to construct new nuclear power reactors. The DOE is making the standard contract and the new reactor amendment available to those companies that have notified the U.S. Nuclear Regulatory Commission of their intent to build new nuclear power reactors. Under the Nuclear Waste Policy Act of 1982, as amended, a company must have a contract with the DOE for disposal services to receive a license from the NRC to construct and operate a new nuclear power reactor.

“These contracts are essential to advancing the commercial nuclear renaissance which is needed in order to meet our nation’s significant future demands for providing electricity in a safe, secure, and environmentally friendly manner,” said Energy Secretary Samuel Bodman. “Making these contracts available to the developers of new reactors will support the expanded use of nuclear power in the United States, which is critical to meeting our country’s climate change and energy security goals.”

NRC Approves Dry Storage for Diablo Canyon Plant

In late October, the U.S. Nuclear Regulatory Commission, in a 3–1 vote, ruled that Pacific Gas and Electric’s plans to build a dry spent fuel storage facility at the Diablo Canyon nuclear power plant can go forward without further study of whether the facility is safe from terrorist attacks. In so voting, the commissioners denied the objection from the activist group San Luis Obispo Mothers for Peace, which had won a 2006 ruling in the 9th U.S. Circuit Court of Appeals forcing the NRC to consider its arguments. The dissenting vote was cast by Commissioner Gregory Jaczko.

Texas Governor Appoints Members to Low-Level Waste Compact Commission

In late November, Texas Gov. Rick Perry named Michael Ford chair and John White vice chair of the new Texas Low-Level Radioactive Waste Disposal Compact Commission, for terms to expire November 25, 2014. The governor also appointed additional members to the commission, which has been created to provide for the management and disposal of low-level radioactive waste, while maintaining the priority of the health, safety, and welfare

of citizens. Ford, a certified health physicist, is a program manager at B&W Pantex LLC; White is the radiation safety officer at the University of Texas Southwestern Medical Center at Dallas. The additional commission members are: Richard H. Dolgener, Andrews County Judge; Bob Gregory, president of Texas Disposal Systems; Kenneth L. Peddicord, director of the Texas Engineering Experiment Station and professor of nuclear engineering at Texas A&M University’s Dwight Look College of Engineering; and Robert C. Wilson, a partner at Jackson, Sjoberg, McCarthy & Wilson LLP.

One of the duties of the compact commission is to approve any out-of-compact low-level waste disposal at the Texas Compact’s waste disposal facility (when it begins operation).

- In related news, in early December, the executive director of the Texas Commission on Environmental Quality filed his response to public comments on the Waste Control Specialists LLC (WCS) draft license for the disposal of low-level radioactive waste. The executive director’s comments clarify the types of waste that can be accepted at the WCS facility as well as environmental monitoring requirements and operational issues regarding length of time for storage. The recommendations make it clear that the facility can accept for disposal all waste streams identified in the original license application, except certain depleted uranium (DU) waste streams over 10 nanocuries per gram and uranium hexafluoride (UF₆) from deconversion facilities. The U.S. Nuclear Regulatory Commission is expected to establish federal guidelines for the management of the DU and UF₆ waste streams in the future, and WCS may submit additional information in a future amendment to be in compliance with these new guidelines.

According to WCS, the response to comments is the latest development as the draft license moves closer to final approval. “WCS is grateful to the executive director and his staff for working through these technical issues,” stated WCS President Rodney A. Baltzer. “The intent behind the license conditions is now clearly spelled out.”

Once the license is finally approved, WCS will be able to operate a low-level waste disposal facility for waste generators in member states of the Texas Low-Level Radioactive Waste Compact. These states are Texas and Vermont.

D&D Updates

- Groundbreaking ceremonies for the construction of the Savannah River Site’s new Saltstone Facility took place in mid-November. The new disposal unit will provide additional disposal capacity to disposition the Site’s low-level radioactive salt waste. Some 36 million gallons of liquid nuclear waste, in the forms of salt and sludge, are stored in 49 underground carbon-steel tanks at SRS. The

Industry news ▼

CROM Corp. of Gainesville, Fla., has been awarded the \$8.8 million contract to build the facility, and it is expected to take 20 months to construct the unit, and another 4 months to complete testing and show readiness before it can be used.

