

Nevada appeals Yucca Mountain decision

On September 26, the state of Nevada petitioned the U.S. Court of Appeals for the District of Columbia for a rehearing of the writ of mandamus case ordering the Nuclear Regulatory Commission to resume its review of the Yucca Mountain repository license application (*RS*, Sept.-Oct. 2013, p. 6). This time, however, the state has asked that the case be heard *en banc*, with all 10 of the circuit court judges presiding. The prevailing case, *Aiken County, et al.*, was adjudicated by a three-judge panel, which issued its decision against the NRC on August 13.

In comments made to the NRC in response to an August 30 order requesting stakeholder input on how the agency should resume the licensing process, Nevada noted that if a rehearing by the court is granted and the writ of mandamus is overturned, restarting the license review will be unnecessary. The Nevada response states: “To avoid certain confusion and potentially unnecessary burden and expense, Nevada suggests the commission should postpone any decision regarding how the licensing process should be continued (and the licensing proceeding should remain fully suspended) until either rehearing is denied, or if rehearing is granted, until the case is reheard and decided.”

Nevada also told the NRC that if the license review were to continue, the agency should restart the adjudicatory process in tandem with its completion of the remaining volumes of the safety evaluation report (SER) for the Yucca Mountain repository. This would include reconstituting the Licensing Support Network (LSN), the electronic database of documents related to the Yucca Mountain license application, and reconvening the presiding Atomic Safety and Licensing Board to hear arguments in Las Vegas.

The NRC published the first of five planned volumes of the agency staff’s safety evaluation of the Department of Energy’s license application for Yucca Mountain in August 2010. According to a 2011 NRC Office of Inspector General report, NRC staff were close to completing Volume 3 of the SER when former NRC Chairman Gregory Jaczko canceled work on the report in 2010. In response to a Freedom of Information Act request from the Heritage Foundation, the NRC released drafts of SER Volumes 2 and 3 in February 2011. The released drafts were redacted, however, and the staff’s safety conclusions removed.

In an August 23 motion filed with both the NRC and the assigned ASLB, Nye County, a petitioner in the writ of mandamus case, argued against reopening the LSN and the Las Vegas hearing office, claiming that the expense of doing so is inappropriate considering the NRC’s limited

budget, and is an effort by opponents to “once again stop the licensing process by depleting the available funds.” Nye County also asked that the ASLB order the release of the remaining portions of the Yucca Mountain SER with the staff’s conclusions intact.

The NRC has stated that it has \$11.1 million in unobligated and \$2.5 million in obligated Nuclear Waste Fund money for the license review. In its own filed response to the commission, the NRC staff said, “This limited funding will not allow the commission to complete all of the steps necessary to make a licensing determination as to a construction authorization for the Yucca Mountain repository.”

Instead, the NRC staff, agreeing with Nye County, recommended that the safety and environmental review be uncoupled from the adjudicatory process, and that the agency first complete the remaining SER volumes (along with any supplements to the Yucca Mountain environmental impact statement), discrete activities that the staff said could be completed with the available funds. “Documenting staff findings before additional loss of key personnel would contribute to the development of a full record for the licensing proceeding, make information available to the public, and document staff’s regulatory conclusions on whether the [Department of Energy] application meets applicable requirements,” the NRC staff said. Barring any unforeseen issues, the remaining SER volumes could be completed in about a year, according to the staff.

This approach—to suspend legal hearings while the SER is completed—is also being recommended by the American Nuclear Society and the Nuclear Energy Institute. In addition, both organizations have recommended that the NRC seek the necessary federal appropriations to complete the entire licensing process. “The commission should not sit passively by and see if Congress will on its own provide the requisite funding,” NEI said in its filed response to the August 30 order.

Also, on September 27, a bipartisan group of 81 members of the U.S. House of Representatives sent a letter to NRC Chairman Allison Macfarlane asking that the NRC use the remaining funds it has available to complete the SER for the Yucca Mountain repository.



Macfarlane

In a separate motion to the NRC, Nye County requested that Macfarlane “recuse herself and be disqualified from any consideration related” to the Yucca Mountain license

application. According to Nye County, because of her criticisms of Yucca Mountain prior to becoming chairman, Macfarlane's ability to remain impartial in the proceeding is in doubt. In particular, Nye County noted that the 2006 book she coedited, *Uncertainty Underground: Yucca Mountain and the Nation's High-Level Nuclear Waste*, is critical of the repository.

Macfarlane, on September 9, denied the request to recuse herself, saying she will fairly and objectively consider the application. "Nye County's motion for recusal is premised upon the mistaken notion that I have somehow prejudged [the] DOE's license application. I can state without hesitation that I have not prejudged the technical, policy, or legal issues in this adjudicatory proceeding, and that my expertise will enhance the commission's deliberations and decision-making," she wrote in her decision.

■ On September 10, Macfarlane, along with Peter Lyons, assistant secretary for nuclear energy at the Department of Energy, testified before the House Energy and Commerce Committee's Subcommittee on Environment and the Economy about the NRC's plans to comply with the writ of mandamus order and the agency's schedule for releasing the remaining volumes of the SER.

In a prepared statement, Macfarlane reiterated the commission's intent to determine a "path forward" in the licensing review after it has received comments from the participants, along with the staff's budgeting recommendations. "Because the commission has not reached a decision on the path forward for the agency, it would be inappropriate for me to speculate about what the final direction will be," she said.

Rep. John Shimkus (R., Ill.), chairman of the subcommittee, expressed skepticism regarding the NRC's plans to resume the licensing process. In a prepared statement, he said, "Electricity consumers and taxpayers have waited 30 years and paid \$15 billion dollars to find out whether our independent nuclear safety regulator concluded that Yucca Mountain would be safe or not." Releasing the SER is the next step in the NRC's process, he said, and the



Shimkus

NRC has the money to do it. "A federal court has ruled that the NRC must proceed, and the NRC says 'Hold on, let's ask the parties what they think.' This does not seem like the posture of an agency intent on complying with a writ of mandamus. Instead, the NRC appears to again be stalling."

Echoing Shimkus's comments, Energy and Commerce Committee Chairman Fred Upton (R., Mich.) said that the

NRC's "first task" is to release the full SER. "Congress needs the opportunity to examine the NRC's long-overdue unredacted technical analysis, and the public who paid for it deserve to know the report's conclusions," he said.

The NRC has agreed to provide the committee with monthly updates on its progress in the Yucca Mountain review process. Likewise, in response to questions from the committee, Lyons said that the DOE will provide its own monthly reports.

Draft waste confidence EIS issued, meetings set

The 75-day public comment period for the Nuclear Regulatory Commission's new waste confidence rule began on September 13, with publication of the proposed rule and supporting draft generic environmental impact statement (GEIS) in the *Federal Register*.

The NRC is drafting the new GEIS and rule, under 10 CFR Part 51, after an appeals court last year vacated the agency's 2010 update to its Waste Confidence Decision and Rule, which represent the generic determination that spent nuclear fuel can be stored safely and without significant environmental impacts for at least 60 years after the end of the licensed life of a nuclear power plant. Because the rule is central to licensing decisions, the NRC has suspended the issuance of new or renewed licenses for power plants and independent spent fuel storage installations (ISFSI) until the waste confidence GEIS and revised rule are finalized, currently expected in September 2014.

The revised rule (Part 51.23) states, based on the GEIS analysis, that the NRC "has concluded that the analysis generically supports the environmental impacts of continued storage of spent nuclear fuel beyond the licensed life for operation of a reactor; and supports the determinations that it is feasible to safely store spent nuclear fuel beyond the licensed life for operation of a reactor and to have a mined geologic repository within 60 years following the licensed life for operation of a reactor."

If the revised rule is adopted, licenses for future reactors or ISFSIs would not have to undergo a separate, site-specific National Environmental Policy Act analysis examining the environmental impacts of continued storage.

The proposed rule and draft GEIS can be found, and comments submitted, on the Federal Rulemaking website, <www.regulations.gov>, with a search for Docket ID NRC-2012-0246. Comments are being accepted until November 27.

The NRC also issued a schedule of 12 public meetings to be held nationwide beginning October 1 to receive comments on the proposed rule and draft GEIS. According to the NRC, the goal of the meetings is "to ensure that

the NRC's review is comprehensive, open, and inclusive and will inform the next phase of the agency's work." Notice of the schedule was published in the September 6 *FR*, but because of the federal government shutdown, the meetings have been rescheduled, as follows: Oak Brook, Ill. (Nov. 12), Carlsbad, Calif. (Nov. 18), San Luis Obispo, Calif. (Nov. 20), Perrysburg, Ohio (TBD), and Minnetonka, Minn. (TBD).

DOE drafts new framework for Hanford's WTP

The Department of Energy on September 24 released a report containing a framework for the retrieval, treatment, and disposition of the approximately 56 million gallons of radioactive and chemical tank waste at the department's Hanford Site, near Richland, Wash. The framework contains an alternative, phased approach to immobilizing portions of the waste as soon as possible, while simultaneously resolving the technical issues surrounding the Waste Treatment and Immobilization Plant (WTP).

The technical issues are centered on the ability of the WTP's pretreatment facility to mix and transfer high-level waste slurries and the robustness of piping and vessels located in the plant's "black cells," which are designed to remain inaccessible during the 40-year operational life of the vitrification plant. Last year, then Energy Secretary Steven Chu suspended construction on the WTP's pretreatment facility and slowed construction on its high-level waste facility while the DOE works to resolve the issues.

The WTP, which is being built to separate and vitrify the chemical and radioactive tank waste, consists of five facilities and complexes: the pretreatment facility, low-activity waste facility, high-level waste facility, an analytical laboratory, and ancillary buildings.

Admitting that the WTP's technical issues will take time to resolve, the DOE has introduced a direct feed low-activity waste (DFLAW) option in which waste bypasses the pretreatment facility and is fed directly to the low-activity waste facility for vitrification. According to the DOE, this will allow the department to begin immobilizing waste "years earlier than if we wait until all technical issues are resolved and the pretreatment facility is completed."

The framework report also includes a strategy for processing approximately 1.4 million gallons of transuranic (TRU) tank waste for disposal at the department's Waste Isolation Pilot Plant (WIPP). The waste, however, would need to be properly classified as contact-handled TRU waste before being accepted at WIPP.

"To be clear, this framework is not a proposal, but

rather a way to aid discussion as we work to resolve concerns regarding completion of the waste treatment mission and work to put this project on a sustainable path," Energy Secretary Ernest Moniz said in a statement announcing the report.

Moniz added that the DOE will work closely with the state of Washington, which was earlier provided a copy of the framework report, to advance completion of the cleanup of the tank waste. A consent decree signed between the DOE and the state set an enforceable deadline of 2022 for the WTP to be in full operation, and a 2040 deadline for the retrieval of all underground waste-holding tanks. On October 8, however, the DOE informed the states of Washington and Oregon that "a serious risk has arisen that the department may be unable to meet the consent decree milestone for completing hot commissioning of the low-activity waste facility and two related milestones."

The 27-page framework report can be found on the DOE's website, at www.energy.gov/downloads/hanford-tank-waste-retrieval-treatment-and-disposition-framework. ■ On September 30, the DOE's Office of Inspector General released an audit report that found shortcomings in the department's process for managing the design and fabrication changes of waste processing equipment procured for the WTP.

According to the report, the DOE's contractor for the WTP, Bechtel National, failed to follow its own quality assurance procedures in properly reviewing and approving supplier-requested design changes, and could not demonstrate that it had verified suppliers' actions to address deviations from design requirements. As an example, the report cites a Bechtel-approved repair to a low-activity waste melter lid that did not meet design specifications. Neither Bechtel nor the DOE could confirm that the design changes were actually completed and met safety-related design requirements.

The DOE's oversight of Bechtel's quality assurance program also "lacked focus," Inspector General Gregory Friedman said in a memorandum to the DOE contained in the audit report. "In our view, the depth and breadth of the department's oversight was not sufficient to identify weaknesses in the implementation or adequacy of Bechtel's procedures," he said.

Friedman noted that the audit findings parallel two earlier audits of WTP activities that identified quality assurance problems, including a 2012 audit related to the design and construction of the plant's black cells, and a 2007 audit of the quality assurance standards of the plant's integrated control network.

In response to the audit, David Huizenga, senior advisor for the DOE's Office of Environmental Management (EM), said that his office agrees with the results of the au-

dit and “will take prompt action to address the issues identified.” Huizenga also outlined EM’s plans to follow the recommendations provided by the Office of Inspector General.

The audit report, *Department of Energy Quality Assurance: Design Control for the Waste Treatment and Immobilization Plant at the Hanford Site* (DOE/IG-0894), can be found on the Office of Inspector General website, at www.energy.gov/ig/office-inspector-general.

■ On October 2, DOE contractor URS Corporation laid off Walter Tamosaitis, a WTP technical manager who was removed from the project in 2010 after raising safety concerns about the facility’s design, the *Los Angeles Times* reported on October 3. Tamosaitis claimed he was taken off the WTP project because of the safety issues he raised.

According to URS, Tamosaitis’s removal was part of a larger reduction of the company’s workforce due to budgetary constraints. Tamosaitis, however, indicated that his dismissal was in retribution for being a whistleblower. “They killed my career,” he told the newspaper.

NRC assesses expedited SNF transfer to dry cask storage

On September 30, the Nuclear Regulatory Commission made public a draft memorandum containing the NRC staff’s recommendation to the commissioners on whether regulatory action should be taken regarding the expedited transfer of spent nuclear fuel from fuel pools to dry cask storage, one of the Tier 3 lessons-learned issues the NRC is reviewing in response to the Fukushima Daiichi accident. The document was released to support an October 2 meeting of the Advisory Committee on Reactor Safeguards.

The memorandum stated: “The staff’s assessment concludes that the expedited transfer of spent fuel to dry cask storage would neither provide a substantial increase in the overall protection of public health and safety nor sufficient safety benefit to warrant the expected implementation costs. Therefore, the staff recommends that no further generic assessments be pursued related to possible regulatory actions to require the expedited transfer of spent fuel to dry storage and that this Tier 3 Japan lessons-learned activity be closed.”

Accompanying the memo was a 123-page draft report containing the staff’s regulatory and backfitting analysis supporting the recommendation. According to the report, the results of the NRC’s analysis are consistent with the conclusions of past studies that found that the risks associated with spent fuel pools are low and well within the agency’s quantitative health objectives. The NRC’s analysis is based in part on the agency’s recent study on spent

fuel pools, *Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor* (ML13133A132), which was released in draft form in June.

NRC issues report on spent ion exchange resins

The Nuclear Regulatory Commission has issued a report identifying and comparing the potential environmental impacts of six alternatives for managing low-level radioactive waste spent ion exchange resins generated at commercial nuclear power plants. A notice of the report was published in the September 27 *Federal Register*.

According to the NRC, the comparative environmental evaluation is consistent with Option 2 in the NRC staff’s 2010 paper SECY-10-0043, “Blending of Low-Level Radioactive Waste,” which identified policy, safety, and regulatory issues associated with LLW blending, provided options for an NRC blending position, and recommended that the NRC’s position on blending be risk-informed and performance-based. In consideration of stakeholder concerns regarding the environmental impacts of blending certain LLW, the NRC staff had also proposed that “disposal of blended ion exchange resins from a central processing facility would be compared to direct disposal of the resins, on-site storage of certain wastes when disposal is not possible, and further volume reduction of the Class B and C concentration resins.”

Ion exchange resins are used in nuclear power plants to capture radioactive contaminants dissolved in water used in plant operations. Over time, the resins become spent, losing their ability to remove the contaminants from the water, and become LLW. The NRC defines three classes of LLW—A, B, and C—with Class C having the highest level of radioactivity.

The six generic, nonlocation-specific alternatives evaluated in the final report are as follows:

- Alternative 1A: Direct disposal of blended Class A, B, and C spent resin LLW from a central processing facility where mechanical mixing would be used to blend the resins to produce Class A waste.
- Alternative 1B: Direct disposal of blended Class A, B, and C spent resin LLW from a central processing facility where thermal processing would be used to blend the resins to produce Class A waste.
- Alternative 2: Direct disposal of Class A, B, and C spent resin LLW, without blending.
- Alternative 3: Direct disposal of Class A spent resin LLW, with long-term on-site storage of Class B and C concentration resins at the nuclear power plants.
- Alternative 4A: Direct disposal of Class A spent resin

LLW, with volume reduction (by thermal processing) of Class B and C concentration spent resins, followed by long-term storage of the volume-reduced Class B and C concentration resins.

