NNSA NOT PAUSING DESIGN ON PROJECTS IN LIGHT OF JAPANESE NUCLEAR CRISIS

The National Nuclear Security Administration isn’t planning to pause design work on its major nuclear construction facilities in the wake of the nuclear crisis unfolding in Japan, and the decision has generated debate among some former NNSA officials. Damage from a March 11 earthquake and ensuing tsunami has pushed several Japanese nuclear reactors to the brink of meltdown, but a NNSA spokesman told NW&M Monitor that it would not interrupt design work on the Chemistry and Metallurgy Research Replacement-Nuclear Facility planned for Los Alamos National Laboratory and the Uranium Processing Facility slated for the Y-12 National Security Complex.

NNSA spokesman Bill Gibbons noted that those facilities are very different from a nuclear reactor in explaining the NNSA’s decision to push ahead with design on the projects, which is approximately 50 percent complete. “One is essentially a non-industrial chemistry lab which works with nuclear materials, and the other a uranium manufacturing facility,” Gibbons said in an emailed statement. “That said, the latest seismic and structural design codes and standards are being incorporated into both facilities. CMRR-NF and UPF are being designed with the utmost emphasis on robust and layered safety systems.”

Former NNSA Official: ‘You’ve Got to Pause’

Everet Beckner, who served as the head of the agency’s Office of Defense Programs during the Bush Administration, told NW&M Monitor that not pausing to consider the implications of the Japanese nuclear crisis on the NNSA’s facilities would be a mistake. He said the same risk methodology that led to the siting of the nuclear plants next to the ocean in Japan needs to be reviewed. “I think we’re going to have to go back and revisit that and kind of put a new answer in the box,” Beckner said. “It may be the same answer but I don’t know how we could argue today that it will be the same answer. I think you’ve got to pause.” Gibbons emphasized that the agency would continue to make safety a top consideration when designing its major construction facilities. “Safety has been, and remains, one of our top priorities as we make the investments needed to ensure our nation’s nuclear security,” Gibbons said. “[The] Department of Energy and the National Nuclear Security Administration have rigorous safety regulations in place to ensure our facilities are constructed and operated safely and responsibly.”

DNFSB Chairman Peter Winokur said that the review of the earthquakes should play an important role in updating the seismic standards that DOE and the industry use to estimate seismic hazards and establish conservative design requirements, but he conceded that it was too early to gauge the specific impact on NNSA projects. “The events in Japan clearly validate the need for robust defense-in-depth and emergency response plans to ensure sufficient safety systems are available to address unexpected situations including the potential for release of radioactive material,” Winokur said in a written answer to questions from NW&M Monitor.

Pause Would Drive up Costs

Beckner conceded that pausing would drive the costs of the facilities up. The most recent cost estimates provide by NNSA indicated that the CMRR-NF could cost between $3.7 and $5.8 billion, and the UPF could cost between $4.2 and $6.5 billion. However, not all experts agreed that pausing would be prudent, or valuable. “There’s nothing they can learn from a pause that they don’t know,” said Don Trost, the Executive Vice President of TechSource, a Los Alamos-based science and engineering consulting firm that does a lot of work for the NNSA. “If there are issues, the only issues are potentially seismic standards, and those can adequately be addressed in the design and design review process. A pause doesn’t do anything except slow down the project and slowing down the project doesn’t do anything except add cost.” In advocating for continued work on the design of the facilities, former NNSA Administrator Linton Brooks noted that the facilities are vastly...
different from reactors. “You’re not really talking about the same thing,” he told NW&M Monitor.

Not pausing, however, would open up the NNSA to criticism and potentially to lawsuits that could also slow the project down, Beckner said. “I think we have to be careful not to start shouting the sky is falling,” he said, “but we need to be equally determined to do a very thorough job of putting the case back together so that there are no holes in the argument, because if there are holes in the argument it’s just going to make it worse.”

Seismic Issues for Both Facilities

Seismic concerns have been considered at both facilities, especially at Los Alamos and CMRR-NF. Recent studies revealed a significantly increased risk of major earthquakes at the lab, which is built atop a volcanic plateau criss-crossed by active faults. A lab study found that the area has experienced two or three major earthquakes of magnitude greater than 6.5 in the past 10,000 years. As a result, earthquake risk has been a major driver in rising nuclear safety costs at the lab, both associated with the lab’s current plutonium facility, maintenance of the existing Chemistry and Metallurgy Research building and the design of its replacement.

Y-12’s recent Site-Wide Environmental Impact Statement indicates that a “moderate” seismic risk exists at Y-12 that “should not impact the construction and operation of the UPF or other new facilities.” According to the document, all new facilities and building expansions at Y-12 are being designed to withstand the maximum expected earthquake-generated ground acceleration in accordance with DOE safety guidelines, which appears to be in the range of a 5.0-6.0 on the Richter scale within 100 miles of Y-12.

A Move Toward More Conservatism?

Beckner suggested that a recent push by the NNSA to relax safety standards at CMRR-NF—justified by reducing the amount of material at risk in the facility—would run into significant opposition in light of the incidents in Japan. In an effort to reduce the cost of the facility, the NNSA is exploring downgrading some of the safety systems at the facility, like the fire suppressions system and active ventilation system. “There’s no way to avoid it now,” Beckner said. “I would expect [Energy Secretary Steven Chu] to be much more sensitive to the views of the Defense Board because he’s going to be looking for independent eyes and ears, ones that are not tied to the project.”

The Defense Board has previously raised concerns about the NNSA’s plans. “If NNSA changes assumptions regarding the nuclear material-at-risk, the Board will review the impact that has on the overall CMRR-NF safety strategy, including seismic safety,” Winokur said. “The Board feels strongly that the CMRR-NF seismic safety strategy must be conservative, providing adequate protection to the public, workers, and the environment.”

—Todd Jacobson

NEW TENNESSEE LAWMAKERS SPEAK OUT AGAINST Y-12/PANTEX CONSOLIDATION

They’re freshmen Republicans in Congress, but Reps. Chuck Fleischmann and Scott DesJarlais are speaking out and joining with the rest of the Tennessee delegation in opposing the consolidation of the management and operation contracts at the Y-12 National Security Complex and the Pantex Plant. In March 14 letters to Energy Secretary Steven Chu and National Nuclear Security Administration chief Tom D’Agostino, the Congressmen asked that individual contracts at each of the sites be extended—similar to what’s been done recently at some national laboratories. Consolidating the contracts would hinder the ability of the plants to meet Department of Defense goals and modernize the nation’s nuclear deterrent, they said. “We are concerned that the current NNSA strategy for consolidating operations and construction management at these sites will jeopardize their execution of national security missions. Extending the individual contracts would be a more responsible approach,” Fleischmann and DesJarlais wrote.

After announcing in March of 2010 that it was pursuing the consolidated contract as well as a complex-wide construction management initiative, the NNSA has faced stiff opposition from Congress and union groups, and has yet to release a draft Request for Proposals for the contract. In January, the agency issued a Request for Information asking industry how the Uranium Processing Facility would impact opinions of either the consolidated contract or the construction management opportunity, and NNSA officials have suggested a draft RFP could come in late April. Still, that gives the agency less than a year to complete the procurement for Y-12 and Pantex, making it likely that extensions will be necessary when the current contracts expire in March of 2012.

Lawmakers Worry About Disruption

The lawmakers said combining the contracts at this time could disrupt completion of important projects at Y-12 and Pantex, the Congressmen said, referring to UPF at Y-12.