

YUCCA MOUNTAIN

OCRWM chief leaves office, sees repository as the only option

WARD SPROAT, THE former head of the Department of Energy's Yucca Mountain repository project, has his sights set on a different challenge these days: new nuclear build. "I don't know where yet or with whom, but I'm going to be involved with building a new nuclear plant," he said.

Sproat was director of the DOE's Office of Civilian Radioactive Waste Management (OCRWM), which is in charge of the Yucca Mountain Project. As a presidential appointee confirmed by the U.S. Senate, his term as OCRWM head ended when the Bush administration left office.

In a January interview with *Nuclear News*, Sproat talked about his accomplishments while in charge of OCRWM and about the future of the repository project at Yucca Mountain, in Nevada. He wanted to make it clear that he left OCRWM because his time was up at the agency and for no other reason, such as frustration over his office's reduced annual budgets from Congress that have resulted in the project's inching along, as had been hinted at in the January 2009 issue of *NN*. Sproat conceded, however, that he had not been contacted by the Obama administration about staying on the job, as had Bush's defense secretary, Robert Gates, who continues to serve under Obama—nor would he have been likely to stay even if asked.

The current head of OCRWM is Christopher Kouts, a federal employee but not a presidential appointee. Kouts is serving as acting director, and as such his role could be short lived if the Obama administration appoints a new director. Before leaving OCRWM, Sproat selected Kouts, who had been principal deputy director of OCRWM, as his successor and spent more than a year preparing him for the job. "He's very well positioned and very well qualified to run the program going forward

The former head of the DOE's repository project talks about its future and his accomplishments.

without me," Sproat said.

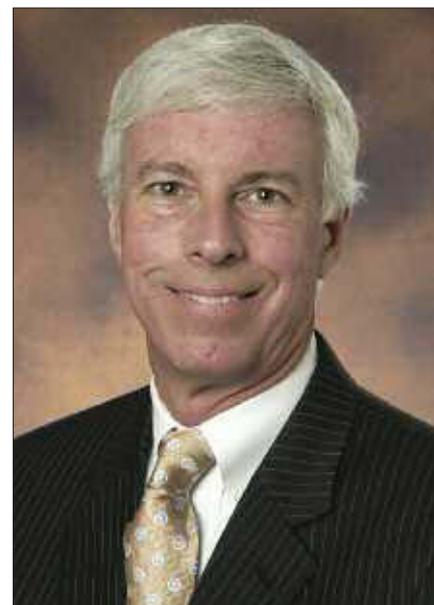
With Sproat in charge of OCRWM, the DOE submitted an application to the Nuclear Regulatory Commission last June for a license to construct the repository (*NN*, July 2008, p. 16). The NRC, which docketed the application in September, now has three to four years to complete its safety analysis and public hearings (*NN*, Oct. 2008, p. 80). OCRWM's current estimated date for the completion of construction of the repository is 2020.

Looking back

The DOE's history with Yucca Mountain as the site for a potential repository goes back more than 30 years. The agency began studying the site in 1978 to determine whether it would be suitable as the first long-term geologic repository in the United States for spent nuclear fuel and high-level radioactive waste. Currently, those materials are stored at 121 sites around the nation.

In 1983, the DOE selected nine locations in six states for consideration as potential repository sites. The nine locations were studied and the results were reported in 1985 to President Ronald Reagan. Based on the reports, the president approved three sites—Hanford, Wash.; Deaf Smith County, in Texas; and Yucca Mountain, in Nevada—for site characterization.

In 1987, Congress amended the Nuclear Waste Policy Act of 1982 and directed the DOE to study only Yucca Mountain. On July 9, 2002, the Senate cast the final legislative vote approving the development of the Yucca Mountain repository, and on July 23, 2002, President George W. Bush signed House Joint Resolution 87, allowing the DOE to take the next step in establishing a



Sproat: "I have done my part."

repository at Yucca Mountain. The proposed repository is located in a desert on federal land adjacent to the Nevada Test Site in Nye County, about 80 miles northwest of Las Vegas.

