agency in April and without permanent heads of the offices of Defense Programs and Defense Nuclear Nonproliferation since Robert Smolen and William Tobey resigned in January.

Complex Transformation Also Surviving

D'Agostino already has stayed longer into the new administration than many thought he would. And, perhaps more surprising, the blueprint for weapons Complex Transformation that was formulated under D'Agostino and took real shape late in the Bush Administration has largely survived and appears to still hold favor. D'Agostino said he still believes in the plan. "The details, of course, in plans are subject to change," D'Agostino said. "But the concept is the right concept and the Administration—I'm part of the Administration now, Senate-confirmed [in 2007] … The concept is the right concept, that is accepted. We're working the details. That's going to get reflected in out-year budgets. And that's my job, to make sure that out-year programs and budgets match the vision that's been established."

As to whether he's the right guy for the job, he said, "I think we need someone in this job—and there are a few people who could do it—but what you need is somebody that is going to take the President's vision and turn that into real programs that can get implemented out in the field. … My job is take the President's Prague speech and the vision that he laid forth and turn that into real programs and make it happen." Beyond that, D'Agostino didn't reveal his expectations. "I can say the President knows I'm in this job. The secretary knows I'm in this job," he said. "They expect me to do this job, just as in the previous administration. Anybody in any leadership position … knows that on any given day they can get a phone call saying, 'We've decided to make a change.' Until that time, you're in charge. Make it happen."

—From staff reports

DNFSB, NNSA COME TO AGREEMENT ON CMRR-NF SEISMIC, VENTILATION ISSUES

As Obama Administration Examines Project, Money Fenced Off by Congress is Freed Up

LOS ALAMOS, N.M.—The Defense Nuclear Facilities Safety Board has signed off on a handful of issues that had limited the National Nuclear Security Administration from spending $47 million in Fiscal Year 2009 funds on design and construction of the Chemistry and Metallurgy Research Replacement project. The moves are expected to help NNSA clear several of the final hurdles that project officials face before the Congressionally-fenced-off money is freed up. The DNFSB notified the NNSA last week that it had approved the agency's responses to three remaining "findings"—most notably those pertaining to seismic and safety-class systems—related to the design of the CMRR-Nuclear Facility, a 300,000-square foot project that hasn't begun to be built yet at Los Alamos National Laboratory.

The findings were among seven issues that the NNSA addressed over the last eight months to satisfy a provision of the FY2009 Defense Authorization Act. Due to DNFSB's seismic and safety class system design concerns, the bill authorized the agency to spend only $50.2 million on design of the CMRR-Nuclear Facility and construction of the adjacent Radiological Laboratory/Utility/Office Building—both of which will replace the lab's aging Chemistry and Metallurgy Research facility—until the issues were resolved. The first $164 million phase of construction on the RLUOB at LANL's Technical Area 55 is scheduled to be completed by the end of September and it will take another two years for approximately $200 million worth of special process equipment to be installed, with workers slated to begin moving into the facility in 2011. Current estimates peg the cost of the entire project at $2 billion, but that price tag is likely to increase.

Money Likely Available in September

Congress appropriated $97.2 million for the construction of the RLUOB and design of the nuclear facility in FY2009, but the NNSA was only allowed to spend $50.2 million until the issues with design of the CMRR were addressed. The NNSA requested $55 million for the project in FY2010—less than officials had projected in previous years—and Congress has stood behind the project, with the House matching the request and the Senate including $98 million.

The NNSA and DNFSB must submit reports to the Senate and House Armed Services Committees and wait 15 days for the money to be freed up, but DNFSB Vice Chairman John Mansfield said all outstanding issues had been addressed and that the process should be finished by September. "The process was more formal than it needed to be but it was important to have Congress motivate DOE and us to get agreement on these things," Mansfield told *NW&M Monitor*. "We may have had to fight these things out for a long time and potentially delay the progress of the project, but this gave us a clear goal. We would've eventually gotten to the same place, but whether we would've gotten there this quick is unclear."

