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U.S. HOUSE OF REPRESENTATIVES
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February 8, 1992

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The Honorable James D. Watkins
 Secretary
 Department of Energy
 Washington, D.C. 20585

Dear Mr. Secretary:

I am writing to provide comments on the draft report of the Secretary of Energy Advisory Board (SEAB) Task Force on the Department of Energy National Laboratories.

(Text)

I am writing to provide comments on the draft report of the secretary of Energy Advisory Board (SEAB) Task Force on the Department of Energy National Laboratories.

At the outset, let me commend you for having initiated a process to receive advice about the future of the Department of Energy (DOE) laboratories. The DOE laboratories have supported many of the world's greatest scientists and have served this nation well over the past 40 years. However, with the dissolution of the Soviet Union and end of the Cold War, the mission of the DOE laboratories -- particularly the nuclear weapons labs -- is now uncertain.

In chartering this Task Force, you asked it to "define a strategic vision for the National Laboratories... to guide them over the next 20 years." Although the draft report contains some useful recommendations that could improve the management and output of the DOE laboratories, I see very little in the document that is either strategic or visionary. In fact, in light of recent developments between the United States and the Commonwealth of Independent States, I feel that much of this report has been rendered obsolete before it has even been formally issued.

In my view, the panel by-and-large dodged its central task by asserting that a new vision for the DOE national laboratories "cannot be developed until the Department (of Energy) and Nation have developed a similarly clear vision of their role in the future multipolar world." Rather than proposing a strategic plan of its own, the Task Force recommends that DOE and the laboratories develop the strategic plan themselves, and then present the President with options about what the DOE national laboratories should be doing in the emerging world order.

The Task Force thus recommends that we defer until another day decisions that might fundamentally alter the missions of the DOE laboratories. Although this may have seemed like a reasonable proposition a year or two ago, when there existed considerable uncertainty about the future direction of U.S. - Soviet relations, such a view today is insufficient and shortsighted. Given the revolutionary transformation in world affairs, this is not a time to be timid in our reassessment of our role in the world, or in our redirection of the organizations that helped this nation win the Cold War.

The central issue addressed by the Task Force, and the issue most in need of attention, is what to do about the nation's three nuclear weapons laboratories (Los Alamos, Lawrence Livermore, and Sandia) now that they have fulfilled their primary mission. The Terms of Reference called upon the Task Force to develop a strategic vision for the DOE laboratories, with special emphasis on national defense, economic competitiveness, energy security, scientific and technological education, and environmental protection considerations. The document that has been drafted, however, really addresses only the first of these considerations: national defense.

In the view of the SEAB Task Force, the continued development of nuclear defense technologies is to remain the "primary mission" for the future of the nuclear weapons laboratories. A "coherent" nuclear weapons RDT&E program is identified as the 'core activity for the weapons labs. In addition, the Task Force recommends increased activities in areas such as verification, arms control, non-proliferation, intelligence assessments, and environmental remediation. Although these recommendations include several interesting suggestions, the Task Force essentially prescribes a status quo plan for the defense labs. In my view, this is not what you requested in calling for a "strategic vision," it is not sustainable in light of the declining need for additional nuclear weapons design and development work, and it is not what the country needs.

A whole host of important issues contained in the Terms of Reference appear to have been entirely neglected by the Task Force. The panel was asked to examine the ability of the DOE labs to help U.S. industries important to national defense but targeted by overseas competition, to undertake directed applied R&D for companies, and to establish new relationships with start-up firms or industrial suppliers of advanced research instrumentation. None of these matters were given serious attention.

Regarding the role of the DOE laboratories in contributing to our economic position in the world, the Task Force Report is decidedly negative, stating that "The Task Force does not advocate the position that the DOE laboratories have a National 'economic competitiveness' mission." If one listens to the directors of the three weapons labs, however, one hears a chorus of claims that economic competitiveness is a major emerging mission. They also point to areas such as energy, environmental protection, health care, civilian space, education, and anti-terrorism as fields in which they have competence, if not an established mission.

Herein lies the problem: the end of the Cold War has left the DOE weapons labs scrambling to define new missions for themselves, yet they are all reaching for the same new missions. The Task Force report was intended to help resolve this confusion, yet it fails to do so in that it skirts a fundamental question which must be addressed: With the end of the Cold War, do we still need three nuclear weapons labs, each funded at approximately one billion dollars per year and each with employment of about 8,000 people? The Task Force provides a "yes" answer, without actually posing the question. It seems to me, however, that the more strategic and visionary answer is "no."

The nation no longer needs three nuclear weapons labs, all of which are trying desperately to retain as much of their defense activity as possible, while also diversifying feverishly toward civilian missions. Although the Task Force identifies the "loss of coherence and focus" as a problem at the weapons labs as they have sought to broaden their missions, its prescription of continued nuclear defense work as the core mission of all three labs will simply perpetuate this loss of coherence and focus. Why? Because there isn't likely to be enough defense funding to sustain the three labs at their current levels, and thus they will feel compelled to extend their reach in all conceivable directions for additional funding.