Originally, the repository was scheduled to start accepting spent fuel on January 31, 1998, but the project has been delayed by legal challenges, political pressure, underfunding, and concerns over how to transport waste to the site. Currently, there is no official target date for the opening of the repository.

The future of the project would seem to depend, ultimately, on funding. For fiscal year 2008, Congress voted to cut the project's budget from \$494 million to \$390 mil-

lion, the lowest appropriation since 2002, when the Yucca Mountain site was approved. The reduced funding also continued a four-year trend during which appropriations were below the amounts requested by the DOE.

Goals accomplished

Sproat, who began his term as OCRWM director in June 2006, said he joined the DOE with specific goals in mind: getting the Yucca Mountain Project back on track, filing the license application with the NRC, and issuing the DOE's standard spent fuel contracts for new plants. All of those things have been accomplished, he said. "I did what I set out to do. It's time for me to move on."

Sproat dismissed the notion that there had been a rush to file the license application before the Bush administration left office, as some project opponents have claimed. "If it wasn't a complete application, I would not have allowed it to be submitted, nor would the NRC have accepted it," he said.

Asked whether he thinks the repository will actually open one day for waste disposal despite all the challenges and delays, Sproat replied not with a yes or no answer, but by saying that there seems to be little political will to kill the project. His response seems surprising in the face of the project's consistent opposition from Nevada lawmakers and its reduced annual funding, but, he said, "Based on all my interactions with the people on both sides of the aisle in both houses on the Hill, I don't see any willingness or interest in revising or repealing the Nuclear Waste Policy Act."

Sproat suspects that Congress will provide the project with enough funding over the next three to four years to allow the DOE and the NRC to proceed with the licensing process. Then what? "I don't know," he said, "but we'll get a sense of that in the fiscal year 2010 budget. Then we'll see how long it takes." He said that he also thinks that if the NRC issues a license to construct the repository, Congress will be more willing to take up legislation to allow the Nuclear Waste Fund to be used to build it.

As for Yucca Mountain's storage capacity—currently, there is a statutory limit of 70 metric tons heavy metal—Sproat feels that it will be raised, eventually. "I think that until the licensing process comes to a conclusion, there is no political push to make that happen," he said.

Interim storage won't fly

One thing that Sproat seems certain about is that the United States won't be turning to centralized sites for interim storage. He mentioned the DOE's December 2008 report on the subject, which noted a number of issues regarding centralized storage, such as that a law change would be needed before the DOE could begin a demonstration project (*NN*, Jan. 2009, p. 72). While he once fa-

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A SAFETY RECORD WAS SET AT INL'S AMWTP on December 17, when workers reached the five-year mark—more than 7.7 million hours—without a lost workday injury. The safety streak at the Department of Energy's Advanced Mixed Waste Treatment Project began December 7, 2003, following the last lost workday injury, which occurred when an employee tripped on a stairway. Workers at the AMWTP retrieve, characterize, treat, and ship radioactive transuranic waste from Idaho National Laboratory to the DOE's Waste Isolation Pilot Plant in New Mexico.

BSRI WORKERS AT SRS SET A SAFE-HOURS MILESTONE on January 20, when they reached 22 million hours of work without a lost-time accident. The last lost-time injury for a Bechtel Savannah River Inc. (BSRI) construction worker occurred in June 1998. BSRI is part of the Westinghouse Savannah River Company team that manages the contract for liquid waste disposition at the Department of Energy's Savannah River Site, near Aiken, S.C. Recent ongoing projects involving BSRI workers at SRS include the Defense Waste Processing Facility's new disposal cell construction and modifications to disposal cells supporting waste disposition at the saltstone facilities. BSRI said that the milestone established an SRS record for hours worked without any time lost due to a job-related injury or illness. By comparison, the average U.S. construction company incurs 209 lost-time injuries in 22 million work hours, according to BSRI.

