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PUBLIC DOCUMENT NO.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of

DUKE POWER COMPANY

(Amendment to Materials License  
SNM-1773 for Oconee Nuclear Station  
Spent Fuel Transportation and Storage  
at McGuire Nuclear Station)

Docket No. 70-2623

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO NATURAL RESOURCES DEFENSE COUNCIL REQUEST TO APPLICANT AND STAFF FOR ADMISSIONS 9-12" and a new page 6 to "NRC STAFF RESPONSE TO NATURAL RESOURCES DEFENSE COUNCIL REQUEST TO APPLICANT AND STAFF FOR ADMISSIONS DATED APRIL 2, 1979" dated April 18, 1979 in the above-captioned proceeding, have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, this 18th day of April, 1979.

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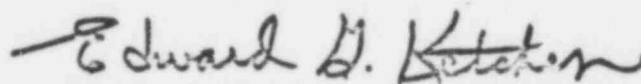
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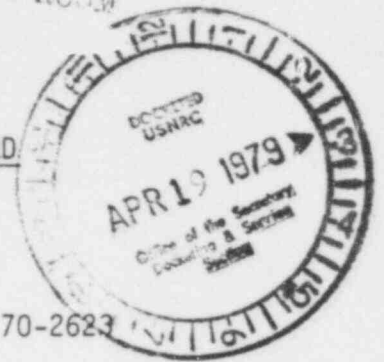
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4/18/79

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In the Matter of )  
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(Amendment to Materials License )  
SNM-1773 for Oconee Nuclear Station )  
Spent Fuel Transportation and Storage )  
at McGuire Nuclear Station) )

Docket No. 70-2623

NRC STAFF RESPONSE TO NATURAL RESOURCE DEFENSE  
COUNCIL REQUEST TO APPLICANT AND STAFF FOR ADMISSIONS-9-12<sup>1/</sup>

Request for Admission:

9. Shipment of spent fuel as proposed from Oconee to McGuire with the protective measures proposed increases the risk that the spent fuel would be released by the intentional act of someone other than the Applicant over the risk involved if it remained at the Oconee site with the protective measures involved there.

Admission:

The risk of release from spent fuel in transport may be greater than the risk of release from spent fuel that remains in the storage pool at the site. However, after considering the difficulty of breaching a

<sup>1/</sup> Responses to Natural Resources Defense Council Request for Admissions 1-8 were served on April 17, 1979.

spent fuel cask and fragmenting the fuel and the absence of information confirming any identifiable threat, the Staff believes that the possible additional risk is not significant.

Request for Admission:

10. Reliable expert analysis has concluded that a group of 12 outsiders and 3 insiders planning an attack against a nuclear facility is a credible threat. U.S. Atomic Energy Commission, Special Safeguards Study, by David M. Rosenbaum, John N. Googin, Robert M. Jefferson, David J. Kleitman, William C. Sullivan, 1974. See also U.S. Nuclear Regulatory Commission, Report of Task Force on Allegations by James H. Conran, April 29, 1977, p. 4-25; U.S. Congress, Office of Technology Assessment, Nuclear Proliferation and Safeguards, July 1977, Chapter VIII "Control of Proliferation" p. 197.

Admission:

The NRC Staff cannot admit to this request as presently worded.

The Special Safeguards Study cited a group of 12 outsiders and 3 insiders as the maximum credible threat to a nuclear facility. However, the study did not address sabotage threats and stated that "this threat estimate is by nature both subjective and imprecise, but we believe it to be informed and conservative." The Report of Task Force on Allegations by James H. Conran stated that "external threats up to 12 persons are sufficiently credible to warrant consideration in the development of safeguards acceptance criteria." The report Nuclear Proliferation and Safeguards refers on page 197 to a maximum credible threat in the

range of 12 to 15, with the comment that the report is describing the contents of an NRDC petition which the report does not endorse. Page 197 also refers to a RAND study which shows that groups of "3 to 6 are common, that larger groups do appear, and that a group size of 12 does appear to be somewhat of an upper boundary." Again on page 197, the report notes that "although the historical data are useful as a guide, an estimate of the number of attackers is inescapably a matter of judgment."

