

Ms. Mary Olson
Nuclear Information and Resource
Service Southeast
P.O. Box 5647
Augusta, GA 30916-5647

Dear Ms. Olson:

I am responding to your questions concerning mixed oxide (MOX) fuel product quality assurance (QA) requirements that you raised at the May 9, 2000, public meeting to discuss NUREG-1718, "Standard Review Plan (SRP) for the Review of an Application for a Mixed Oxide (MOX) Fuel Fabrication Facility." You specifically asked: (1) if there will be any special QA requirements on the MOX fuel itself, and (2) if so, what documents would apply.

As we noted in the May 9, 2000, meeting, the revised 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," is the regulation that the staff will apply to the MOX facility. NUREG-1718 is the facility-specific SRP addressing the facility operations safety and quality assurance plan requirements that the staff will use to evaluate the MOX fuel fabrication facility request for construction approval and license.

With regard to the MOX fuel or product design, use and quality assurance, the regulation of those activities are conducted by the NRC Office of Nuclear Reactor Regulation (NRR). Its regulations are published (10CFR50), and any power reactor using the MOX fuel would be required by its license conditions and the regulations to assure adequacy of the MOX fuel design and quality assurance. At the present time, NRR is not planning to issue any special guidance regarding the MOX fuel as compared to non-MOX fuel. The MOX facility is planned to provide MOX fuel to the Duke Power Company (DPC) Catawba and McGuire reactors and would be considered a supplier to those NRC-licensed facilities. As such, the MOX facility must have a QA program that meets the requirements of 10CFR50, Appendix B criteria applicable for power reactors. The 10CFR50, Appendix B QA requirements are the standard QA requirements which have been applied for all power reactors since 1970. DPC would be required to ensure that the MOX product QA program meets NRC requirements, and to conduct periodic audits to ensure the adequate implementation of the QA program. In addition, the MOX facility fuel design and fabrication activities and QA program implementation would be subject to periodic NRR inspections conducted of suppliers to nuclear power reactors. The NRR inspection reports are published as quarterly reports in NUREG-0040, "Licensee Contractor and Vendor Inspection Status Report."

The reactor licensees have technical specifications limits in their licenses that must be met during operations, and the design and use of MOX fuel must be in compliance with these requirements. The MOX applicant may submit to NRC a topical report addressing the MOX fuel design and reactor operation and licensing issues. Any changes to the technical specifications or safety limits that are necessary to use MOX fuel must be submitted by the reactor licensee

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and approved by NRC as a license amendment prior to use. These submittals and license amendments would be reactor specific and would be available to the public under the individual licensee docket.

I trust this answers your questions.

Sincerely,

/RA/

Andrew Persinko
MOX Project Manager
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket: 70-3098

M. Olson

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