August 20, 2012

To: Members of the Defense Nuclear Facilities Safety Board (DNFSB, Board), in care of Mr. Tim

Dwyer, Staff Technical Director

From: Greg Mello, Los Alamos Study Group

Re: Thank you for August 13 meeting; selected issues that might need clarification

Dear Mr. Dwyer and Members of the Board –

Thank you for the opportunity to discuss some of the current safety issues at Los Alamos National Laboratory (LANL) last Monday. We found the meeting interesting and useful and as always we are very thankful for the existence, professionalism, and diligence of the Board.

There are a couple of issues I thought might benefit from emphasis or clarification.

The first concerns the interrelationship of mission, money, and safety. Last Monday you heard from me a short discourse on the dangers of assuming there will be enough money to buy the safety of what are increasingly being viewed, and are virtually certain to be viewed in the future, as grandiose projects. I have been warning the Board about this for some years now. As we see in the case of the Chemistry and Metallurgy Research (CMR) building and the two Chemistry and Metallurgy Research Replacement (CMRR) buildings, a grandiose plan (which was justified in the name of "safety") led to *lowered* safety by pulling management attention and huge financial resources away from simpler and more practical solutions. Without sufficient insight and oversight, we can expect this pattern to continue.

This pattern could easily develop in the case of PF-4, for example. A few parties, mostly those with financial interest in doing so, want to replace this building, at LANL or elsewhere. Like the Board, I am concerned about the *completion* of building safety features at the *present* facility.

I am not sure that the Board's concerns are communicating well the need to *promptly* achieve a high degree of built-in safety in this facility. Will this safety, like safe, efficient, PF-4 vault management, require a quarter-century to achieve? (I am measuring from Board Recommendation 94-1 to the currently-expected completion date of "vault cleanout.")

I fear that the Board's concerns at PF-4, evolving as they are as new data becomes available, could play into the hands of those who would *delay* the acquisition of engineered safety at PF-4. Improved safety could fall, as it did in the case of CMR/CMRR, between the dock and the boat.

This concern is related to the Department of Energy's (DOE's) usual contractor-driven "quest for perfection," in which the hypothetical *perfect* – theoretically attainable in the distant future under a suite of optimistic assumptions which are usually mistaken – becomes the enemy of the near-term *good*. "Why, given the resources of this great country," one LANL scientist asks another in an old cartoon, "must the answer be that simple?"

In the coming five years we will see ever-more constrained resources everywhere, and the context of DOE's safety and security decisions will change. For example, we believe consumer inflation is inaccurately calculated and reported, with the result that real economic growth in the developed countries, taken together, has already ceased. For reasons beyond the scope of this letter, we think this is a permanent, worsening condition. But you don't have to believe this much to see the worsening, increasingly high-stakes, budgetary situation and political gridlock in Washington.

This changing framework for safety and security includes decisions about plutonium disposition. The old miner who told Mr. Bader that whatever he (Bader, or DOE) could bury, he (the miner) could dig right back up was colorful, but his message must be heard only in balance with fiscal and other security and safety considerations. It would be much easier for malevolent actors to cause widespread harm during plutonium processing, MOX fuel fabrication, or the operation of MOX-burning reactors than it would for terrorist-miners to dig up plutonium from deep underground to cause harm. *No* above-ground nuclear facility can ever be safe from attack from the air, for example. As von Hippel, Macfarlane, Ewing, and Garwin recently wrote, "It is time to bury plutonium."

Picking up another theme, I think there is a danger of giving excessive credence to some of the political theater being offered by some members of the armed services committees and the election-fevered New Mexico congressional delegation regarding the CMRR Nuclear Facility (CMRR-NF).

Like it or not, I believe the Board must learn to probe the realism of proposed missions and facilities insofar as the quest for new projects, capital and otherwise, impedes the near-term acquisition of greater safety, and clouds sound planning. To quote Mr. Thoreau, "Take the cash and let the credit go."

In these matters, the current M&O contractor at LANL, Los Alamos National Security (LANS), is not a sound source of reliable information. Much of the information provided by DOE and the National Nuclear Security Administration (NNSA) is just second-hand LANS information.

An example is the supposed "need" for a new tunnel connecting the Radiological, Utility, and Office Building (RLUOB) to PF-4. I did not hear any convincing rationale for this tunnel when I asked you about it. The most accurate remark seemed to be that it would increase efficiency of operations, but that begs the question, "Under what operating assumptions?" It is habitual for LANS, through its highly-incentivized corporate spokespersons like Dr. McMillan, to incorporate *its own proposed future national policies* into the "needs" LANS tells you about. In this case, certain pit production requirements are assumed, when in fact there are no such requirements as DoD has testified (*contra* McMillan). (This is discussed in our letter to Chairman Levin and other parties, Concerns regarding CMRR-NF in the FY2013 National Defense Authorization Act (NDAA) as reported in the Senate, Jul 16, 2012).

I saw \$765 million (M) in proposed expenses in the LANS-generated CMRR-NF "Plan B" but I did not see a single dime for seismically-qualified gloveboxes or a seismic-qualified ventilation system at PF-4.

Finally, I wanted to mention that we are hearing of no significant pushback from LANL about the indefinite deferral of CMRR-NF. I suggest that absence of any CMRR-NF plan in the Ventura and Leasure briefings in the 2013-2024 timeframe speaks to a degree of comfort regarding the demise of CMRR-NF. Under present budgetary conditions construction of CMRR-NF would likely entail drastic program and staff cutbacks at LANL, which I am sure LANS wants to avoid.

Best wishes to all of you. We will continue to do what we can to ensure the continued independence and effectiveness of the Board.

Sincerely,

Greg Mello, for the Los Alamos Study Group