Nuclear Facility Anticipating 2011 Construction Start

As nearly 250 workers scurry around the RLUOB completing construction, a large hole sits adjacent to the facility,

currently used for construction staging. The hole, which butts up against the perimeter security fence of the lab's ultra-secure TA-55 on one side and Pajarito Road on the other side, is slated to eventually become the nuclear facility, connected by tunnels to the RLUOB and TA-55. The building is central to the NNSA's Complex Transformation plans and would allow much of the analytical chemistry and material characterization work at the 1950s-era CMR building to shift to a new facility, but it's also been the source of much controversy.

The Obama Administration slowed work on the CMRR project along with other major capital construction work around the weapons complex earlier this year in deference to the Nuclear Posture Review being developed, and there remain questions about how the NNSA will pay for construction of the CMRR-NF along with other big-ticket projects. Slowly, momentum has built for the project in recent months. The NNSA and DNFSB have steadfastly voiced support for the project, and it received an endorsement in May from the Strategic Posture Commission led by former Defense Secretary William Perry. The lab's project director told *NW&M Monitor* earlier this month that he is gearing up for construction to begin on the nuclear facility in 2011. The facility wouldn't be ready to open until 2020 at the earliest under such a schedule. "I am gearing my team in anticipation that sometime in 2011 the customer is going to say I want you to start construction," said Rick Holmes, the lab's division leader in charge of the project. "… If they want us to be there, that's great. That's the earliest I think we could do it. If they say, 'Oh, not just yet,' we're ready to do it anyway."

While Obama has made a push for a world free of nuclear weapons part of his nonproliferation agenda, he has also promised to maintain the nation's nuclear deterrent for as long as nuclear weapons exist, and there's been speculation that an upgrade to the nation's nuclear weapons infrastructure is necessary. The upgrades, largely outlined in the Bush Administration's Complex Transformation plans, would help maintain the nation's nuclear deterrent and help with some of Obama's other nonproliferation initiatives, like pushing for Senate ratification of the Comprehensive Test-Ban Treaty. "Everything that is coming out from the NPR is that it's going to say, 'Well, you're going to need nuclear weapons for a while,' " Holmes said. "Even if the decision is that we'll be more deterrent-based, you still need a nuclear facility because it is the engine for the proof that what you still have is good and if you do make something, what you've made is good."

NNSA Commits to Changes

In all, the NNSA addressed seven DNFSB findings, the most significant of which dealt with the ability of the nuclear facility to withstand a Performance Category 3-level earthquake and the ability to design safety class systems (including ventilation systems) that could meet PC-3 seismic standards. The NNSA hadn't planned to design the active confinement ventilation system to meet PC-3 standards because it wasn't "economically feasible," according to a Jan. 16 DNFSB report, but Mansfield said the NNSA agreed to all of the DNFSB's proposed modifications, revising their structural design criteria and structural design plan and agreeing to design the active confinement ventilation system to PC-3 standards. "Not everything is done yet but DOE understands what it has to do and is committed to do it and is willing to say so," Mansfield said. The NNSA also addressed issues with the preliminary Documented Safety Analysis, among other issues.

Project officials also redesigned the project with a 10-foot concrete and reinforcement bar basemat as opposed to a five-foot basemat to provide more support for the facility and agreed to treat 40 feet of soil beneath the basemat to add stability, according Holmes. In all, Holmes said approximately 20,000 cubic yards of concrete were added to the project, but the basic mission of the facility hasn't changed, and Holmes said many of the changes won't be outwardly noticeable. "If you saw a drawing of the nuclear facility before, it looks very much the same as it does now," he said.

Lab Official: Process 'Good for the Project'

Holmes said the money that has been withheld from the project hasn't adversely impacted the schedule of work on the RLUOB or the nuclear facility. "We are able to allocate funds depending on where we are in our work pace between supporting work on the rad-lab and then sustaining activities on the nuclear facility," Holmes said. "It's going to cause us to get some money just in time. It didn't hurt much in terms of timing of things. We might've been a little bit faster in some areas but it's OK."

Holmes also expected the design certification process, as rigorous as it was, to reap benefits in the future. He said it's not often that the DNFSB and project officials are in sync on potential design issues so early in a project. "Even though there were not a whole lot of physical changes, I think there is a higher degree of confidence in what we're going to do and what we're going to go build as a result of

the Defense Board and NNSA certification process," Holmes said. "I'm not sure if other projects are going to have go do that or not, and it really took a lot of work to get there, but we're in really good position going forward. I think it will be good for the project and the program as a whole." Mansfield agreed. "I believe it will be more successful," he said. "We would've discovered some of these things too late to fix without spending a lot of money."

