

Docket No. 70-2623

MAY 19 1978

Distribution:

Docket File

NMSS:R/F

FCRR:R/F

JBMartin

RWStarostecki

JPROberts

JShafer

RBirkel

OLynch

BSSpitalny

PDR

LPDR, Walhalla, SC.

Mr. William L. Parker
Vice President
Steam Production Department
Power Building
422 South Church Street
Charlotte, N. C. 28242

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. Parker:

Your application for Amendment to License SNM-1773 has been received and docketed March 30, 1978 by the Office of Nuclear Material Safety and Safeguards (NMSS).

The information available as a result of the ongoing 10 CFR Part 50 review is adequate for us to proceed with the environmental and safety reviews. However, there are a number of issues with respect to licensing the McGuire spent fuel pool in accordance with 10 CFR Part 70 as an independent spent fuel storage installation (ISFSI) that require clarification or additional information to enable us to proceed with the review. As a result of the recent site visit by the staff, questions were also raised. The additional information required is identified in the attached enclosure.

As a result of our review to date, we have identified one item which is of concern to us and which we believe warrants resolution at the earliest possible time. We do not see the need to transport, as proposed, 120-day spent fuel from the Oconee site in view of the availability of older spent fuel. It is our position at this time that the scope of our review will be directly affected by the age of the spent fuel to be shipped and stored at the McGuire site. Therefore, we would like a meeting with you to resolve this question as soon as possible so that we may proceed with the safety and environmental reviews. On May 15, 1978, Brett Spitalny, a member of our staff, discussed with Greg Pollak the need for such a meeting in reference to this matter.

Some of the enclosed questions will no longer be pertinent if a decision on this matter is reached prior to the submittal of answers.

8802190110780519
PDR ADOCK 07002623
C PDR

OFFICE ➤

SURNAME ➤

DATE ➤

Mr. William L. Parker

- 2 -

In order to proceed expeditiously, we are requesting responses to each of the enclosed requests by June 5, 1978. To assist your staff in this matter, we have previously discussed our concerns on these topics at the site visit. If you have any difficulty meeting this schedule, please contact Brett Spitalny, the NRC project manager, at 301-427-4205.

Sincerely,

Original Signed by
Richard Starostecki

Richard W. Starostecki, Chief
Fuel Reprocessing and
Recycle Branch
Division of Fuel Cycle
and Material Safety

Enclosure:
Additional Information Required

| | | | | | | |
|---------|---------------|-----------|---------------|--|--|--|
| OFFICE | FCRR | FCRR | FCRR | | | |
| SURNAME | BSSpitalny:al | JPROberts | RWStarostecki | | | |
| DATE | 5/18/78 | 5/18/78 | 5/19/78 | | | |

ADDITIONAL INFORMATION REQUIRED

- 1) Supply calculated experienced dose rates emanating from the cask for the following conditions:

- a) 120 day old fuel
- b) 1 year old fuel

Explain method used for determining given values.

- 2) Furnish Oconee spent fuel source terms. Include method used for obtaining values of isotopes and minimum value cut-off point, if used. Also include such longer-lived isotopes as I^{129} , or justification for exclusion.

Supply values for both 120 day old and 1 year old fuel.

- 3) Supply the projected manpower schedule required for the completion of construction at the McGuire site. Provide an estimate of individual and total doses that might be received by construction and contractor employees. Also distinguish between any work areas contiguous to the route of ingress of the truck and cask, or adjacent to the fuel storage pool which may be frequented by construction workers and consequently cause an exposure of greater than background doses.
- 4) Furnish exact road mileage for each leg of the proposed route to be driven between the Oconee Nuclear Station and the McGuire Nuclear Station.

- 5) Supply activity levels experienced in the Oconee spent fuel pools in addition to revising Table 8.1 of the application to reflect values for assuming a 1 year decay period prior to shipping to the McGuire pool.
- 6) Loss of electrical power is a site-safety-related condition of potentially serious consequences. Ancillary systems for safety and security should provide continuous instrument lighting, alarm, and ventilation control power.

Section 5.3 of the application discusses the fact that the Unit 1 diesel generators will be available, however only in a manual mode. It is not a requirement for the diesel generators to be operational in the automatic mode, however, if this is not the case, one of two other alternatives exist:

- a) For storing spent fuel (120 days old), it is necessary to justify that in the case of a loss-of-power, the diesel generators may be manually started, and must supply power to the necessary systems within 30 minutes. In addition, calculations for heat-up rate of the spent fuel pool must be included.
- b) For storing aged spent fuel (minimum 1 year), a separate justification is not required.

6) (Continued)

Furnish the necessary justifications required if your intentions are to store 120 day old fuel.

- 7) Describe the alternatives that have been considered for the shipment of older fuel. The retention of a full core reserve on site is a contingency action, and not a safety requirement. Considering, for example, that the entire full core reserve was maintained in Oconee spent fuel Pool # 3, we believe that there would not be a need for transfer of 120-day spent fuel. For the period of one year, consider the shipment of older fuel from Pool #3, and discharge from units 1 and 2, in October '78 and December '78 respectively, into pool 1 and 2. At the end of one year, explain why there would not be enough aged fuel in Pool 1 and 2 to ship from that location.

- 8) Provide the required information used to calculate heat load for spent fuel as furnished on Page 16-1 of the application. NRC Branch Technical Position ASB 9-2 requires such variables as fraction of operating power, cumulative reactor operating time, and time after shutdown. In addition, supply the same information and the calculated heat-load for a "worst case condition" for fuel which has decayed for a period of one year.

- 9) The system review for the solidification of liquid radioactive waste for the 10 CFR Part 50 Safety Evaluation Report is a polymer and catalyst processing system. It is our understanding that this system is not operational at this time. Although the spent fuel pool contributes a small portion of the site's liquid radioactive waste and may be stored for a period of time, it is necessary to maintain a method of solidifying waste.

If this system is not operational prior to the proposed date for shipping fuel, describe what intentions you have for solidifying waste.