



DUKE COGEMA  
STONE & WEBSTER

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U.S. Nuclear Regulatory Commission  
Washington, DC 20555

27 September 2006  
DCS-NRC-000190

Subject: Docket Number 070-03098  
Duke Cogema Stone & Webster  
Mixed Oxide Fuel Fabrication Facility  
Submittal of License Application

Reference: (A) J. R. Strosnider (NRC) letter to L. R. Barnes (DCS), dated March 30, 2005, "Construction Authorization and Final Safety Evaluation Report for Construction of the Mixed Oxide Fuel Fabrication Facility"

Duke Cogema Stone & Webster (DCS) hereby submits to the U.S. Nuclear Regulatory Commission (NRC) a License Application (LA) pursuant to 10 CFR Parts 30, 40 and 70 for possession and use of byproduct, source, and special nuclear materials for the Mixed Oxide Fuel Fabrication Facility (MFFF).

Enclosure (1) provides the base LA. Several plans and other documents accompany the LA under separate covers:

- The Integrated Safety Analysis Summary is submitted under separate cover to distinguish it from the license as provided for in 10 CFR 70.65(b). Also, it should be withheld from public disclosure pursuant to 10 CFR 2.390 for security concerns; some of it also contains proprietary information.
- The following plans are submitted to be withheld from public disclosure pursuant to 10 CFR 2.390(d); these are referred to in Chapters 3 and 13 of the LA:
  - Classified Matter Protection Plan
  - Fundamental Nuclear Material Control Plan
- The following plans being submitted under separate cover are classified as *Confidential National Security Information* (CNSI); these are referred to in Chapter 13 of the LA:
  - Physical Protection Plan (CNSI)
  - Training and Qualification Plan for Security Personnel (CNSI)
  - Safeguards Contingency Response Plan (CNSI)
- An Evaluation Pursuant to 10 CFR 70.22(i)(1) – MFFF Emergency Plan Assessment, which justifies not submitting an emergency plan. This assessment should be withheld from public disclosure pursuant to 10 CFR 2.390. The evaluation is referred to in Chapter 14 of the LA.

- Several requests for exemptions from specific regulations. These are referred to in Section 1.2 of the LA and are submitted separately to facilitate NRC's actions on the exemptions.

The NRC's MFFF Construction Authorization of Reference (A) contained several conditions, all but two of which have been or will be satisfied during construction of the MFFF. The two conditions mentioned above are satisfied in this LA. They are (from Enclosure 1 of Reference (A), CAMOX-001, items 3.E. and 3.F.):

- E. As more fully set forth in the FSER, the facility will be designed so that keff shall not exceed an Upper Subcritical Limit of 0.9249 for normal and credible abnormal conditions covered by Area of Applicability (4), [AOA(4)]. DCS shall not increase the keff limits or change the AOA boundaries beyond those contained in FSER Chapter 6 without prior Commission review and approval.
- F. As more fully set forth in the FSER, the facility will be designed so that a safety function of the Emergency Control Room (ECR) Air Conditioning System will maintain hazardous chemical concentrations in each ECR below CAR Table 8-5 TEEL-1 limits for the duration of credible hazardous chemical release events.

With regard to item 3.E. above, the Upper Safety Limits (USL) are discussed in LA Section 6.0 and are listed in Table 6.4-1, for each Area of Applicability. In particular, the USL for AOA(4) is 0.9249. The condition 3.E. is therefore satisfied.

With regard to item 3.F. above, Section 4.3.6 of the LA, Emergency Control Room HVAC System, clearly states that the safety function is to provide cooling to the emergency electrical rooms, emergency electronics rooms, and emergency battery rooms. Habitability of the emergency control room is not a credited IROFS during a radiological or chemical event. The emergency control room ventilation system remains an IROFS item only to provide cooling functions for the emergency control room, not for operator habitability. The condition 3.F. is therefore satisfied.

If you have any questions, please feel free to contact me or Dirk Leach, Vice President and Deputy Project Manager at (803) 502-1895.

Sincerely,



David Stinson, President and COO

KDS/MAM

Enclosure

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