

Docket File

MAY 23 1977

Docket Nos. 50-262/270/287

Duke Power Company  
ATTN: Mr. William O. Parker, Jr.  
Vice President - Steam Production  
Post Office Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

Gentlemen:

RE: OCONEE NUCLEAR STATION, UNIT NOS. 1, 2 & 3

Our review of data received from reactor vessel material surveillance programs indicates that the materials used in reactor vessel fabrication may have a wider variation in sensitivity to radiation damage than originally anticipated. In addition, some reactor vessels incorporate more than one heat of materials, including weld metals in their beltline regions, but all of these heats may not be included in the reactor vessel material surveillance program.

Although our review of these data does not reveal a basis for concern regarding continued reactor vessel integrity over the next several years, the information does indicate the need for a detailed review of the materials employed in reactor vessel construction (in light of this recent data) and a review of the specimens employed in the surveillance program to determine if the present specimens reasonably represent the limiting materials in the reactor vessel beltline region.

In order to perform these reviews we will need the information listed in the enclosure relative to each of your reactor vessel(s) and associated surveillance specimens.

Accordingly, you are requested to supply one signed original and 39 copies of the information listed in the enclosure within 60 days of receipt of this letter. If any portion of the requested information was previously submitted to the NRC in connection with our consideration of the B&W Integrated Surveillance Program, that portion may be furnished by referencing the appropriate earlier submittal.



OFFICE >						
SURNAME >						
DATE >						

Duke Power Company

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MAY 23 1977

This request for generic information was approved by GAO under a blanket clearance number B-100225 (R0072); this clearance expires July 31, 1977.

Sincerely,

A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosure:  
Request for Information

cc w/enclosure:  
See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

May 23, 1977

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ATTN: Mr. William O. Parker, Jr.  
Vice President - Steam Production  
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Charlotte, North Carolina 28242

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Duke Power Company

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May 23, 1977

This request for generic information was approved by GAO under a blanket clearance number B-180225 (R0072); this clearance expires July 31, 1977.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosure:  
Request for Information

cc w/enclosure:  
See next page

Duke Power Company

- 3 - May 23, 1977

cc: Mr. William L. Porter  
Duke Power Company  
P. O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esquire  
DeBevoise & Liberman  
700 Shoreham Building  
806-15th Street, NW.,  
Washington, D.C. 20005

Oconee Public Library  
201 South Spring Street  
Walhalla, South Carolina 29691

## REQUEST FOR INFORMATION

### REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM

1. Provide the estimated maximum fluence (E 1 Mev) at the inner surface of the reactor vessel wall as of March 31, 1977.
2. Provide the effective full power years (EFPY) of operation accumulated as of March 31, 1977.
3. Identify the firm or firms that fabricated your reactor vessel.
4.
  - a. Provide a sketch of the reactor vessel showing all materials welds, in the beltline region\* and provide an identification number for each material.
  - b. Provide the following information for each of the welds in the beltline region:
    - (1) Shop control number or procedure qualification number;
    - (2) Filler metal and heat number;
    - (3) Type of flux and batch number;
    - (4) Welding process (sub arc, electroslog, manual metal arc, etc.)
    - (5) Post-weld heat treatment;
    - (6) Chemical composition (particularly Cu, P and S content);
    - (7) Drop weight  $T_{NDT}$ ;
    - (8)  $RT_{NDT}$ ;
    - (9) Charpy upper shelf energy (unirradiated);
    - (10) Tensile properties (unirradiated);
    - (11) Firm performing weld if more than one firm participated in welding;
    - (12) The maximum end-of-life fluence at the vessel inner wall.

\* As defined in 10 CFR 50, Appendix G, Section II.H.

c. Provide the following information for each of the plates or forgings in the beltline region:

- (1) Plate or forging serial number;
- (2) Plate or forging heat number;
- (3) Plate or forging material specification number;
- (4) Plate or forging supplier;
- (5) Plate or forging heat treatment;
- (6) Chemical composition (particularly Cu, P and S content);
- (7) Drop weight  $T_{NDT}$ ;
- (8)  $RT_{NDT}$  (unirradiated);
- (9) Charpy upper shelf energy (unirradiated);
- (10) Tensile properties (unirradiated);
- (11) The maximum end-of-life fluence at the vessel inner wall.

5. a. List the weld, plate and forging materials included in the vessel material surveillance program.

b. For each weld listed in 5.a., provide the information requested in items (1) through (11) of question 4.b.

c. For each plate or forging specimen listed in 5.a, provide the information listed in items (1) through (10) of question 4.c.

d. Provide a copy of the report which describes the surveillance program for your reactor vessel(s), if available.