April 25, 1996

Mr. D. N. Morey
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT - JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2 (TAC NO. M95226)

Dear Mr. Morey:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing."

This notice relates to your proposed amendment application dated April 23, 1996, which would provide for a cycle-specific one-time Technical Specification change using the L*-type criteria for Unit 2 steam generator tubes that do not satisfy the F* criteria remaining in service for the remainder of Cycle 11.

Sincerely,

ORIGINAL SIGNED BY:

Byron L. Siegel, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-364

Enclosure:
Notice

cc w/encl:
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DATE	4/25/96	4/25/96		4/25/96
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 25, 1996

Mr. D. N. Morey
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
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See next page

Mr. D. N. Morey
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Columbia, Alabama 36319

UNITED STATES NUCLEAR REGULATORY COMMISSION

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

DOCKET NO. 50-364

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-8 issued to Southern Nuclear Operating Company, Inc. (the licensee) for operation of the Joseph M. Farley Nuclear Plant, Unit 2, located in Houston County, Alabama.

The proposed amendment would modify Technical Specification 3/4.4.6, "Steam Generator Surveillance Requirements," which provides tube inspection requirements and acceptance criteria to determine the level of degradation for which a tube may remain in service. The proposed amendment would add definitions required for the L*-type criteria and prescribe the portion of the tube subject to those criteria.

This requested Technical Specification (TS) change is a followup to a Notice of Enforcement Discretion (NOED) granted to the licensee that is in effect from the time of issuance on April 23, 1996, until approval of this exigent TS. NRC Inspection Manual, Part 9900, "Operations - Notices of Enforcement Discretion," requires that a followup TS amendment be issued within 4 weeks from the issuance of the NOED.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

Pursuant to 10 CFR 50.91(a)(6) for amendments to be granted under exigent circumstances, the NRC staff must determine that the amendment

request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Operation of the Farley Nuclear Plant Unit steam generators in accordance with the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The supporting technical evaluations of the subject criteria demonstrate that the presence of the tubesheet enhances the tube integrity in the region of the hardroll by precluding tube deformation beyond its initial expanded outside diameter. The resistance to both tube rupture and tube collapse is strengthened by the presence of the tubesheet in that region. The result of the hardroll of the tube into the tubesheet is an interference fit between the tube and the tubesheet. Tube rupture [cannot] occur because the contact between the tube and tubesheet does not permit sufficient movement of tube material. In a similar manner, the tubesheet does not permit sufficient movement of tube material to permit buckling collapse of the tube during postulated LOCA [loss-of-coolant accident] loadings.

The type of degradation for which the L* criterion has been developed (cracking with an axial or near axial orientation) has been found not to significantly reduce the axial strength of a tube. An evaluation including analysis and testing has been done to determine the strength reduction for axial loads with simulated axial and near axial cracks. This evaluation provides the basis for the acceptance criteria for tube degradation subject to the L* criterion.

The SRE [sound roll expansion] L* length is sufficient to preclude significant leakage from tube degradation located below the L* length. The existing Technical Specification leak rate requirements and accident analysis assumptions remain unchanged in the unlikely event that significant leakage from this region does occur. Any leakage from the tube within the tube sheet at any elevation in the tubesheet is fully bounded by the existing steam generator tube analysis included in the Farley Nuclear Plant Final Safety Analysis Report. A conservative

leakage allowance for each L* tube is provided to determine the impact of L* criterion upon offsite doses in the event of a postulated double ended guillotine break of the main steam line outside of containment, but upstream of the main steam line isolation valves. Since Farley Unit 2 has implemented the Interim Plugging Criteria (IPC) for ODSCC [outside diameter stress corrosion cracking] at the tube support plates, projected steam line break (SLB) leakage at the end of the next successive operating cycle must be evaluated. Per Generic Letter 95-05, plants implementing the IPC can utilize SLB leakage limits higher than the originally assumed 1.0 gpm primary to secondary leakage value provided an analysis of offsite doses consistent with Standard Review Plan methodology is performed. This analysis performed for the Farley Unit plant indicates that primary to secondary leakage of 11.2 gpm in the faulted loop (0.1 gpm in the intact loops) will result in offsite doses at the site boundary of less than 10% of the 10 CFR [Part] 100 guidelines. The total projected SLB leakage from all leakage sources must remain below this value. [Per Westinghouse analysis] addressing the L* methodology, the number of tube ends to which L* criterion can be applied is limited to 600 per steam generator. Using a bounding SLB leakage allowance per L* tube, the SLB leakage component from 600 L* tube ends will be less than 0.33 gpm in the faulted loop. The proposed L* criterion does not adversely impact any other previously evaluated design basis accident. As the current Unit 2 IPC SLB leakage has been calculated to be less than 2 gpm in the faulted loop, [an] SLB leakage margin of over 9 gpm is provided for this cycle.