—Todd Jacobson

NNSA: NEW FOGBANK IS 'AS GOOD AS, IF NOT BETTER' THAN ORIGINAL

Agency Releases FAQ on Mysterious Material that Delayed W76 Refurbishment

Addressing concerns that it lost the recipe for an exotic material used in nuclear warheads and might be better off using an alternative in its warhead refurbishment program, a National Nuclear Security Administration document released earlier this month defends the agency's use of the re-constituted Fogbank, saying that it's "as good as, if not better than, the original product." The NNSA's struggle to produce Fogbank at the Y-12 National Security Complex has been linked to delays in the W76 warhead refurbishment program, and while the NNSA plans to deliver the first refurbished W76 to the Navy this fall, the mysterious material has been the continued subject of scrutiny from Congress, nuclear weapons experts and the Government Accountability Office, which charged the agency with forgetting how to make the material in a report released earlier this year.

After previously saying very little about the classified material—and an alternative that it produced, but has not used, when problems recreating Fogbank arose—the NNSA released a draft version of responses to "frequently asked questions" earlier this month in an attempt to quell some of the conjecture and speculation about the material. "The newly produced Fogbank has been demonstrated to achieve its design requirements," the agency said in the document. "The Fogbank being produced today is as good as, if not better than, the original product."

The exact nature of Fogbank, believed to be an interstage material used to transfer energy between a warhead's primary and secondary, remains a mystery, however, as the NNSA did not shed light on its use or composition. It did acknowledge that Fogbank is used in other warheads beyond the W76, which nuclear weapons experts believe to be the W78 and W80 warheads. "Fogbank is a material used in some of the nuclear weapons in the U.S. stockpile," the agency said. "NNSA cannot comment on what Fogbank is or what it is used for due to the classified and sensitive nature of this issue. NNSA is currently using Fogbank in the refurbishment of the W76."

Door Open for Future Use of Fogbank Alternative

As recently as this summer, the Senate Armed Services Committee asked the NNSA as part of its version of the Fiscal Year 2010 Defense Authorization Act to review its decision not to use a Fogbank substitute that it developed in the W76 warhead refurbishment program (*NW&M Monitor*, Vol. 13 No. 29). According to the committee, the alternative material would have "simplified future life extensions and long-term maintenance" of the nuclear weapons stockpile. The NNSA has briefed committee staff on the issue, but has not delivered a report, as requested. In the FAQs released earlier this month, the NNSA defended its use of the original material, however. "Both NNSA and the U.S. Navy would prefer to maintain consistency across the stockpile of W76 warheads," the NNSA said. Nonetheless, the NNSA is planning to certify the alternate material by the end of Fiscal Year 2009. "Since taxpayer resources were invested to produce this alternative, and to hedge against future contingencies, NNSA is still working to certify the alternative material by the end of FY 2009," the agency said. "But NNSA will continue to use Fogbank and does not need a replacement for Fogbank."

The agency did not rule out using the alternate material in the future, however. "Decisions about future [life extension programs] will be made on a case-by-case basis as determined by the technical requirements for the individual system," the agency said.

NNSA Denies Losing Fogbank 'Recipe'

The Government Accountability Office revealed in a report earlier this year that the NNSA had considered replacing Fogbank with an alternate material as early as 2000, but did not pursue the idea because it was confident it could produce the legacy material because it had done so before and because the agency's modeling and simulation capabilities were not as mature as they are today. After producing Fogbank became more difficult than expected—the NNSA forgot how to make the material, according to the March GAO report—the agency changed its mind and embarked on a $23 million effort to produce an alternate material in March of 2007.

It ultimately was able to recreate Fogbank after marshaling resources from across the weapons complex and chose to use it rather than the alternate material in the W76 refurbishment program. The agency denied that it ever forgot or lost the recipe to making the material after production of Fogbank ended and the Fogbank production facility was dismantled in the early 1990s. "NNSA experienced the sort