

December 21, 2000

Mr. Michael E. Berg  
335 S. Woodrow Street  
Columbia, SC 29205

SUBJECT: CONCERNS REGARDING MIXED OXIDE FUELS

Dear Mr. Berg:

I am responding to your undated letter postmarked November 13, 2000, in which you expressed concerns about the safety of MOX fuels, the selection of its use in commercial nuclear power plants, and the need for public hearings.

Regarding safety, the U.S. Nuclear Regulatory Commission (NRC) is charged with the responsibility to ensure that the fabrication of MOX fuel and its use in commercial nuclear power plants is performed in a manner that protects public health and safety. Before a MOX fuel fabrication facility is built, the NRC must approve how the facility is designed. Likewise, before a MOX fuel fabrication facility can operate, the NRC must conclude that the facility's approved design features are in place, and that all other applicant requirements have been met. The construction authorization request (CAR) and related information have not yet been submitted to the NRC for approval. The CAR is expected to be filed on February 28, 2001. Similarly, before MOX fuel is used in any commercial nuclear power plants, applications to do so must be approved by the NRC. No such applications have yet been filed with the NRC.

Regarding your concern that plutonium is not being permanently immobilized, in the U.S. Department of Energy's (DOE's) "Surplus Plutonium Disposition Final Environmental Impact Statement," the DOE provided its basis for its selection of a hybrid approach for dispositioning surplus plutonium. Immobilizing plutonium is part of DOE's hybrid approach.

As part of NRC's review of the potential environmental impacts of building and operating a MOX fuel fabrication facility, the NRC will conduct public scoping meetings. These scoping meetings will be part of the NRC's process to support development of its environmental impact statement (EIS) for the MOX fuel fabrication facility. The first such public meeting on the EIS is expected to occur shortly after receipt of the CAR. At least one of the public scoping meetings related to the MOX fuel fabrication facility will be held in the vicinity of the Savannah River Site. As the staff stated in public meetings held in Columbia and North Augusta, South Carolina, in July 2000, the NRC plans to consider Charlotte, North Carolina, as a possible site for another of the public scoping meetings.

As part of the proposed licensing of the MOX fuel fabrication facility, we understand that the applicant, Duke Cogema Stone & Webster, will be submitting its application in two stages--an approval of construction stage and an approval of operation stage. If this happens, the NRC will publish in the Federal Register notices of opportunity for hearing in connection with each of the two required approvals (approval for construction and approval for operation). The procedural requirements for such hearings are in Title 10 of the Code of Federal Regulations,

Part 2, Subpart L. Public hearings associated with the fuel fabrication facility would only be held if a request for a hearing is filed, and if the Atomic Safety and Licensing Board (ASLB) determines that the requirements for a hearing have been met.

As indicated above, to use MOX fuel in a reactor, a reactor licensee must submit a license amendment application to NRC. The NRC affords the public an opportunity to request a hearing after receipt of a license amendment application. A license amendment application to use MOX fuel in a commercial reactor is not expected before August 2001. The staff has been informed that the initial amendment application in this regard would seek NRC approval to insert several MOX fuel assemblies, known as Lead Test Assemblies (LTAs), in the McGuire reactor. These LTAs would be irradiated and subsequently inspected. License amendment applications to insert MOX fuel assemblies into the Catawba reactor and to insert MOX fuel assemblies, other than the LTAs, into the McGuire reactor, are not expected before January 2004. Once Duke Power, the licensee for Catawba and McGuire, submits applications for license amendments, notices of opportunity for a hearing would be published in the Federal Register. The procedural requirements for reactor hearings are in Title 10 of the Code of Federal Regulations, Part 2, Subpart G. Public hearings associated with the use of MOX fuel in commercial reactors would only be held if a request for a hearing is filed, and if the ASLB determines that the requirements for a hearing have been met. Should such hearings be conducted, the ASLB determines the time, location, and scope of such hearings. Finally, the NRC plans to hold public meetings in the vicinity of the reactor sites to receive public input on applications to utilize mixed oxide fuels at Catawba and McGuire; however, the location and schedules for these meetings will not be established until after receipt of any license amendment applications from Duke Power.

Sincerely,

/RA/

Andrew Persinko, Sr. Nuclear Engineer  
Special Projects Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket: 70-3098

cc:

Mr. James Johnson, DOE  
Mr. Henry Potter, SC Dept of Health  
& Environmental Control  
Mr. John T. Conway, DNFSB

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Sincerely,  
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 Andrew Persinko, Sr. Nuclear Engineer  
 Special Projects Branch  
 Division of Fuel Cycle Safety  
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 & Environmental Control  
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