A BILL TO ABOLISH NEVADA'S NUCLEAR PROJECTS AGENCY has been introduced in the state Senate, according to a February 5 *Las Vegas Sun* article. Senate Bill 117 would place the Nevada Commission on Nuclear Projects under the authority of the governor, currently Jim Gibbons. The bill was introduced by Sen. Barbara Cegavske (R., Las Vegas) and was prompted by the controversy created when former commission director Bob Loux gave himself and his staff unauthorized raises, according to the article. The commission leads the state's effort to prevent the Department of Energy from opening a nuclear waste repository at Nevada's Yucca Mountain. Cegavske did not respond to a request from *Nuclear News* to comment on the bill.

vored the concept of centralized interim storage, he has since changed his mind. "My argument is that we already have interim storage at a whole bunch of sites around the country," he said, referring to the operating and retired nuclear plants at which spent fuel is stored on site.

In addition, he argued, no state would be willing to host an interim site. The DOE currently stores nuclear waste—much of it from bomb production during the Cold War era—at its Savannah River Site in South Carolina, its Hanford Site in Washington state, and its Idaho Operations site. That waste is destined—someday—to go to Yucca Mountain, and it seems unlikely, Sproat said, that residents and lawmakers in those states would approve measures to have additional waste moved in. "I think you'll find the political realities are such that nobody is going to agree to have a centralized interim storage site in their state," he said.

Sproat added that even if a state or community volunteered to host a site, political resistance would surface at the state level and likely from bordering states. He mentioned the experience of Private Fuel Storage, a company formed by a consortium of nuclear utilities to operate an interim facility proposed to be located on the Goshute Indian Tribe's reservation in Skull Valley, Utah. The NRC issued a construction and

operating license to PFS on February 21, 2006, but the project now seems unlikely to proceed. Political pressure, federal rulings, and court battles have stalled the project all along the way.

The DOE's December report also notes the possibility of locating interim spent fuel storage at sites that have volunteered to host facilities to be built if the DOE's Global Nuclear Energy Partnership were to go forward. (Possible facilities in the GNEP program include fast reactors, separations plants, and recycling and fuel fabrication plants.) Sproat said, however, that he feels that the proposed GNEP sites are a non-starter because of the fierce battles that would be fought if a community were to try to serve as host. He said that community leaders would be unwilling to fight those battles over the many years it would take. "When you take a look at the political realities of nuclear waste, all of these other ideas are good in theory," he said, "but they will be extremely difficult in practice to put in place because of political opposition."

Making the case

For now, Sproat wants to see the repository project come to a rightful conclusion. He mentioned the nation's policy and law regarding spent fuel storage and the progress—"albeit slow"—that has been made toward

opening the repository. Project opponents, too, will get their say, he noted. The NRC recently announced that it is establishing three review boards to determine which of nearly 320 contentions filed by 12 petitioners should be considered during adjudicatory hearings for the Yucca Mountain Project (*NN*, Feb. 2009, p. 18). Sproat said that the DOE had already submitted, ahead of schedule, responses to all of those contentions. “We are now at the point where all of the people who have been saying for years that it’s not a good site, it’s not safe—all of them will have a chance to make their case in front of the NRC, and the NRC will decide,” he said. “If the NRC grants a license, let’s go do

it. There are no other viable alternatives right now as far as I can see.”

With his OCRWM experience behind him, Sproat, an American Nuclear Society member since 1988, now heads to new ventures, which will include someday helping to build a new nuclear plant. He seems to have the background for it, including experience in senior management, engineering, and licensing in the nuclear industry, both domestically and internationally. Before his appointment to head OCRWM, he was the managing partner of McNeill, Sproat & Associates, a management consulting company specializing in energy technologies. Prior to that, he was vice president of inter-

national projects for Exelon Generation, where he served as a director on the board of Pebble Bed Modular Reactor (Pty.) Ltd., in South Africa. Sproat also held various management positions with PECO Energy, now a subsidiary of Exelon Corporation, for more than 25 years.

Overall, Sproat seems to be satisfied with his work in moving the repository project forward. “I have done my part, I think, for the country to help figure out the waste storage problem,” he said. “It’s time for some other folks to step up to try to attempt to keep it going.”—*Rick Michal*

Section continued