

**From:** "John Serop Simonian" <serop2@collegeclub.com>  
**To:** <teh@nrc.gov>  
**Date:** 5/17/01 3:54AM  
**Subject:** Citizen Input on Scope of EIS of MOX Fuel

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9759 El Arco Dr.  
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May 17, 2001

Tim Harris  
US Nuclear Regulatory Commission  
Rules & Directives Branch  
Division of Administrative Services  
Office of Administration  
Mail Stop T6D59  
Washington, DC 20555

Dear Mr. Harris:

I am writing to express my deep concern about the proposal to begin using mixed oxide (MOX) fuel in commercial power-generating US nuclear reactors. As you know, plutonium is normally used strictly for military purposes because of its enormous risk relative to uranium. Like many of my fellow citizen concerned about the increased use of nuclear power in the US, I am not assuaged by the various assurances that commercial use of weapons grade plutonium will lead to a domestic and international reduction in the proliferation of nuclear weapons.

I urge the Nuclear Regulatory Commission (NRC) to take the following facts into consideration when planning the environmental impact study (EIS) of allowing MOX fuel to be manufactured and used in domestic nuclear reactors:

\*The proposed test reactors are among the most unsafe in the nation. The Duke Power ice condenser reactors selected specifically for this program have the weakest physical containment structures in the US fleet. One of the NRC's own reports acknowledges that in the event of a station blackout there is a 100% chance of core damage and containment failure the Catawba reactors and almost as high a chance at the two McGuire reactors. This, combined with the increased destructive potential of MOX (compared to simple uranium), makes the effects of a nuclear accident at these sites unacceptably catastrophic.

\*The public knows very little about the risks associated with MOX fuel. For this reason, you should provide the public with the data on which NRC is calculating any of its projected impacts from the handling and use of weapons grade plutonium as a reactor fuel. Where there is no data, please provide us with all assumptions and a statement of the degree of uncertainty associated with calculations intended to "model" weapons grade plutonium.

\*Evaluation of plutonium fuel use and reactor impact is too important to be calculated using models that ignore individual reactors' structural and safety specifications and histories. Therefore, NRC's proposal to do a

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generic analysis of all US reactors is reckless, especially given the fact that NRC knows exactly which reactors will be used in this program. NRC must thoroughly analyze the suitability of the reactors in question and should not use these site-specific analyses to draw inferences about the suitability or the rest of the US fleet or vice versa.

\*One EIS is not sufficient to protect the environment and the local public. If Duke or any other utility seeks a license amendment to use MOX or any other plutonium fuel, NRC should conduct a supplemental EIS (SEIS). Because it is hotter and creates more residual plutonium waste than its conventional uranium counterpart, MOX fuel requires up to four times as much storage space as uranium fuel. The SEIS should take this and other factors unique to MOX fuel into consideration.

\*The public knows very little about the environmental and operating histories of Duke, COGEMA, Stone, and Webster. As a matter of simple transparency, NRC must make these records public and easily accessible to a wide range of interested parties. NRC should also cite these records openly in any analysis that it does. To date, DCS has submitted only the operating and environmental record of Savannah River Site, which is not relevant.

\*EIS's have been shamefully limited in scope in the past. A complete environmental justice analysis must include not only the communities adjacent to Savannah River Site, but also communities down wind and down river, including subsistence fish consumers, transport routes for both the source material and the fuel transport, and the reactor communities.

\*Using weapons grade plutonium in commercial reactors does not definitively reduce the public's risk of nuclear contamination. Making reactor fuel would require many more steps for purification than immobilization would. One of these steps, called "plutonium polishing," would generate millions of gallons of high-activity alpha-emitting liquid waste. DCS has no plan for what to do with this waste other than put it in one of SRS's tanks, many of which are already leaking. NRC must include the disposition of all process wastes in their analysis.

For these reasons, the NRC should pursue a No Action Alternative for the manufacture and use of MOX fuel.

Sincerely,  
John Serop Simonian

CC: Senator Barbara Boxer, Senator Dianne Feinstein, Representative Ed Royce.

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