■ Alternative 4B: Direct disposal of Class A spent resin LLW, with volume reduction (by thermal processing) of Class B and C concentration spent resins, then disposal of the volume-reduced Class B and C resins.

According to the report, the potential environmental impacts of all six alternatives in all resource and impact areas would be small, with the exception of potential impacts on historic and cultural resources associated with Alternatives 3 and 4A, which would require the construction of long-term waste storage facilities. Those impacts, however, would be small to moderate, according to the NRC.

The report, *Final Comparative Environmental Evaluation of Alternatives for Handling Low-Level Radioactive Waste Spent Ion Exchange Resins from Commercial Power Plants*, can be accessed through the NRC's online ADAMS document retrieval system, at www.nrc.gov/reading-rm/adams.html, using accession number ML13263A276.

Mississippi group proposes used fuel storage facility

The Mississippi Energy Institute (MEI), a nonprofit group that promotes energy development, has come out in favor of hosting a facility to store used nuclear fuel within the state. The group has proposed creating a “nuclear cluster” in Mississippi that would combine a consolidated interim storage site and used fuel reprocessing facility.

According to MEI, the failure of the federal government to manage the nation's inventory of used nuclear fuel “provides an opportunity for the state of Mississippi to structure a consent-based host agreement that delivers significant economic development, employment, and energy security benefits.” MEI estimates that in the near term, constructing a consolidated storage and monitoring facility would be an expenditure of more than \$500 million and employ almost 100 people. Likewise, the development of accompanying transportation systems would have a positive economic impact on the state, according to the group.

In the medium-term, according to MEI, the state could leverage the proposed interim storage site to develop a facility to recycle used fuel, resulting in an investment of more than \$15 billion. Such a facility would create more than 18 000 direct jobs during construction and would employ 5000 during 50 years of operation, with estimat-

ed annual operating costs of \$500 million, the group said.

Leaders from MEI presented their proposal to the state Senate Economic Development Committee on August 26. According to reports, Jason Dean, a project consultant with MEI, told committee members that the initial project would not involve permanent geological storage. The group's written proposal, however, touts the state's “unique geologic salt domes” as a long-term opportunity for collocating repository facilities.

Beginning in the 1970s, the Department of Energy identified the Richton and Cypress Creek salt domes in Mississippi as potential sites for hosting deep geologic repositories for used nuclear fuel and high-level waste. After the DOE chose Richton as one of five nuclear repository candidates in 1984, however, public opposition within Mississippi intensified and the state outlawed the use of its salt domes or other geologic structures for the storage or disposal of high-level nuclear wastes and materials. Similarly, a recent DOE proposal to develop the Richton salt dome to store oil as part of the Strategic Petroleum Reserve was suspended due in part to local opposition.