Request for Admission:

11. Reliable expert analysis has concluded that available methods for gathering information on possible sabotage against government or private property is such that a threat of the size described in the preceding paragraph can go undetected until an overt action is taken. MITRE Corporation, The Threat to Licensed Nuclear Facilities, MTR-7022, by Brennan, et al., September 1975, p. 143.

Admission:

The NRC Staff cannot admit the request for admission as presently worded. The NRC Staff notes that the report, The Threat to Licensed Nuclear Facilities, states that "It is unlikely that such a group [of domestic dissidents] would come to the notice of law enforcement authorities before it conducted its first violent operation." [Emphasis added.]

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However, the NRC Staff further notes that the subject report says nothing to imply that the group would be as large as that cited in request for admission 10 or that its first violent operation would be against a nuclear facility or a licensed shipment.

Request for Admission:

12. The Interim Report SAND77-1927 (pp. 190-200) presents a reliable estimate of the potential damage from an intentional release of radioactivity from a spent fuel cask of the general type proposed for the trans-shipment of Oconee spent fuel to McGuire.

Admission:

The NRC Staff cannot concur in the request for admission as presently worded on the following basis. In absence of hard data, it was necessary for the authors of the referenced report to estimate the kinds, quantities and forms of the postulated release. An attack was assumed and the resources believed to be necessary to disrupt the cask were estimated. Next, the amount of radioactive material that could be released was estimated based on the damage to the package and contents that could reasonably be expected from the attack; these estimates are subject to

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considerable uncertainty. At this time, we have no basis to either confirm or refute the release estimates contained in the report. Accordingly, we can neither confirm nor refute that the subject report presents a reliable estimate of the potential damage from an intentional release from the cask.

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Please insert attached page 6 in lieu of page 6  
of "NRC Staff Response to Natural Resources Defense  
Council Request to Applicant and Staff for Admissions  
Dated April 2, 1979" (served by the Staff on April 17, 1979).

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than if it is transferred to McGuire where it would be unloaded from the casks and placed in the McGuire spent fuel pool and later it had to be removed from the McGuire spent fuel pool for storage in an interim spent fuel storage facility.

Admission:

The Staff does not admit the request for admissions as presently worded. It can be said as a general proposition that the difference in total exposure from the different procedures described in the admission are essentially indistinguishable in terms of effects. However, in absolute terms either sequence suggested in the request for admission might result in more total exposure than the other, although no specific calculations of total worker exposure comparing the alternative sequences suggested in the request have been made at this time.

More importantly, however, the option of transferring to casks as described in the request for admission is impractical. The total number of casks (truck and rail) required for the type of procedure suggested by the request for admission do not exist. The NFS-4 cask which Duke presently owns (Duke has a second one on order) can hold only one (1) PWR assembly. Rail casks (if the number required were in existence) would require unnecessary expenditure for acquisition and also could only hold up to 10 assemblies per cask.

Request for Admission:

8. Total exposure of all workers from spent fuel handling would be lower with respect to the McGuire and Oconee facilities if at-reactor storage capabilities (including building a new pool at Oconee with maximum

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Station Spent Fuel Transportation )  
and Storage at McGuire Station) )

AFFIDAVIT OF BRETT S. SPITALNY

I, Brett S. Spitalny, am employed by the Nuclear Regulatory Commission in the Office of Nuclear Material Safety and Safeguards, Fuel Reprocessing and Recycle Branch, as the project manager for the amendment to Materials License No. SNM-1773. I have prepared or supervised the preparation of the responses to Natural Resources Defense Council's Request for Admissions.

These answers are true and correct to the best of my knowledge and belief.

Brett S. Spitalny  
Brett S. Spitalny

Subscribed and sworn to before me  
this 18TH day of APRIL, 1979.

Madeline C. Sides  
Notary Public

My Commission Expires: July 1, 1983.

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