

DUKE POWER COMPANY

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July 10, 1986

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTENTION: B.J. Youngblood, Director
PWR Project Directorate #4

Subject: McGuire Nuclear Station
Docket Nos. 50-369 and 50-370
TN-8, TN-8L Multielement Spent Fuel Casks
License Amendments - Supplement

Dear Mr. Denton:

My letter of March 20, 1986 (as supplemented by my letter dated May 23, 1986) submitted proposed license amendments (pursuant to 10 CFR 50.90) to Facility Operating Licenses NPF-9 and NPF-17 for McGuire Nuclear Station Units 1 and 2, respectively. The proposed amendments seek to permit use of the multielement TN-8 (and TN-8L) spent fuel casks for receipt of irradiated Oconee fuel in addition to the previously authorized NFS-4 (NAC-1) and NLI-1/2 single fuel assembly casks. The "Notice of Consideration of Issuance of Amendment to Facility Operating License and proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" related to the submittal was published in the Federal Register on May 29, 1986.

In telecons on July 2 and 8, 1986 between Mr. D.S. Hood or your staff and Mr. R.L. Gill (DPC) during which the impacts of this proposed change were discussed, certain additional information was requested with respect to the environmental assessment being prepared for these amendments. Information addressing the requested 6 items is provided in Attachment 1 to further clarify and support Duke's position on the impacts of this proposed change.

Since this letter contains information supplementing that provided in my March 20, 1986 submittal which is currently under review and is bounded by the contents of that submittal, the previous amendments, justification and safety analyses, and significant hazards considerations remain valid, and no additional amendment fees are necessary.

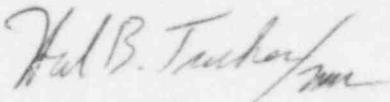
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Duke would like to reiterate its request that the proposed amendments receive timely approval for the reasons outlined in the March 20, 1986 submittal and expanded upon in subsequent discussions with Mr. Hood. Note that Duke Power Company has been registered as a user of the TN-8/8L casks in accordance with the provisions of 10 CFR 71.12 (reference Mr. C.E. MacDonald's (NRC/ONMSS) June 17, 1986 letter to H.B. Tucker (DPC)). Should there be any questions or if further information is required, please advise.

Very truly yours,



Hal B. Tucker

PBN/19/jgm

Attachment

xc: Dr. J. Nelson Grace
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Mr. Dayne Brown, Chief
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Mr. Darl Hood, Project Manager
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Washington, D.C. 20555

Mr. W.T. Orders
Senior Resident Inspector
McGuire Nuclear Station

ATTACHMENT 1

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION

SUPPLEMENTAL INFORMATION FOR ENVIRONMENTAL ASSESSMENT
TRANSPORTATION OF OCONEE SPENT FUEL TO McGUIRE VIA TN-8/8L CASKS

1. What occupational exposures are associated with the multielement TN-8 and TN-8L casks in relation to that for the single assembly NLI-1/2 cask?

Response: The average radiation dose to persons working on the single assembly cask has been determined to be the following:

Oconee Nuclear Station	135 person millirem
McGuire Nuclear Station	<u>80</u> person millirem
Total	215 person millirem per shipment

These values are the dose to all persons working with the cask, including drivers. There has been no measurable dose to drivers from transporting spent fuel from Oconee to McGuire. The higher dose rate at Oconee Nuclear Station is due to the higher background radiation in the cask handling area at that station.

For the three assembly TN-8/8L casks it is estimated that a higher dose per shipment of less than 400 mrem will be experienced than for one single assembly cask shipment. However, the dose for one three assembly TN-8/8L shipment will be lower than the 645 mrem dose estimated for an equivalent number of assemblies shipped with the NLI-1/2 cask. The reduced overall occupational dose is one reason for selecting the multielement cask.

2. Will transportation route be the same for the multielement cask as for the single assembly cask? Include on-site and off-site routes.

Response: The same off-site route and the same on-site route at McGuire Nuclear Station will be used. Transportation of the single assembly cask on-site at Oconee Nuclear Station has been conducted through both the northwest and northeast vehicle access portals. The TN-8 or TN-8L cask will also utilize one of these portals. Therefore transportation of the multielement cask will utilize the same routes as the single assembly cask. These transportation routes have previously been evaluated and approved by the NRC (e.g. McGuire Amendment Nos. 8, 25, 44 (Unit 1)/6, 25 (Unit 2)).

3. Will the contents of one shipment be unloaded at different pools at McGuire Nuclear Station?

Response: No, the three fuel assemblies in each shipment are to be put in the same spent fuel pool at McGuire. To divide a shipment between pools would defeat the advantages of the multielement cask, namely, reduced time, labor and radiation exposure.

4. Compare radiation releases to the environment during shipment from the single and multielement casks.

Response: There are no releases from the single assembly cask or the multielement cask during the normal course of transportation. Releases, if any, in a severe accident have been evaluated by the NRC prior to issuing certificates of compliance for the casks and found to be within the small amount permitted by 10CFR71.

5. Does use of the TN-8 and TN-8L spent fuel shipping casks create the possibility of any greater environmental consequences than those already analyzed for onsite handling of other casks?

Response: Use of the TN-8/8L spent fuel shipping casks creates no potential environmental consequences more severe than those previously analyzed for other casks. As noted in McGuire FSAR Section 9.1.2.3.6, the area in which the cask is handled is designed for a 30 foot drop of an assumed 100 ton rail cask, and therefore damage to fuel building structures due to a drop of the TN-8 or TN-8L cask is bounded by the previous drop analyses. NUREG-0612 and cask drop evaluations for the TN-8/8L casks have determined that no plant safety-related equipment can be damaged due to a cask drop, and the casks cannot fall into the spent fuel pool. Additionally, there are no postulated onsite accidents which would place more severe demands on the casks than those which could be experienced during transshipment.

6. Discuss any cumulative effects of using the multielement vs single assembly casks, and Duke Power Company's plans concerning further disposition of Oconee spent fuel shipped to McGuire Nuclear Station.

Response: As long as the maximum number of Oconee assemblies shipped to the McGuire Station remains at 300 (as required by License condition), no cumulative adverse environmental impacts would be created as a result of using the multielement casks rather than the single element casks (and in fact would likely be lessened as a result of making fewer shipments).

Duke intends to deliver all spent fuel, including that shipped to McGuire Nuclear Station, to the Department of Energy for disposal pursuant to contract. Duke is making no plans for other transfer of this spent fuel.