As noted above, tube rupture and pullout is not expected for tubes using the L* criterion. In addition to the L* length, a minimum length of SRE below the identified degradation must be established. The aggregate L* distance of SRE provides the structural integrity to prevent tube pullout. Conservatively, it is assumed that the degraded band length does not provide any support in resisting tube pullout.

Therefore SNC [Southern Nuclear Company] concludes that Operation of the Farley Nuclear Plant Unit steam generators in accordance with the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Implementation of the proposed L* criterion does not introduce any significant changes to the plant design basis. Use of the criterion does not provide a mechanism to result in an accident initiated outside of the region of the tubesheet expansion. The structural integrity of L* tube will be maintained during all plant conditions. Any hypothetical accident as a result of any tube degradation in the expanded portion of the tube would be bounded by the existing tube rupture accident analysis. If it is postulated that a circumferential separation of an L* tube were to occur below the PLRL [pullout load reaction length], tube structural and leakage integrity will be maintained during all plant conditions.

Verification of the L* distance of non-degraded tube roll expansion prevents the postulated separated tube from lifting out of the tubesheet during all plant conditions. Verification of the L* criterion prevents tube displacement of any magnitude, and therefore, postulated axial cracks existing a minimum of 0.5 inch from either the bottom of the roll transition or top of tubesheet, whichever is lower, from migrating out of the tubesheet.

Therefore, SNC concludes that the proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed license amendment does not involve a significant reduction in a margin of safety.

The use of the L* criterion has been concluded to maintain the integrity of the tube bundle commensurate with the requirements of draft Regulatory Guide 1.121 under normal and postulated accident conditions. The safety factors used in the verification of the strength of the degraded tube are consistent with the safety factors in the ASME Boiler and Pressure Vessel Code used in steam generator design. The L* length has been verified by testing to be greater than the length of roll expansion required to preclude significant leakage during normal and postulated accident conditions. The leak testing acceptance criteria are based on the primary to secondary leakage limit in Technical Specifications and the leakage assumptions used in the FSAR [Final Safety Analysis Report] accident analyses. The L* distance provides for structural integrity during all plant conditions.

Implementation of the L* criterion will decrease the number of tubes which must be taken out of service with tube plugs or repaired with sleeves. Both plugs and sleeves reduce the RCS [reactor coolant system] flow margin, thus implementation of the L* criterion will maintain the margin of flow that would otherwise be reduced in the event of increased plugging or sleeving.

Therefore, SNC, concludes based on the above, it is concluded that the proposed change does not result in a significant reduction in a loss of margin with respect to plant safety as defined in the Final Safety Analysis Report or the bases of the FNP [Farley Nuclear Plant] technical specifications.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 15 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 15-day notice period. However, should circumstances change during the notice period, such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 15-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By May 30, 1996 , the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Houston-Love Memorial Library, 212 W. Burdeshaw Street, Post Office Box 1369, Dothan, Alabama. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the

possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If the amendment is issued before the expiration of the 30-day hearing period, the Commission will make a final determination on the issue of no significant hazards consideration. If a hearing is requested, the final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to Herbert N. Berkow:

petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to M. Stanford Blanton, Esq., Balch and Bingham, Post Office Box 306, 1710 Sixth Avenue North, Birmingham, Alabama, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated April 23, 1996, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room, located at the Houston-Love Memorial Library, 212 W. Burdeshaw Street, Post Office Box 1369, Dothan, Alabama.

Dated at Rockville, Maryland, this 25th day of April 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

Byron L. Siegel, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation