

Docket No. 50-364 May 14, 1984

DISTRIBUTION

Docket File EJordan
NRC PDR JNGrace
L PDR
Gray File
ORB#1 Rdg
CParrish
EReeves (2)
DEisenhut
OELD
ACRS 10

Mr. R. P. McDonald
Senior Vice President
Alabama Power Company
Post Office Box 2641
Birmingham, Alabama 35291

Dear Mr. McDonald:

SUBJECT: REQUEST FOR INFORMATION, HEATUP/COOLDOWN CURVES - JOSEPH M. FARLEY NUCLEAR PLANT UNIT NO. 2

We are reviewing the information provided in your letters of November 10, 1983 and February 10, 1984 relating to Capsule U of the Unit 2 reactor vessel surveillance program. We need certain information to continue the review.

Please provide the information as shown in the enclosure at your earliest convenience, but at least within 30 days of receipt of this letter. We have provided draft questions to your staff by telephone on May 2, 1984 to assist in obtaining the needed information on a timely basis. This letter confirms the request for additional information.

The reporting and/or recordkeeping requirements of this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,
S. A. Varga

ORIGINAL SIGNED BY

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

ER
ORB#1:DL
EReeves;ps
5/14/84

SV
ORB#1:DL
SVarga
5/14/84

Mr. R. P. McDonald
Alabama Power Company

Joseph M. Farley Nuclear Plant
Units 1 and 2

cc: Mr. W. O. Whitt
Executive Vice President
Alabama Power Company
Post Office Box 2641
Birmingham, Alabama 35291

D. Biard MacGuineas, Esquire
Volpe, Boskey and Lyons
918 16th Street, N.W.
Washington, DC 20006

Mr. Louis B. Long, General Manager
Southern Company Services, Inc.
Post Office Box 2625
Birmingham, Alabama 35202

Charles R. Lowman
Alabama Electric Corporation
Post Office Box 550
Andalusia, Alabama 36420

Houston County Commission
Dothan, Alabama 36301

James P. O'Reilly
Regional Administrator - Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, GA 30303

Robert A. Buettner, Esquire
George F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, DC 20036

Chairman
Houston County Commission
Dothan, Alabama 36301

Robert A. Buettner, Esquire
Balch, Bingham, Baker, Hawthorne,
Williams and Ward
Post Office Box 306
Birmingham, Alabama 35201

Resident Inspector
U.S. Nuclear Regulatory Commission
Post Office Box 24 - Route 2
Columbia, Alabama 36319

State Department of Public Health
ATTN: State Health Officer
State Office Building
Montgomery, Alabama 36104

Regional Radiation Representative
EPA Region IV
345 Courtland Street, N.E.
Atlanta, GA 30308

ENCLOSURE

ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT - UNIT 2
DOCKET NO. 50-364
REQUEST FOR INFORMATION
CAPSULE U HEATUP/COOLDOWN CURVES

1. Provide the nickel composition for all plate materials in the reactor vessel beltline.
2. Provide pressure temperature limit curves that comply with the explicit closure flange material temperature requirements of the amended (May 27, 1983) Appendix G, 10 CFR 50, or
3. Provide the analysis that shows that the closure flange region is less limiting than the beltline region. Include as a minimum the following information:
 - a. A description of the finite element analysis used to determine the stresses within the closure flange region.
 - b. Indicate the peak bolt-up, pressure and thermal stresses determined by the finite element analysis at the inside and outside surface locations of the flange to head and flange to shell junctions.
 - c. Indicate how the bolt-up, pressure and thermal stresses were combined to determine the maximum applied stress intensity factors.
 - d. Indicate the flaw geometry used to calculate the maximum applied stress intensity factors.
 - e. Indicate the maximum applied stress intensity factors for the flange to head and flange to shell junctions.
 - f. Indicate the non-destructive examination methods that will be used during inservice examination to determine that the critical flaw size,

which was used in determining the maximum applied stress intensity factors, is not within the flange to head and flange to shell junctions.

- g. Indicate whether the non-destructive examination methods identified in (f) have been evaluated to demonstrate that the examination methods are capable of locating and sizing flaws of the geometry used for calculating the maximum applied stress intensity factors. Indicate the results of the evaluation.
4. For each capsule in Table 4.4-5 of the Farley 2 technical specifications, provide the predicted neutron fluence ($E > 1\text{MeV}$) to be received by the capsule at the time of its withdrawal.