- In late November, the state of Washington filed suit to force the U.S. Department of Energy to move faster to empty radioactive waste from underground tanks at the Hanford reservation. The state had been in talks with the DOE for 18 months to renegotiate legal deadlines for cleanup after it became clear that the DOE could not meet the cleanup deadlines in the Tri-Party Agreement; the two parties had reached an agreement in principle, but the agreement fell apart over legal language that the state believed would make revised deadlines enforceable in court. The lawsuit, filed in the Eastern Washington District Federal Court in Spokane and assigned to Judge Fred Van Sickle, asks the judge to set new deadlines for cleanup and to enforce them because the state and federal government failed to reach an agreement out of court.

- Additional sampling collection along the Columbia River near the U.S. Department of Energy's Hanford Site began in October, and will continue through September

2009. The approximately 1200 samples being collected of river water, soil on Hanford islands, sediment from the river, and fish will be used to test for possible contaminants that could have come from the past production of plutonium at Hanford. The results could lead to changes in cleanup plans and will be used to help make final cleanup decisions for Hanford land along the river, where cleanup is expected to be completed by 2015, although potential Congressional budget cuts could delay that date.

International Briefs

- Groundwater under most French nuclear sites is contaminated with radionuclides, primarily tritium, according to a report issued by the French Institute of Radiological Protection and Nuclear Safety in September. The report goes on to say that such contamination is often very localized (right under the sites), and that most of the contamination is at a very low level.

- Russia is planning to dismantle all of its decommissioned nuclear submarines by the beginning of 2012, and possibly by the end of 2010, according to Vladimir

Nikitin, general director of the Zvezdochka shipyard in Severodvinsk, in the northern part of Russia. He noted that more than 200 of the 250 nuclear submarines constructed in the former Soviet Union and Russia have been scrapped so far. Scrapping of the submarines from the Northern Fleet has been progressing faster than those from the Pacific Fleet. The Zvezdochka shipyard can dismantle up to four submarines a year, Nikitin said.

- Sellafield Ltd. has been able to free release six old shock absorbers from fuel transport flasks for recycling in the metals market, having proven them to be exempt from treatment as nuclear waste. The shock absorbers, stainless steel cylinders some 2 meters wide and 1 meter high, each weigh about 2.5 tonnes, of which about 2.25 tonnes is reclaimable metal. Sellafield Ltd. says that some 100 transport flasks will become redundant over the next ten years, and the steel in their shock absorbers could be worth as much as £900 000 (\$1.3 million) if it is sold in the metals market.

- In October, some 155 kilograms of high-enriched uranium (HEU) fuel from a Budapest research reactor was successfully transported to a storage facility in Russia under the U.S. National Nuclear Security Administration's

Global Threat Reduction Initiative. This was the fourth, and largest, shipment of HEU spent fuel to be removed to safe and secure storage over a year-long period. Other shipments dealt with fuel from the Czech Republic (80 kg), Latvia (14.4 kg), and Bulgaria (3.6). The project was carried out under the 2004 Russian-U.S. government agreement to remove Russian-made nuclear fuel from research reactors to Russia. The primary goal of the Russian Research Reactor Fuel Return program is to eliminate HEU stockpiles and persuade eligible countries to convert their research reactors from HEU to low-enriched uranium fuel.

- Dounreay's cementation plant, which solidifies highly radioactive liquid reprocessing wastes, resumed operations in October after a three-year recovery program following an internal spill. The plant takes liquid waste retrieved from 12 underground storage tanks, mixes that waste with caustic soda, and then set it in cement in 500-liter stainless steel drums. Nearly half of the 753 cubic meters of waste in the tanks has been solidified, and operations are scheduled to be completed in 2012. A second cementation facility is in the design stage, and construction is due to begin in 2011. ■