Yucca Mountain in the News

• On May 8, the U.S. House of Representatives voted 306–117 to approve President Bush's recommendation of Yucca Mountain as the nation's first geological nuclear waste repository. The debate over the issue has now moved to the U.S. Senate, where the vote, which must be held by July 25, is expected to be much closer. On June 5, the Senate Energy and Natural Resources Committee voted 13–10 to approve the site, sending the issue to the Senate floor.

• If Congress approves the site for the repository at Yucca Mountain, the U.S. Department of Energy plans to further address uncertainties about the repository performance by continuously improving its scientific understanding of the site, said Margaret Chu, head of the agency's Office of Civilian Radioactive Waste Management. The repository will remain open for roughly 100 years after it begins operations, she told members of the Nuclear Waste Technical Review Board, and during that time the DOE will incorporate new information and science into repository development, operations, and closure. In addition, the agency will establish the fleet equipment and operational needs of the transport program, and Chu noted that the DOE has a stated preference for shipment by rail.

• Yucca Mountain is currently limited by law to receiving 77 000 tons of waste, but Energy Secretary Spencer Abraham noted that the facility could be expanded. With most of the nation's operating nuclear power plants considering or already planning for operation beyond their original 40-year licenses, the amount of high-level waste and spent fuel generated will exceed the legal limit. However, Abraham said, a future energy secretary could consider expansion after 2007.

NRC Orders Enhanced Spent-Fuel Pool Security at Decommissioning Plants, GE Fuel Storage Facility

In late May, the U.S. Nuclear Regulatory Commission has issued orders requiring all decommissioning commercial nuclear power plants with spent fuel stored in waterfilled pools and the General Electric spent nuclear fuel storage facility in Morris, Ill., which also uses pool storage, to implement interim compensatory security measures for the current threat environment. Some of the requirements formalize a series of security measures that NRC licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11 terrorist attacks. Additional security enhancements, which have emerged from the ongoing comprehensive security review, are also spelled out in the order. The requirements include increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater standoff distances, enhanced coordination with law enforcement and military authorities, and more restrictive site access controls for personnel.

The security requirements will remain in effect until the Commission determines that the level of threat had changed, or additional security measures are needed following a comprehensive reevaluation of current safeguards and security programs.

DOE Wins Court Order To Allow Pu Shipments to South Carolina

On June 18, a U.S. federal judge ordered South Carolina Gov. Jim Hodges not to block U.S. Department of Energy shipments of plutonium from Rocky Flats headed to the Savannah River Site outside Aiken, S.C., and on June 20, a federal appeals court upheld the decision. An earlier ruling the previous week gave the DOE the go-ahead to transport six metric tons of plutonium from Colorado to South Carolina. In turn, Gov. Hodges had threatened to block all highways entering the state. The South Carolina governor has been battling with the DOE for several months over the shipments because he fears that the state may eventually become a permanent repository for the material. His fear is based on what he feels is the DOE's reneging on a promise to build a plutonium conversion facility in the state.

Said Energy Secretary Abraham about the ruling: "America's national security and the security and safety of South Carolina citizens is well-served by ensuring the plutonium arrives safely, without interruption, at the Savannah River Site."

In the wake of the most recent rulings, however, the governor said he may appeal the issue all the way to the U.S. Supreme Court.

For security reasons, the DOE has not indicated when the shipments would begin, how much material would be moved per trip, or what routes the vehicles would take as they move from Colorado to South Carolina. It will take some 18 months to transfer all the material.

International Updates

• Finland's parliament voted 107–92 to approve building a fifth nuclear power reactor for the country. This is the first decision to build a new nuclear plant in Europe or Scandanavia in some 15 years. The new unit is expected to be between 1000 and 1600 MWe and to be sited at either the Olkiluoto or Lovissa site, both of which already host existing nuclear power plants.

• As expected, on April 30 Germany's Konrad low- and intermediate-level radioactive waste repository was awarded a license by the state of Lower Saxony. The Federal Radiation Protection Agency, however, which applied for the license, immediately took steps to delay the project by withdrawing its right to legal protection for the license. This means that the project cannot go ahead until all intervenor legal challenges are settled in court. This will add some three or four years before project completion can begin, with actual waste emplacement coming even later.

• Canada's legislature is considering a bill that would add two alternatives to the country's plan for disposing of radioactive waste. The country's current policy is to bury the radioactive material deep in the igneous rock of the Canadian Shield. The bill, which would add the possibilities of storing the material aboveground in one central site or storing it at several sites near existing reactors, would represent a major policy shift for the nation.

• The U.K. Royal Society, that country's independent academy of science, has issued a report on nuclear waste that calls for new agencies to restore public confidence, encourage a public debate, and to develop the right radwaste management policy. The report calls for a "new era" of radwaste policy that recognizes past and present failures. New agencies would replace the Radioactive Waste Management Advisory Committee and Nirex, which are viewed as too "establishment" and too closely tied to industry. The new agencies would manage the proposed public debate on future waste management, and would advise on various waste management regimes and processes for site selection. Membership would combine scientific and technical expertise with economic, social, and environmental awareness. The full report is available on the Internet at <u>www.royalsoc.ac.uk</u>.

• A dry storage facility for 40 000 tonnes of spent nuclear fuel is scheduled to be built at Krasnoyarsk, Russia, near the incomplete RT-2 reprocessing plant at Zheleznogorsk in southern Siberia. The nuclear utility Rosenergoatom is likely to finance the facility, and construction is expected to begin in 2003. The facility should be ready to receive some 10 000 tonnes of spent fuel by 2006 or 2007.

Also in Russian, Minatom has announced that following public hearings held last year, it will proceed with the construction of an \$80 million repository for intermediate- and solid low-level radioactive waste on the large island of Novaya Zemlya, northeast of Murmansk and Archangel. Construction of the repository and accompanying port will take three years.