

66 FR 13794  
3/7/01

**From:** Terry Lodge <tjlodge50@yahoo.com>  
**To:** Tim Harris <teh@nrc.gov>  
**Date:** 5/21/01 6:52PM  
**Subject:** NEPA Scoping comments on MOX factory and commercial fuel usage

(38)

Dear Mr. Harris:

I offer my comments respecting the appropriate scope of NEPA compliance for the proposed Savannah River Site (SRS) mixed oxide plutonium factory, and the contemplated use of MOX as fuel in commercial nuclear power reactors.

As a preliminary matter, I request that the NRC extend the comment period 180 days due to the rapid changes that are taking place within the Executive Branch and Congress respecting the place that MOX will occupy in the Bush Administration and this country's foreign policy.

There are several international treaties which must be identified and analyzed for the impacts of MOX commercialization in this country. These include the Nuclear Non-Proliferation Treaty of 1968, the Stockholm Declaration on the Human Environment, and the Law of the Sea Convention (the latter, given the potential for pollution of international commons and extra-U.S. waters if MOX-related waste radioactivity is leaked into the Savannah River).

The contemplated MOX factory and use of MOX as civilian reactor fuel will violate the 1968 "Treaty on the Non-Proliferation of Nuclear Weapons" (hereinafter "NPT") in these ways:

>> The irradiation of plutonium MOX fuel in a nuclear power reactor diminishes the amount of plutonium only somewhat, but it keeps the plutonium available for possible later separation for civilian or weapons applications.

>> DOE's plans for MOX will showcase to the international community the feasibility of developing a plutonium-based economy by using decommissioned nuclear weapons as fuel.

>> Using weapons plutonium as reactor fuel in the U.S. will suggest an economic usefulness which outweighs the importance of nuclear disarmament to the global community.

>> DOE proposes to reverse a nearly quarter-century-old Executive Branch policy which forbade the U.S. from trafficking in MOX or

Template = ADM-013

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decommissioned nuclear weapons plutonium, either domestically or internationally.

>> The MOX factory and use of MOX as civilian fuel sets up a precedent for other countries to cite to, and will undermine future U.S. negotiations or demands for, disarmament because of the seeming hypocrisy of maintaining plutonium in a recoverable state.

The 1996 "Proliferation Vulnerability Red Team Report" of Sandia Laboratory, (SAND 97-8203) indicates (p. 6-1) that all plutonium from all stages of all alternative dispositions can be made weapons-usable should sufficient material be gathered.

The civil and military sides of the plutonium question are integrally related. The National Academy of Sciences ("NAS"), a congressionally-formed scientific advisory entity, has underscored that "the risks posed by all forms of plutonium must be addressed," and that "further steps should be taken to reduce the proliferation risks posed by all of the world's plutonium stocks, military and civilian, separated and unseparated ...." NAS, "Management and Disposition of Excess Weapons Plutonium 34" (NAS Committee on International Security and Arms Control 1994). NAS has further warned that:

[P]olicymakers will have to take into account the fact that choosing to use weapons plutonium in reactors would be perceived by some as representing generalized U.S. approval of separated plutonium fuel cycles, thereby compromising the ability of the U.S. government to oppose such fuel cycles elsewhere.

Id. p. 149.

No less than the mainstream technical advisory agency, The Rand Corporation, has stressed that:

It is critical that countries pay attention to the proliferation threat from the civilian side if they want to maximize the nonproliferation value of dismantling U.S. nuclear weapons and those of the FSRs, [i.e., Former Soviet Republics]. If countries ignore the civilian threat, they can compound the problem by making wrong choices on how to deal with military materials.

Chow and Solomon, "Limiting the Spread of Weapon-Usable Fissile Materials xii" (Rand Corp. 1993). This view still pertains at Rand:

To build a more proliferation-resistant future for civilian nuclear power worldwide would require that the use of plutonium as fuel be postponed indefinitely because it creates no economic benefits but much proliferation risk.

"Controlling the Flow of Weapon-Usable Fissile Materials," February 2000 Internet article, [www.rand.org/publications/RB/RB7405/](http://www.rand.org/publications/RB/RB7405/).

The challenge to the U.S. thus is to establish and implement a coherent national plutonium policy which does not return warhead plutonium to weapons use and as well avoids the creation of stocks of separated, weapons-usable plutonium in the world. In addressing this challenge, it cannot be assumed that civilian and military plutonium are fundamentally different in levels of risk of their use for explosive purposes, or that international safeguards can be applied effectively to provide adequate assurance of peaceful processing and use of separated plutonium, either civilian or demilitarized, as fuel for power reactors.

The Non-Proliferation Treaty calls for halting the spread of nuclear weapons capability, but also enjoins nuclear-weapons states to quickly plan for worldwide disarmament:

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.

NPT Art. VI.

Promoting MOX as nuclear fuel and marketing and showcasing it violates the primary objective of the NPT expressed in Article VI. In 1996, the International Court of Justice ("ICJ"), the rulings of which legally bind the United States, ruled unanimously that Article VI creates an "[O]bligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control." "Legality of the Threat or Use of Nuclear Weapons," ICJ, General List 95, 8 July 1996, ¶ 105(2)(F). This obligation "[G]oes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result - nuclear disarmament in all its aspects - by ... the pursuit of negotiations on the matter in good faith. Id. ¶ 99.

"The obligation expressed in Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons includes its fulfillment in accordance with the basic principle of good faith." Id. ¶ 102.

There is authority in NEPA for consideration of the international policy and treaty impacts of the proposed MOX efforts by DOE. Section 102 of NEPA (42 U.S.C. § 4332) states:

The Congress authorizes and directs that, to the fullest extent possible:

... all agencies of the Federal Government shall –

(F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment ....

And NEPA's implementing regulations (40 CFR § 1508.18) state:

In addition, the adoption of official policy in the form of rules, regulations and interpretations pursuant to the Administrative Procedure Act, treaties, conventions, or other formal documents establishing governmental or agency policy which will substantially alter agency programs, could require an EIS.

Finally, the agreement between the U.S. and Russia for the disposition of surplus plutonium must be analyzed within the EIS for its potential impacts on existing international treaty commitments.

The failure of the NRC to ensure that all treaty-related impacts are identified and discussed within the EIS will violate NEPA.

Thank you for the opportunity to comment.

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