



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

July 31, 2007

The Honorable Samuel L. Bodman
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
By fax: (202) 586-4403

Dear Secretary Bodman:

I am writing in reference to the mixed-oxide (MOX) fuel fabrication facility that is planned for the Savannah River Site (SRS). Construction of the facility is slated to commence on August 1, 2007, in accordance with the FY 2007 Continuing Resolution. It is our understanding that the United States has not placed this facility on the list of those eligible for International Atomic Energy Agency (IAEA) safeguards. The Union of Concerned Scientists (UCS) respectfully requests that you postpone the start of construction of the MOX plant (or cease construction if it has already begun) until 180 days after the U.S. has placed the plant on the IAEA eligible facilities list and has provided the IAEA with the information that it needs to undertake design verification activities and develop a safeguards approach for the facility. The U.S. should also provide a stable source of dedicated funding for the IAEA to carry out this verification mission over the lifetime of the plant.

UCS has long been concerned that unless the U.S.-Russian plan to dispose of surplus weapons-grade plutonium by converting it into MOX fuel is carried out under the highest level of safeguards and security in both nations, it could increase the risk of plutonium being diverted or stolen. In carrying out its part of the agreement, the U.S. has a responsibility to set the gold standard for safeguards and security as an example for Russia and for the rest of the world. Yet DOE has already failed to live up to that responsibility by shutting the IAEA out of the process for developing a safeguards regime for the MOX plant prior to construction.

Under the terms of its safeguards agreement with the IAEA, the United States must permit the Agency to apply safeguards "on all source or special fissionable material in all facilities within the United States, excluding only those facilities associated with activities with direct national security significance to the United States." The MOX plant does not qualify for this national security exemption because the plutonium that it will process is excess to the security needs of the United States and will have been converted to an unclassified form prior to receipt at the facility. Moreover, it has always been DOE's intent to apply IAEA safeguards to surplus plutonium "as soon as it is practical" (Record of Decision on the Surplus Plutonium Disposition Final Environmental Impact Statement, 65 FR 1608, January 11, 2000, footnote 17). It is certainly practical for the IAEA to begin to apply safeguards now, before construction of the facility begins. The IAEA Board of Governors determined in 1992 that the early provision of design information to the IAEA, ideally as soon as construction of a facility is authorized but in practice at least 180 days prior to start of construction, is an important element of a strengthened safeguards system.

By providing the IAEA with the opportunity to develop a safeguards approach for the MOX plant at the design stage, U.S. actions will be consistent with DOE statements. Since introducing the Global Nuclear Energy Partnership (GNEP) program in 2006, DOE has been stressing the importance of "safeguards by

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design.” According to DOE, GNEP will provide “the opportunity to design modern safeguards directly into the planning and building of new nuclear energy systems and fuel cycle facilities. Incorporating safeguards into the design phase for new facilities will allow the International Atomic Energy Agency (IAEA) to monitor and verify nuclear material even more effectively and efficiently. Nuclear technology suppliers will also be able to require the implementation of these enhanced safeguards design elements and work with IAEA to ensure that they are applied in a comprehensive manner” (DOE GNEP fact sheet, “Improving Nuclear Safeguards,” available at www.gnep.gov).

The MOX plant, as a large-capacity plutonium bulk-handling facility (similar to facilities being contemplated under GNEP), could provide DOE with a near-term opportunity to demonstrate this principle of “safeguards by design” as well as to demonstrate whether or not such facilities can be effectively safeguarded. On the other hand, by refusing to make available the plant design to the IAEA at an early stage and denying the Agency the opportunity to conduct design verification activities, the United States is conveying exactly the wrong message, not only to Russia but also to other nations contemplating the development of sensitive fuel cycle facilities. This will undermine efforts to strengthen the universality and credibility of IAEA safeguards. We note that Iran is another example of a country that is refusing to comply with commitments for the early provision of design information to the IAEA.

We understand that you may intend to address the issue of IAEA verification of the MOX facility later in the context of a future bilateral agreement with Russia on monitoring and inspections, which must be negotiated under the terms of the 2000 Plutonium Management and Disposition Agreement. However, this monitoring agreement appears to be on a very slow track and is not likely to be concluded for years. Again, for the United States to delay including the IAEA in the process until years after plant construction has begun would greatly complicate the ability of the Agency to apply efficient and effective safeguards.

Again, we urge you to demonstrate your commitment to the nuclear nonproliferation regime by delaying construction of the MOX plant until 180 days after IAEA safeguards have been applied and the IAEA has received the design information it needs to develop a safeguards approach. We appreciate your consideration of this request and would welcome the opportunity to discuss this important issue with you and your staff at your earliest convenience.

Sincerely,

A handwritten signature in black ink that reads "Dr. Edwin S. Lyman". The signature is written in a cursive, flowing style.

Dr. Edwin S. Lyman
Senior Staff Scientist
Global Security Program