A better solution -- for the labs and for the nation -- would seem to be found in a plan that gave the existing weapons labs three distinct missions. Specifically, my proposal, for your consideration, would be the following:

1) Consolidate all nuclear defense and nuclear non-proliferation work at Los Alamos. Through a gradual transfer lasting perhaps three to five years, all nuclear design, ballistic missile defense, and other classified defense activities currently at Lawrence Livermore would be terminated or transferred to Los Alamos, which would become the Los Alamos National Defense Laboratory. Nuclear weapons production activity, albeit at low production rates, could also be supported by existing Los Alamos facilities.

2) Establish Lawrence Livermore as a civilian technology lab. Building on strengths at the lab in materials science, fusion, computational science, environmental remediation, and biotechnology, create a new, entirely civilian mission for Lawrence Livermore, with particular emphasis on building consortia with industry and academia in areas of critical technologies and environmental technologies. The lab could be renamed the Lawrence Livermore National Critical Technologies Laboratory.

3) Concentrate verification activities at Sandia National Laboratory in addition to making Sandia a "center of excellence" for technology transfer. Sandia's current primary role of engineering the non-nuclear components of nuclear systems will remain essential for as long as the U.S. maintains a nuclear arsenal, yet Sandia's engineering strengths also could be put to use to develop the range of verification and monitoring systems necessary for our future security needs. In addition, Sandia has established strengths in areas such as manufacturing technologies, microelectronics, high-performance computing, and systems engineering. In many of these areas, Sandia has succeeded in its technology transfer activities, and thus the Task Force recommendation that Sandia become a technology transfer "center of excellence" is a good one.

4) Reduce the DOE nuclear weapons research, development, and testing budget by 20 percent per year over the next four years, which would free up a total of more than \$1.5 billion that could be directed toward civilian technology investments. If the existing three DOE weapons labs were pared down to one and one-half weapons labs (Los Alamos and half of Sandia), then the annual nuclear weapons RDT&E budget of nearly two billion per year could be cut in half. The money saved could be directed toward civilian technology programs within DOE's laboratory system, while the remaining budget would be more than sufficient to retain U.S. nuclear weapons competence - which will be an essential national security safeguard.

5) Announce a planned cessation of nuclear tests in three years. The driving rationale for downsizing the DOE weapons lab infrastructure is that the nation has a vanishing need for additional nuclear weapons development and testing activity. With the recent cancellations of several nuclear warhead programs, the U.S. currently has no new nuclear warheads in the pipeline -- and none are expected.

As such, the only critical nuclear warhead work that remains undone (and it is all being done at Los Alamos) is redesign activity aimed at enhancing the safety of the existing nuclear stockpile. A total of ten tests over the next three years is probably all that are necessary to validate these safety improvements, which would enable the U.S. to terminate nuclear tests prior to the 1995 review conference of the Nuclear Non-Proliferation Treaty. Such action would strengthen the U.S. position as it seeks to curb nuclear proliferation. Russia, which last conducted a nuclear test in October 1990, no longer has a nuclear test site at Kazakstan, and Russian President Boris Yeltsin has called for the cessation of nuclear testing.

I recognize that the elements of this proposal include two taboos in the minds of any DOE officials: removal of one of the DOE National Laboratories from the nuclear weapons business, and support for a nuclear test ban. I would suggest, however, that these taboos, while marginally defensible during the Cold War, have now become obstacles in the way of clear thinking about the proper course for the DOE laboratories.

The economic stature of this nation is in systemic decline. There is much that the scientific and technological resources contained within the DOE laboratories could do to help stem and reverse this decline. Tapping those resources -- which represent a vital national asset -- will take "strategic vision," as you called for from your Task Force on the DOE National Laboratories. What has been offered up to you in the draft report, however, falls far short of what you need. My sincere hope is that you will ask for something better.

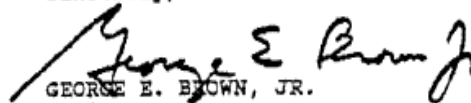
Sincerely,

George E. Brown

Chairman of the U.S. House of Representatives
Committee on Science, Space, and Technology

I recognize that the elements of this proposal include two taboos in the minds of many DOE officials: removal of one of the DOE National Laboratories from the nuclear weapons business, and support for a nuclear test ban. I would suggest, however, that these taboos, while marginally defensible during the Cold War, have now become obstacles in the way of clear thinking about the proper course for the DOE laboratories. The economic stature of this nation is in systemic decline. There is much that the scientific and technological resources contained within the DOE laboratories could do to help stem and reverse this decline. Tapping those resources--which represent a vital national asset--will take "strategic vision," as you called for from your Task Force on the DOE National Laboratories. What has been offered up to you in the draft report, however, falls far short of what you need. My sincere hope is that you will ask for something better.

Sincerely,


GEORGE E. BROWN, JR.
Chairman