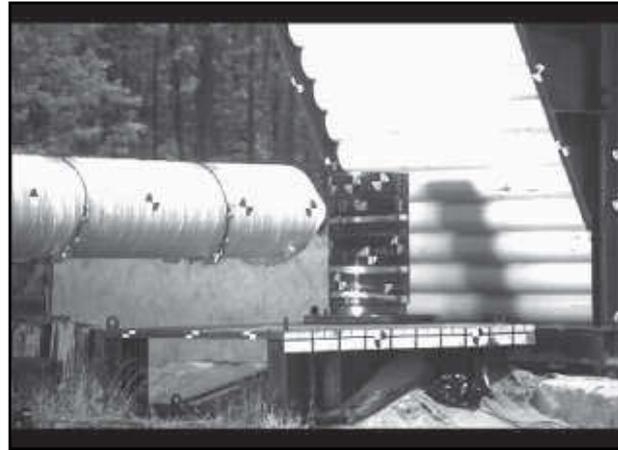
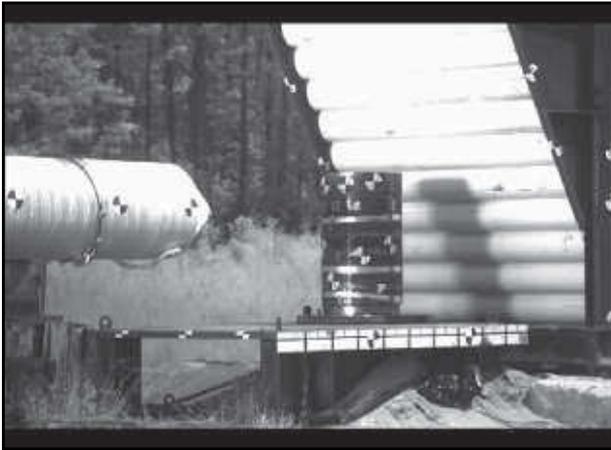
Likewise, the proposal by MEI is being met with opposition. In a statement, U.S. Rep. Steven Palazzo (R., Miss.) said: “Whatever plans are brewing for a possible nuclear waste facility, I think now is the time to send a clear message: No nuclear waste in Mississippi. Not now, not ever.”

According to MEI's website, Areva's Chief Executive Officer Michael Rencheck is a member of the organization's board of directors, along with Randy Douet, head of nuclear business development at Entergy Nuclear, and Haley Fisackerly, president and CEO of Entergy Mississippi.

More Americans support an independent waste management agency

Citing a recent public opinion survey conducted by Biscanti Research with Quest Global Research, the Nuclear Energy Institute said that a clear majority of Americans now believe that an independent federal authority led by a board of directors would do a better job of managing a nuclear waste storage facility than would a federal agency.

When asked which type of organization would better manage a nuclear waste facility—an independent federal authority with a corporate-style board of directors or a federal government agency—57 percent of respondents chose the independent authority, while 37 percent chose a government agency. Six percent said that they didn't know. This is a shift from earlier surveys in which the public was split on the issue, NEI said. A February 2013 poll



High-speed photography shows the approximately 18-foot test missile approaching the cask at more than 600 miles per hour. (Photo: Holtec International)

found that 49 percent of respondents thought a federal government agency would do a better job, compared with 43 percent for the independent federal authority.

“The shift reflects growing lack of public confidence in the federal government’s ability to accomplish anything,” said Ann Bisconti, president of Bisconti Research, in an October 2 press release from NEI.

The survey also found strong support for consolidated storage of used nuclear fuel rods. Eighty-four percent of respondents agreed that “the United States should retool its program for managing spent nuclear fuel rods from nuclear power plants to focus on consolidating the fuel rods at storage centers while the nation develops a permanent disposal facility.” Nearly half—47 percent—of respondents strongly agreed with that statement, while only 5 percent strongly disagreed.

The nuclear waste questions were part of a larger telephone survey of 1000 U.S. adults regarding nuclear energy that was conducted September 5–15 by Bisconti Research.

Holtec cask survives test missile strike

Holtec International’s HI-STAR 180 transport cask underwent stress testing at the U.S. Army’s Aberdeen Proving Grounds on August 28, when a scaled model of the used nuclear fuel cask was subjected to the impact of a 1090-lb polyurethane test missile traveling at 888 feet per second. According to Holtec, the cask weathered the impact with large performance margins, confirming the company’s predictions.

The test was conducted on behalf of Holtec’s client, Axpo Power AG, which is seeking certification of the cask from Swiss regulators. Engineers from the Swiss Federal Nuclear Safety Inspectorate (ENSI) and the Swiss Association for Technical Inspections (SVTI) witnessed the demonstration. In accordance with ENSI’s requirements, the missile test was designed to simulate the impact of a crashing aircraft on the HI-STAR transport cask while in

use as a spent nuclear fuel storage container.

According to Holtec, the HI-STAR 180, which was licensed by the U.S. Nuclear Regulatory Commission in 2009 to transport high-burnup pressurized water reactor fuel and mixed-oxide fuel, has been designed as a dual-purpose cask for storage in accordance with Swiss regulations and in alignment with International Atomic Energy Agency requirements for a type B(U)F cask. Once formally approved for use by ENSI, the first batch of 14 HI-STAR casks will be built at the Holtec Manufacturing Division in Pittsburgh, Pa.

