

October 9, 2007

Mr. R. T. Ridenoure
Vice President - Chief Nuclear Officer
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 550
Fort Calhoun, NE 68023-0550

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 - CONTINGENCY PLAN TO USE
LIGHT-WEIGHT TRANSFER CASK IN A 2009 DRY-CASK STORAGE
CAMPAIGN

Dear Mr. Ridenoure:

I am writing to provide you with comments on your contingency plans for using a light-weight transfer cask in a 2009 dry-cask storage campaign. Your staff discussed these plans with the Division of Spent Fuel Storage and Transportation (SFST) in a September 4, 2007, public meeting. A summary of the meeting is available in the Agencywide Documents Access and Management System (ADAMS) under accession number ML072550292.

The NRC staff has considered the information that you provided in the September 4, 2007, meeting and has the following comments relative to your contingency plan to use the light-weight transfer cask.

- 1) We do not believe that NRC review and, assuming approval, codification of the proposed Amendment 11 to the Standardized NUHOMS[®] design in 10 CFR 72.214 by the November 2008 time-frame is feasible unless this proposed Amendment is simplified by Transnuclear. Modifications to the amendment application that may reduce the scope and rigor of the NRC review include:
 - Limiting the use of the cask to radiation protection parameters bounded by the Fort Calhoun site.
 - The NRC staff's radiation protection evaluation for sites within carefully prescribed parameters can be completed more expeditiously than an evaluation that applies to all sites in the United States. For example, 10 CFR 72.104 requires that occupational restrictions must be established to meet as-low-as-is-reasonably-achievable (ALARA) objectives. The NRC staff understands the configuration of the spent fuel building, the impacts that the high-dose rates from the transfer cask would have on the Fort Calhoun plant, and the Fort Calhoun contingency plans available, if the crane were to malfunction during the loading campaign.

- Only one dry-shielded canister (DSC) configuration would have to be considered (i.e., the 32PT DSC) as opposed to the multiple configurations currently described in the proposed Amendment 11.
 - Reducing the heat load for the use of the light-weight transfer cask to what is absolutely necessary to support Fort Calhoun's next planned cask loading campaign.
 - Reducing the heat load would increase the predicted margin in maximum temperature limits, and reduce the high exposure rates (normal, off-normal, accident) predicted in the radiation protection areas of the application. NRC uses a graded approach to reviewing applications, and considers safety margins and radiological risk in the overall scope and depth of its regulatory review. The NRC staff understands that the Fort Calhoun 2009 dry-cask storage campaign would involve DSC thermal loads of less than 16 kW which is lower than the 24 kW DSC heat loads currently described in Amendment 11.
 - Eliminating the request for improvement of the technical specifications for the entire cask system. Generic improvement of the technical specifications is encouraged by NRC. However, this involves a complex review, and is not necessary to support Fort Calhoun's near-term needs.
- 2) The use of the light-weight transfer cask, if the crane is capable of lifting a heavier cask, would be problematic for the NRC staff to approve from an ALARA standpoint. This scenario was discussed in the September 4, 2007, meeting and the crane upgrades are assumed to be completed by early 2009. However, because of an availability issue associated with a 100-ton transfer cask, Omaha Public Power District (OPPD) staff indicated that a 75-ton light-weight transfer cask might have to be used. In response, the NRC staff stated that the proposed Amendment 11 includes a technical specification that would prevent the use of a light-weight transfer cask, if the existing plant fuel building crane were certified to 100 tons or higher. Thus, if Amendment 11 is approved, the OPPD may have to make a technical-specification exemption to Amendment 11 in the event the OPPD seeks to use a light-weight transfer cask. The NRC may or may not decide to grant such an exemption request. The NRC staff will consider the regulations in 10 CFR 72.7 in making its determination.
- 3) Crane upgrades should not be delayed to force the use of a light-weight transfer cask.
- 4) If an exemption request is submitted, OPPD should provide a detailed basis regarding the need for a dry-cask storage campaign in early 2009. The NRC staff has insufficient information to determine the number and profile of casks to be loaded in this time frame to allow for full core offload capability and better management of decay heat loads within the spent fuel pool (including minimization of fuel-handling activities).
- 5) In the event OPPD submits an exemption request to use a light-weight transfer cask, the NRC staff will need more processing time than what is normally required for a typical exemption request. This time is needed to inform the Commission in accordance with

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the August 31, 2006, staff requirements memorandum regarding the use of unshielded transfer casks in spent fuel movement (ADAMS accession number ML062430470).

- 6) As discussed in the September 4, 2007, public meeting, we believe future interactions are needed.

If you have any questions about this matter, please call me at (301) 492-3557, or Mr. Bill Brach, Director, Division of Spent Fuel Storage and Transportation, at (301) 492-3300.

Sincerely,

/ RA /

Michael F. Weber, Director
Office of Nuclear Material Safety
and Safeguards

Docket Nos: 72-54, 50-285

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