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extension programs much like what is allowed for in the Stockpile Management Program. “They said decisions about how to maintain the stockpile should be made on a warhead-by-warhead basis,” Kimball said. “This budget provides the resources, the facilities, and the expertise to do exactly that. There’s absolutely no technical case for building a new generation of new design warheads to maintain the reliability of the arsenal.”

The request fully supports two multi-billion-dollar construction projects that the Republicans had called for—the Uranium Processing Facility planned for the Y-12 National Security Complex and the Chemistry and Metallurgy Research Replacement-Nuclear Facility planned for Los Alamos National Laboratory—and directs a \$392.5 million funding boost to the agency’s Directed Stockpile Work to support the W76 and B61 life extension programs and a study on refurbishing the W78 nuclear warhead. The weapons program budget would grow to \$7.65 billion by FY2015, according to outyear budget projections included in the budget submission.

### **‘A Big Lollipop for the Conservatives’**

While some critics of the NNSA’s modernization efforts lambasted the request, with the Los Alamos Study Group’s Greg Mello calling it a “complete surrender to Senate Republicans,” nuclear weapons observers said the request should be enough to placate the GOP bloc. “It’s a big lollipop for the conservatives in Congress,” said Hans Kristensen, the director of the Federation of American Scientists’ Nuclear Information Project. “It sort of clearly illustrates the concern about their ability to block progress on START.”

The treaty is expected to include modest cuts to the strategic deployed stockpiles of both countries, capping U.S. and Russian arsenals at 1,600 warheads—down from the 1,700-2,200 range allowed by the 2002 Moscow Treaty. “START, as I now understand it, is a good idea on its own merits,” former NNSA Administrator and START negotiator Linton Brooks told *NW&M Monitor*, “but I think for those who think it’s only a good idea if you only have a strong weapons program, I think this budget ought to take care of that.”

### **‘I Would’ve Killed for this Kind of Budget’**

Brooks lamented that previous NNSA budgets, including those during his time at the helm of the agency, didn’t include as much funding, putting the Obama Administration in the position to make up for years of inattention. “Coupled with the out-year projections, it takes care of the concerns about the complex and it does very good things about the stockpile and it should keep the labs healthy,”

Brooks said. “No organization in the history of government has said, ‘Oh gee, I got too much money.’ I’m sure somebody can find something they wish was in there but I would’ve killed for this kind of budget.”

Kimball said the budget gives the NNSA enough resources to maintain the stockpile without testing and said it should bolster the Administration’s case for not only the START replacement, but in its push for Senate ratification of the Comprehensive Test-Ban Treaty. “Whether the 41 senators wrote this letter or not, the Administration was heading toward this plan,” Kimball said. “And the plan should end the debate about whether there are enough resources being provided to the nuclear weapons complex to maintain the stockpile without testing, and without developing new design warheads, and even without the additional resources. There is plenty of proof that nuclear testing is a thing of the past and the stockpile is safe, secure and reliable. Let’s get on with making some progress.”

—Todd Jacobson

### **DOE PUSHES QUICK CHANGES TO DEAL WITH LANL SEISMIC ISSUE**

The Department of Energy is reviewing a new safety analysis done by Los Alamos National Laboratory on its main plutonium facility, PF-4, and believes steps already taken have reduced 15-fold the calculated radiation dose in a worst-case accident scenario, according to a Feb. 2 letter from Energy Secretary Steven Chu to the Defense Nuclear Facilities Safety Board. The revised dose estimate to a maximally exposed individual off site is still above the evaluation guideline for safety-class systems under Department of Energy regulations, but it is significantly improved from the situation in October when the DNFSB sent a scathing letter to Chu complaining about the accident risks at the Los Alamos facility.

According to the Board’s October recommendation (*NW&M Monitor*, Vol. 13 No. 44), the risk stemming from a postulated worst-case earthquake, which could both lead to loss of containment as well as a fire in gloveboxes containing plutonium, would create a risk of off-site radiation exposures “two orders of magnitude” above safety guidelines.