In a post-impact inspection of the cask, SVTI confirmed that the helium leak rate from the cask’s containment boundary was 1000 times smaller than the established criteria, according to Holtec. In addition, all of the body bolts in the containment boundary of the cask remained elastic and there was no breach of the containment boundary.

Video clips of the test can be found on the Holtec International website at www.holtecinternational.com/news/videos/.

D&D Updates

■ The Department of Energy noted progress in its clean-up efforts this past summer at its Portsmouth, Ohio, and Paducah, Ky., sites, where the DOE’s Gaseous Diffusion Plants are located.

On August 23, the DOE announced that 28 railcars filled with debris from the Paducah site were shipped to EnergySolutions’ low-level radioactive waste disposal facility in Clive, Utah. The waste consisted of 1920 tons of steel I-beams, steel plates, piping, ductwork, and equipment removed from the C-340 Metals Reduction Plant, which was demolished to a slab in February after nearly five months of work by DOE cleanup contractor LATA Environmental Services, of Kentucky. The plant site was demobilized on August 8.

The metals plant was used to manufacture uranium metal during the Cold War and contained polychlorinat-



A Paducah & Louisville Railway train carries 1920 tons of waste from the DOE's Paducah site to EnergySolutions' low-level radioactive waste disposal facility in Utah. (Photo: DOE)

ed biphenyls, radionuclides, and asbestos. According to the DOE, it is the first uranium processing facility at the site to undergo full-scale demolition. Shipments of the low-level debris left Paducah during the week of July 15, with the last shipment arriving at the Clive facility on August 8.

The DOE also announced on August 27 that the first shipment of mixed LLW from the Portsmouth site was sent to Waste Control Specialists (WCS) in Andrews, Texas, for treatment and disposal. Since there are few alternatives available for disposing of radioactive waste, especially when it is mixed with hazardous waste, the DOE said that completing the shipment to WCS's commercial facility was a significant achievement for the site. WCS opened its facility for the disposal of federal LLW and mixed LLW in June.

According to the DOE, the mixed waste contained uranium and chromium contaminants. Because of the hazardous chromium waste, the material was subject to the regulations and criteria of the Environmental Protection Agency's Resource Conservation and Recovery Act, which is intended to protect human health and the environment from the potential hazards of waste disposal. Treatment is required to help ensure that such waste materials do not leach into the environment after disposal.

In related news, Sens. Mitch McConnell and Rand Paul, and Rep. Ed Whitfield (all R., Ky.) urged Energy Secretary Ernest Moniz in an August 16 letter to begin cleanup work at the Paducah Gaseous Diffusion Plant as soon as possible. While decontamination and decommissioning work at the Paducah site has been under way for some time, it was only in May that uranium enrichment company USEC announced that it was ceasing operations at the plant. The Portsmouth plant has been closed since 2001.

The legislators said that they supported the DOE's efforts to move any unused or unobligated funds into the D&D budget for the site, but were concerned about the possibility of the department's placing the Gaseous Diffusion Plant in a surveillance and maintenance state for an undetermined amount of time.

■ An audit report released by the Department of Energy's Office of Inspector General on September 26 identified issues regarding the department's management of a project to replace the Radioactive Liquid Waste Treatment Facility (RLWTF) at the Los Alamos National Laboratory (LANL). The RLWTF, which is used to treat and dispose of low-level radioactive and transuranic (TRU) liquid wastes generated at LANL, has been in operation since 1963 and is reaching the end of its operating life. The DOE has been planning a replacement facility since 2004.

According to the IG, LANL and the National Nuclear Security Administration, which oversees the laboratory, have not effectively managed the RLWTF replacement project. "Despite more than seven years of effort and the expenditure of \$56 million, design work for the TRU facility has not been completed, and the project's completion date is 11 years behind schedule," the report says.

In addition, the report notes that the total estimated cost for the project has risen from \$86 million to as much as \$214 million, a 149 percent increase.

