



DUKE COGEMA  
STONE & WEBSTER

Mr. Eric J. Leeds, Chief  
Special Projects Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

01 November 2000  
DCS-NRC-000027

Attention: Document Control Desk

Subject: Docket Number 070-03098  
Duke Cogema Stone & Webster  
Mixed Oxide (MOX) Fuel Fabrication Facility  
Format and Content of the Construction Authorization Request and Safety  
Assessment of the Design Bases

Dear Mr. Leeds:

As you know, Duke Cogema Stone & Webster, LLC (DCS) will be submitting a construction authorization request (CAR) for NRC's approval of construction of the DOE-owned Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF) in the near future. In accordance with the recently revised 10 CFR 70, our request will include a safety assessment (SA) of the design bases for the principle structures, systems, and components of the MFFF, an updated MOX Project Quality Assurance Plan, and an Environmental Report. Subsequently, concurrent with the completion of the final design, we will submit an application for a license to possess and use special nuclear material, along with an Integrated Safety Assessment (ISA) Summary.

In keeping with the provisions of the recently revised 10 CFR 70, the ISA Summary will be submitted with, but will not be part of, the license application (LA). The ISA Summary will be based on and will summarize the various analyses comprising the ISA itself, including nuclear criticality safety analyses, fire hazard analyses, chemical safety analyses, and so forth, which will be maintained by DCS onsite (i.e., at the DCS offices, and later at the MFFF site) and available for NRC review.

Because the ISA Summary's relation to the LA is virtually identical to that of the SA to the CAR, our intent is to submit the SA along with, but not as part of, the CAR. The SA will contain sufficiently detailed descriptions of supporting analyses to enable the NRC Staff to reach their conclusions. In keeping with typical safety analysis report submittals, however, and indeed in keeping with the intent of the ISA Summary as envisioned by 10 CFR 70, the SA will not contain the analyses themselves.

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We intend generally to follow the format indicated in NUREG-1718 for the CAR and SA. For Chapters 5, 6, 7, 8, and 9, programmatic descriptions and commitments will be included in the CAR, and descriptions of design bases and results of analytical work to date will be contained in the SA. For Chapter 11, the descriptions of principle SSCs will be included in the SA.

Chapter 9 deals primarily with radiological safety during normal operations, which is not the focus of the SA (nor of the later ISA and ISA Summary). We nonetheless intend to include related design basis information and analytical results in the SA (and ISA Summary). The reason is that the level of detail of information is generally consistent with that of the SA, and there is an important interface between radiological safety during normal operations and the facility's safety basis intended to protect the workers and the public during postulated accidents. We believe this construct is consistent with previous discussions between the NRC Staff and fuel cycle industry representatives.

The separation of the CAR and SA into two documents is consistent with the intent of the recent changes to 10 CFR 70 and its separation of the LA and ISA Summary. We believe submitting the CAR and SA as separate documents for the construction authorization phase is the most straightforward and logical way to establish the framework for future submittals in accordance with the new §70.65. Given the fact that the CAR can be viewed as the first step of the MFFF LA, submittal in this way will also preclude the potential for future confusion regarding details of the design basis that are or are not "part of" the application itself.

It is important to recognize that the largely procedural distinction between the CAR and the SA (as with the distinction between the LA and the ISA Summary) is neither intended to nor will it restrict the amount of information available for review by the NRC Staff.

We would appreciate your concurrence with this approach at your earliest opportunity so that we may proceed with final document formatting and production. If you have any questions, comments, or concerns, please feel free to contact me anytime at (704) 373-7820 or at [pshastings@dukeengineering.com](mailto:pshastings@dukeengineering.com). Thank you for your consideration.

Sincerely,



Peter S. Hastings, P.E.  
Licensing Manager

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