



Los Alamos Study Group

Nuclear Disarmament • Environmental Protection • Social Justice • Economic Sustainability

Brief Comments on the “Report on the Feasibility of Using Existing Pits for the Reliable Replacement Warhead [RRW] Program,” National Nuclear Security Administration (NNSA), circa August 2008

Greg Mello, Los Alamos Study Group, 9/5/08

This report came to us without any reference to specific authorship, and without a date. I believe it is important to foster a culture of accountability at NNSA and its contractors and hope specific authorship was supplied to Congress. If this lack of attribution is present in all copies of the report it should be corrected – and made habitual. It is not clear who the peer reviewers were, if any.

The report begins with a recitation of the congressional requirement (Section 3121 of the Defense Authorization Act for Fiscal Year 2008, P.L. 110-181). The congressional requirement calls for an unclassified report on the results of the study that includes a) an assessment of the results by the National Nuclear Security Administration (NNSA) administrator and may include b) a classified appendix.

What has been submitted appears to be only the assessment, not the underlying report. There are no data, no references, and no measured evaluation, only conclusions. Was any report actually submitted? The quality of this particular submittal is low.

It is not at all clear why the congressional authors of the requirement for this report saw fit to largely confine the study of pit reuse to the RRW program. This is illogical, circular, and all by itself this problem makes this report largely useless.

It is probably better to move on than try to demand a better version of this report.

By the time this act was passed, the lack of congressional support for RRW was evident. Many concerns were coming from diverse parties about this program. It was very clear to many of us that the RRW program could never meet congressional requirements, and these requirements were themselves contradictory and otherwise poorly posed. Why, then, tie a study of pit reuse to a dying program? Congress had at the time already de-funded RRW once. By this summer Congress has twice failed to fund the program.

A major stated purpose of the RRW program was to exercise and develop the capabilities of the weapons complex, including pit production. The RRW was to be a program centrally defined by its pit production; the contrasting method of maintaining nuclear weapons is through Life Extension Programs (LEPs), which do not involve pit production though they conceivably might involve pit reuse as we have learned.

Thus the RRW program goals set by Congress were to be met by a suite of activities that explicitly and fundamentally included pit production. Why would it make sense to evaluate pit reuse, i.e. pit non-production, with respect to a set of goals crafted to involve and support pit production?

If existing pits were reused in an “RRW program,” would that by definition create an “RRW?” Or would such a program also be described, perhaps better, as an LEP? Could an “LEP” be an “RRW,” or vice versa? What distinguishes the two?

It has long been apparent that there is spectrum of possible interventions during nuclear weapons maintenance operations. “LEP” has always been a very plastic term, under the aegis of which a greater or lesser numbers of components and properties of warheads and bombs could be changed. Together with changes in accuracy, targeting, doctrine, and command and control, the aggregate change in nuclear capability could be, and is, considerable. Just the change in military characteristics (MCs) alone could be considerable.

A case in point is the change that is occurring between the W76-0 (as it is now called) and the W76-1 LEP product. I discussed some of these planned changes in military characteristics eight years ago.¹ Not long afterward a highly-knowledgeable source remarked to me that under LEPs everything could be, and likely would be, changed – except the warhead number.

The wide spectrum of possibilities underlying the RRW and LEP concepts make a mockery of the present report. Poor definitions – these and others – are also partly responsible for the evasive construction of many of its assessments.

In this regard, there was an interesting and important, though truncated, verbal exchange regarding the nature of the LEP program between Marylia Kelly and Chairwoman Tauscher during the 7/18/08 House Armed Services Strategic Forces Subcommittee hearing. Ms. Tauscher argued that LEPs were simply another name for the “curatorship” activities and philosophy advocated by Ms. Kelly. Ms. Tauscher was wrong; curatorship is an approach to LEPs, a subset of the full range of LEP possibilities.

These definitional problems are far from trivial and are of a piece with other logical problems in the report. Overall, they help lead to an absence of particular meaning in this report. Very few sentences in this report have any precise meaning. This “weasely,” evasive quality has come to be the norm in congressional communications regarding all aspects of the stockpile stewardship (SS) program. Congress is largely getting sales pitches from NNSA, and I suspect NNSA is largely getting sales pitches from its labs.

This carefully-constructed absence of meaning, building upon misconceived terms of reference on the one hand and an absence of clear definitions on the other drains the remaining value from this report.

NNSA has strong bureaucratic imperatives and ideological commitments to promote nuclear weapons programs, an interest that is served by grossly exaggerating uncertainty about the stockpile, suppressing rationality in dealing with it, and promoting programs that will allow and indeed depend upon stockpile innovation.

It is not polite to say so but Chairwoman Tauscher as well as the privatized operators of the design laboratories and production plants have material interests that are served by the confusion to be found in this report and so many others like it. However blameless she may be, Congresswoman Tauscher cannot avoid signaling that she would like Lawrence Livermore National Laboratory (LLNL) to have a well-funded nuclear weapons program unless she definitively and explicitly were to demand more searching analysis and reform.

¹ Greg Mello, “That Old Designing Fever,” *Bulletin of the Atomic Scientists*, Jan/Feb 2000, http://www.lasg.org/DesigningFever.pdf?art_ofn=jf00mello.

If on the other hand we begin with the unstated assumption that the design labs – especially the two physics labs with their excessive and largely redundant capabilities – will remain at their present scale, or with the assumption that pit production is necessary even though we might allow some pit reuse in selected cases, or with the assumption that the congressional objectives of the RRW program were sound even though their expression in an actual warhead has been found wanting, what is the use of this report?

To take another example, what does “surety” mean and how do we know when it is increasing or decreasing? At one time this concept was defined as the sum of “safety” and “security,” themselves ambiguous, but now I fear it has taken on a purely technological quality and refers only to the warheads themselves as devices. In nuclear weapons policy usage “surety” now seems to refer to certain technical properties of warheads and bombs, as if it were solely a property of these devices instead of a property of these objects in their total human, institutional, and political environment. “Surety,” an endlessly receding mirage when it comes to nuclear weapons and therefore a potentially endless source of federal appropriations, is harnessed in this way to the financial interests of the design labs on the one hand and to the broader and deeper desire for innovation in nuclear weapons on the other.

This desire for innovation is fundamental, and protean in the sense that it historically it has changed shape in accordance with political opportunities. There have always been “compelling” reasons for nuclear weapons innovation, although these reasons have changed. Yesterday’s “compelling” reasons are passé today; today’s “compelling” reasons – often little more than recycled arguments from a more distant past – are likely to be passé tomorrow. New arguments referencing new political fictions will take their place.

This is very much how we have arrived at today’s unbalanced emphasis on “nuclear surety,” which implicitly references terrorist “threats” that have been primarily constructed for propaganda purposes. If these threats were really of central concern as regards nuclear weapons, far more extensive physical security measures would be put in place. “Surety” is only convenient as a concept when it helps uphold spending in the design labs or can be used as a driver for multi-billion-dollar facilities.

To “solve” nonexistent “surety” “problems,” billions of dollars will be spent unnecessarily. All the while, well-meaning congressional staff and public servants in the executive branch will gradually grow old, gradually becoming accustomed to various received nuclear dogmas. These well-meaning actors will then retire as other more junior ones take their places. In the end no real progress will have been made in “solving” the “problem” of nuclear surety because the “problem” was always just a way to give the design labs something to do for which they could be handsomely paid. There never was any serious attempt to address the “problem” in a rational manner, or to figure out if there was a problem in the first place. This need not be the outcome of this discussion, but this is the track on which it is proceeding.