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April 22, 2002

The Honorable George W. Bush  
The White House  
1600 Pennsylvania Ave.  
Washington, DC 20500

Dear President Bush:

I am writing to express my deep concerns regarding the adequacy of safeguards and security at Department of Energy (DOE) nuclear facilities. In particular, I was shocked to hear that the White House Office of Management and Budget (OMB) chose not to approve DOE's supplemental funding request to upgrade security at DOE facilities. This inexplicable decision will mean that DOE nuclear weapons facilities, the security of which has come under fire by countless Congressional, Presidential and non-governmental experts for years (see Attachment 1 for a list), will remain vulnerable to a terrorist threat. I am concerned that a successful terrorist attack at one of these facilities could lead to the theft of nuclear weapons-grade materials, the rapid construction and detonation of a radiological dispersion device or "dirty bomb," or the rapid construction and detonation of an improvised nuclear device, or "homemade nuclear bomb" which could kill numerous people and devastate the nearby communities.

Ten DOE sites, some of which are located in urban areas such as Denver Colorado and the Bay Area of California, reportedly contain enough weapons-grade plutonium (reportedly about 7 kg of metallic plutonium and about 10 kg of plutonium oxide would be needed) and highly enriched uranium (reportedly about 25 kg of metallic uranium and about 35 kg of highly enriched uranium oxide would be needed) to build a crude atomic bomb. In addition, the DOE Transportation Security Division regularly transports nuclear weapons materials from site to site within the DOE complex. I am concerned that a group of suicidal terrorists would not bother to attempt to steal nuclear weapons materials from these sites; Instead, they would gain access to the nuclear materials located within them by killing the security guard forces, and, once inside the facility, would construct and detonate dirty bombs or homemade nuclear bombs. Recent press reports have detailed both Al Qaeda members' attempts to obtain nuclear materials as well as their desire to attack U.S. nuclear facilities.

A radiological dispersion device or "dirty bomb" could be created by surrounding nuclear weapons material with conventional explosives and then detonating the conventional explosives. The amount of damage done would depend on the amount of radioactive materials (and how small the particles of those materials were ground) as

well as on the amount of conventional explosives used to detonate the device. Such a device could be constructed quickly once terrorists gained access to the nuclear materials, and could result in deaths, cancer and widespread contamination of the surrounding community.

Even more alarming is the possibility that terrorists could rapidly construct and detonate an improvised nuclear device<sup>1</sup>, or "homemade nuclear bomb," which could achieve criticality and release nuclear yield. Criticality occurs when the minimum amount of fissile nuclear material necessary to cause a chain reaction is brought together, either deliberately or accidentally. The first-ever fatal criticality accident took place at Los Alamos National Laboratory, when a scientist accidentally dropped a metal block near a plutonium sphere and caused a chain reaction to begin, which delivered a fatal dose of radiation before he was able to move the metal block. A recent example of a criticality accident took place in 1999 in Tokaimura, Japan, and delivered fatal doses of radiation to two people and high doses of radiation to others before the chain reaction, which was caused by having too much highly-enriched uranium in a tank, was halted. If, instead of trying to stop the chain reaction, a group of suicidal terrorists tried to accelerate it by confining critical masses of uranium or plutonium, the result could be equivalent to that of a detonation of a nuclear weapon.

In October, 1997 I sent a letter to then-DOE Secretary Federico Pena (Attachment 2) regarding security and safeguards at various DOE facilities that detailed the risk of terrorist attacks and lax security at many DOE facilities, including Rocky Flats near Denver Colorado, Los Alamos National Laboratory, Lawrence Livermore National Laboratory and the Y-12 site at Oak Ridge National Laboratory in Tennessee. My letter cited reports of improper storage of nuclear weapons materials in broken vaults, the possibility that terrorists who gained access to nuclear weapons materials could quickly construct a dirty bomb or crude nuclear weapon that could achieve criticality and produce nuclear yield, reports that anti-government militia groups attempted to recruit members from within the Rocky Flats security guard force, and that DOE reports on Safeguards and Security downplayed and ignored security risks.

Unfortunately, it seems as though little has been done to remedy the security problems identified in my 1997 letter. A September 2001 report entitled U.S. Nuclear Weapons Complex: Security at Risk by the Project on Government Oversight (POGO) described its eight-month investigation that used unclassified documents to establish that nuclear weapons material at DOE sites remains vulnerable to theft or onsite construction and detonation of dirty bombs or homemade nuclear weapons. In particular, the POGO report described repeated failures by DOE contractor security personnel to protect DOE facilities from attack by mock "terrorists" who were testing security, repeated failures by DOE and its contractors to address and correct identified

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<sup>1</sup> According to Department of Defense documentation, an improvised nuclear device is defined as "a device incorporating radioactive materials designed to result in the dispersal of radioactive material or in the formation of a nuclear-yield reaction. Such devices may be fabricated in a completely improvised manner or may be an improvised modification to a U.S. or foreign nuclear weapon."

security problems, and weak and ineffective oversight of security by DOE headquarters personnel. I have reviewed the POGO report and find its conclusions alarming.

On January 23, 2002, I sent a letter to DOE Secretary Abraham (Attachment 3) that requested information about many of the concerns highlighted by the POGO report and other sources, and requested information on a variety of other issues related to security measures taken or planned to be taken in response to the events of September 11<sup>th</sup>. The letter was released at a press conference and received a significant amount of attention. I am still awaiting a response to my letter from the DOE.

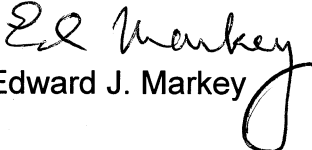
According to a March 28, 2002 letter (Attachment 4) from Bruce M. Carnes of the Chief Financial Officer's office at DOE to Mr. Marcus Peacock, of the White House Office of Management and Budget, DOE Secretary Abraham transmitted a supplemental budget proposal for safeguards and security, emergency response and energy security to OMB director Daniels on March 14, 2002. The Department's transmittal letter reportedly "described the underlying need to increase our response capabilities for emergencies and improve the security posture of [the] Department in order to adequately protect the public, our workers and the environment." The March 28, 2002 letter expressed the DOE's disappointment that its supplemental security request was denied.

The letter went on to state that OMB did not give the DOE the opportunity to discuss its concerns prior to being refused the additional funds, and that OMB reportedly told DOE that the reason for the refusal was that "the revised Design Basis Threat, the document that outlines the basis for physical security measures, has not been completed." However, according to the letter, DOE is "not operating, nor can it operate, under the pre-September 11 Design Basis Threat. Until that is revised, we must operate under Interim Implementing Guidance, and you have not provided resources to enable us to do so."

I am stunned by the apparent failure of the White House Office of Management and Budget to provide sufficient resources to adequately protect this country's nuclear weapons facilities from terrorist attacks. I request your immediate assistance in ensuring that these funds are included in the supplemental budget request, and that you ensure that the security of these facilities becomes and remains a high priority for your Administration.

Thank you for your consideration of this important matter. I look forward to your prompt response. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of my staff at 202-225-2836.

Sincerely,

  
Edward J. Markey