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**Statement of Non-Governmental Organizations  
on Plutonium Disposition**

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The nuclear arms race has left the United States and Russia with large plutonium stockpiles. Both countries have had terrible experience with plutonium processing and its attendant wastes. Contamination of areas such as Hanford, Savannah River, and Rocky Flats in the United States, and Chelyabinsk, Tomsk, and Krasnoyarsk in Russia demonstrates the hazards of plutonium processing, and the poor environmental and safety culture of the US Department of Energy (DOE) and the Russian Ministry of Atomic Energy (Minatom).

With the end of the Cold War, we have the opportunity to redirect resources from nuclear weapons programs into cleaning up the legacy of nuclear weapons development, and to other needed programs. Under the pressure of people of both countries, the governments of the US and Russia have between them declared 100 metric tons of plutonium (roughly one-third of the total) to be "surplus" to military needs. We recognize the need for this plutonium to be stored as safely as possible, and to be converted into non-weapons-usable forms.

However, we are deeply disturbed by the primary method by which this conversion is planned. We are convinced that using surplus weapons plutonium in fuel for nuclear reactors (known as mixed-oxide or MOX fuel) is not an acceptable solution. A better method of disposition would be to immobilize the plutonium -- that is, to mix it with ceramic or glass and to provide a radioactive barrier to further prevent theft and diversion.

We are very concerned about the safety risks of using MOX fuel in existing reactors, almost none of which are designed to run on plutonium fuel. According to a study released by the Nuclear Control Institute in January, the use of a one-third core of warhead plutonium fuel in U.S. nuclear reactors could result in up to a 37% increase in cancer risk to the public in the event of a severe accident. Concerns are even greater in Russia. Many of the Russian reactors slated for MOX use are old and will reach the end of their 30-year licensed lifetimes before the disposition program is complete. Furthermore, Russian regulatory agencies do not have sufficient resources or political standing to adequately ensure safety at a MOX fabrication facility and at reactors.

Furthermore, we are dismayed that the people of both countries have been cut out of the process

as decisions about plutonium disposition are made. The US has not ensured that Russian programs funded with American money follow environmental and public participation requirements. Joint US-Russian documents are largely unavailable to the Russian public, and the Russian translation of a 1996 joint study was marked "for official use only." Within the US itself, the DOE has made a mockery of the public participation process by issuing a contract for production and irradiation of MOX fuel before issuing a final Environmental Impact Statement and Record of Decision on the subject. It has also failed to include the input of communities living near reactors that are proposed for MOX fuel irradiation. Much of the European reprocessing and MOX performance record, cited by DOE as proof that MOX is a sound technology, is secret, further hindering public participation.

We hear a number of contradictory things from the US and Russian governments about the rationale behind a MOX program. DOE representatives say that the United States must support MOX programs in both countries because Russia insists upon it. Meanwhile, Minatom has said that it would prefer not to undertake a large-scale MOX program at the current time, and will do so only with heavy funding from abroad.

Minatom officials claim that plutonium is a valuable energy resource. Yet by their own estimates, plutonium-based nuclear energy will be more expensive than uranium-based nuclear energy for at least several decades. US officials say that MOX is not being pursued for its energy value but rather that it has been chosen to facilitate quick disposition of plutonium in Russia. However, immobilization is likely to be a much faster and cheaper method of plutonium disposition than MOX.

Finally, we are told that the MOX program is a non-proliferation measure. But under pressure from nuclear establishments in both countries, the goal of stabilization and immobilization of plutonium has been undermined by a program which threatens to push both countries into a plutonium economy. Money makes policy. The larger the investment into plutonium facilities under the auspices of a disposition program, the more likely it is that these facilities will continue to be used for other purposes once the disposition program is completed. Furthermore, it is apparent that international plutonium companies such as Cogema (France) and British Nuclear Fuels, Ltd. are seeking to serve their own financial interests by pushing MOX.

Fresh MOX fuel in commerce presents a proliferation threat as the plutonium in it can be removed and used for weapons purposes. A 1997 DOE non-proliferation assessment of plutonium disposition found "that fresh MOX fuel remains a material in the most sensitive safeguards category, because plutonium suitable for use in weapons could be separated from it relatively quickly and easily."

It is clear to us that rather than solving the problem of placing plutonium into safe and secure forms, a MOX program is likely to promote further plutonium processing and use, something that is undesirable on environmental, safety, economic, and non-proliferation grounds.

Therefore, we call on the US and Russian governments to stop MOX disposition programs in both countries. Instead, emphasis should be placed on safe storage and development of

immobilization programs.

Plutonium disposition programs must include significant and meaningful public input, including access to all information, including costs and operating records of the various actors involved in a disposition program. The public in the communities most directly affected should have ample opportunity for meaningful input into the decision-making process. All US funding of Russian programs should be contingent on compliance with the appropriate environmental and public process laws.

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