### **Earthquake Risk Revised**

PF-4 was built in the late 1970s at the lab’s Technical Area 55. When it was built, the facility met seismic standards, but recent studies revealed a significantly increased risk of major earthquakes at Los Alamos, which is built atop a volcanic plateau crisscrossed by active faults. A lab study found that the area has experienced two or three major

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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 PF-4 and also maintenance of the old Chemistry and Metallurgy Research building (CMR) and the design of its replacement.

In addition to the health risks to exposed members of the public, a major accident also could render large areas of the lab and

surrounding community uninhabitable, said Greg Mello of the Los Alamos Study Group, an activist organization that has long been critical of seismic risk problems at the lab.

### At-Risk Materials Reduced

Key to the near-term risk reduction has been a decrease in the amount of nuclear materials in the areas of PF-4 at risk and strict limits on various forms of nuclear material such as liquid, metal and an oxide used in the lab's work developing heat source plutonium, according to Chu's letter. But the letter makes clear that substantial additional upgrades, with possible steep price tags, will be needed to meet DOE safety guidelines. Among the steps being contemplated is the shift to active confinement ventilation and an upgrade to safety-class fire suppression, but a Dec. 18 letter from Los Alamos Site Office Manager Donald Winchell to lab contractor Los Alamos National Security, LLC, obtained by *NW&M Monitor* suggests that it may not be necessary to upgrade both areas. "It may be quicker, and thus preferred, to focus on safety-class seismic qualification of one system, probably fire suppression, instead of spreading efforts over two systems," Winchell wrote.

NNSA and lab officials declined comment. In the past, they have not speculated publicly about how much the upgrades might cost, but industry officials believe the pricetag could be in the hundreds of millions of dollars. DNFSB Vice Chairman John Mansfield told *NW&M Monitor* that the Board was pleased with the Department's initial response to its recommendation, but he emphasized that significant work still needs to be performed. "They've always thought it was very expensive but they never really looked," Mansfield said. "This is their chance to do the problem right and find out what it will cost. ... I see every sign that the Administration wants to invest money to make this facility safe."

### Additional Investments on the Way

In the near term, the NNSA has allocated an additional \$6.7 million for work at the lab in the current fiscal year, according to Chu's letter. Of that, \$6 million is being spent on material repackaging, and \$700,000 is going to development of new nuclear material containers. The Adminis-

tration also requested \$20 million in FY2011 for upgrades to the Plutonium Facility through phase two of the TA-55 Reinvestment Project. Steps also taken include:

- Repackaging of 60 containers of plutonium-238, the isotope used for electricity-generating heat sources for space missions and other applications;
- Replacement of 195 high efficiency particulate filters (HEPA) with new models rated for higher temperatures to protect in fire scenarios;
- Relocation of the forklift charging station, which was seen as a possible fire ignition source; and
- Removal of 11 tons of combustible materials, primarily from first floor labs.

Additional work planned for the current fiscal year includes:

- Installation of an automatic seismic shutdown system for non-vital electrical systems, to reduce ignition source risk;
- Speeding up seismic upgrades to 90 glovebox stands, with emphasis on those containing possible ignition sources such as furnaces; and
- Surveillance and repair of fire walls.

The letter makes clear that many of the steps being taken are being built into the incentives in Los Alamos National Security LLC's lab management contract.

—Todd Jacobson and staff reports

## NNSA OFFICIALS DEFEND FUNDING DECREASE FOR DISMANTLEMENT WORK

National Nuclear Security Administration officials last week defended a 39.6 percent funding reduction for nuclear weapons dismantlement in the Obama Administration's Fiscal Year 2011 budget request, saying that the work to take apart warheads that have been retired from the weapons stockpile would continue to be accelerated and meet requirements despite the cut. The Administration's \$58.0 million request for dismantlements was \$38.1 million less than the \$96.1 million provided by Congress for the work in FY2010, but NNSA officials say those numbers don't tell the whole story.

In a budget briefing with reporters last week, NNSA Administrator Tom D'Agostino and Brig. Gen. Garrett Harencak, the NNSA's Principal Assistant Deputy Administrator for Military Application, said a one-time boost to the agency's dismantlement work in FY2010 and investments in new processes and technology have allowed the agency to dismantle weapons with greater efficiency than