The audit report does, however, note actions that LANL and the NNSA have taken to strengthen the management of the RLWTF project, including improving life-cycle cost estimates and implementing risk mitigation practices. The laboratory has also worked to minimize the

amount of liquid radioactive waste it generates. According to the report, the waste reduction will allow LANL to reduce the size and complexity of the replacement facility, resulting in an overall cost savings. Based on NNSA estimates, the IG said that the new facility will be designed with the capacity to process about 65 percent less TRU waste and 47 percent less low-level waste per year than previously forecasted.

The audit report, *The Radioactive Liquid Waste Treatment Facility Replacement Project at Los Alamos National Laboratory* (OAS-L-13-15), can be found on the DOE Office of Inspector General website, at www.energy.gov/ig/office-inspector-general.

■ To collect lessons learned and best practices in the cleanup of United States nuclear facilities, and to prevent a loss of D&D knowledge and expertise that has been gained over the years by DOE employees and contractors, the DOE's Office of Environmental Management (EM) joined a collaborative effort to make these resources available online, the department announced on September 30.

A public website where D&D knowledge and expertise is collected, consolidated, and shared, the Deactivation and Decommissioning Knowledge Management Information Tool (D&D KM-IT), <www.dndkm.org>, is a universally available and usable system that provides a single point of access to the collective knowledge base of the D&D community within and outside of the DOE, the department said. The D&D KM-IT website was developed by the Applied Research Center at Florida International University in collaboration with EM, the Energy Facility Contractors Group, and two former department centers that collected D&D lessons learned and practices—the As Low As Reasonably Achievable (ALARA) centers at the DOE's Hanford and Savannah River sites, which were closed due to budget constraints in recent years. The centers had assisted EM employees with new tools and work practices.

According to the DOE, the website now contains information updates and activity reports from the former ALARA centers from 2003 to 2011, preserving valuable knowledge, allowing specific information to be found easily through a search tool, and disseminating data as needed to the D&D community. The lessons and practices focus on topics such as the D&D of reactors at Argonne National Laboratory in Illinois and the Savannah River Site in South Carolina; managing a buried waste exhumation project at the Idaho National Laboratory; and demolishing a research facility building at Lawrence Liver-

more National Laboratory in California.

"Members of our highly trained D&D workforce continually acquire specialized skills with each project," said John De Gregory, who led the D&D KM-IT project. "They understand that carefully engineered and executed D&D activities must address the reality that D&D cleanup projects are extremely dynamic, requiring innovative approaches. These workplace experiences will provide valuable knowledge to the D&D workforce of today and tomorrow."

The DOE is encouraging members of the D&D community to post additional lessons and practices to the D&D KM-IT website. Instructions for uploading documents can be found on the website's help page at www.dndkm.org/LessonsLearned/Help.aspx.

■ On August 29, Areva announced that it had successfully decontaminated the major components of the Chooz A nuclear power plant located in Northern France. The company decontaminated the reactor's primary loop elements, including the four steam generators, pressurizer, and primary loop lines. According to Areva, this is the first project of its kind performed by the company in France, and is a major step forward in the ongoing decommissioning of the 320-MWe pressurized water reactor, which was removed from service in 1991.

Areva said that it used a combination of its CORD UV and AMDA techniques to carry out the decontamination. The process uses the progressive introduction of chemicals into the primary circuit, allowing them to circulate through the system over several days. The process enables the company to reduce the degree of the components' radioactivity to the point that they can be classified as "very low-level waste," according to Areva.

"The successful completion of this operation testifies to the effectiveness of our process," Philippe Samama, executive vice president for Areva's Installed Base business unit, said in a press release. "For over 35 years, this proven, efficient, and economical solution has enabled Areva to decontaminate the components of more than 30 nuclear power plants worldwide, including [in] Germany, Japan, China, and the United States."

Following decontamination, the components were transported to a facility operated by Andra, the French nuclear waste management agency. Compared to alternative solutions, the chemical decontamination process produces a low volume of radioactive waste, which is also managed by Andra, according to Areva. Once the process is completed, the used chemicals decompose to carbon dioxide and water, leaving behind no additional waste. ■