

May 22, 1996

Mr. William T. Cottle  
Group Vice-President, Nuclear  
Houston Lighting & Power Company  
South Texas Project Electric  
Generating Station  
P. O. Box 289  
Wadsworth, TX 77483

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS - SOUTH TEXAS  
PROJECT, UNITS 1 AND 2 (TAC NOS. M95401 AND M95402)

Dear Mr. Cottle:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing." This notice relates to your application for amendments dated May 17, 1996, which would modify Technical Specification Section 3/4.4.5, Steam Generators, 3/4.4.6, Reactor Coolant System Leakage, and associated Bases to allow the installation of tube sleeves as an alternative to plugging to repair defective steam generator tubes.

Sincerely,

ORIGINAL SIGNED BY:

Janet L. Kennedy, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure: Notice

cc w/encl: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in cursive script that reads "Janet L. Kennedy".

Janet L. Kennedy, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure: Notice

cc w/encl: See next page

Mr. William T. Cottle  
Houston Lighting & Power Company

South Texas, Units 1 & 2

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSIONHOUSTON LIGHTING & POWER COMPANYCITY PUBLIC SERVICE BOARD OF SAN ANTONIOCENTRAL POWER AND LIGHT COMPANYCITY OF AUSTIN, TEXASDOCKET NOS. 50-498 AND 50-499NOTICE 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 Nos. NPF-76 and NPF-80 issued to Houston Lighting & Power Company, et. al., (the licensee) for operation of the South Texas Project, Units 1 and 2, located in Matagorda County, Texas.

The proposed amendment would modify Technical Specification (TS) Section 3/4.4.5, Steam Generators, 3/4.4.6, Reactor Coolant System Leakage, and associate Bases to allow the installation of tube sleeves as an alternative to plugging to repair defective steam generator tubes.

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.

The Commission has made a proposed determination 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. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The laser welded sleeve has been designed and analyzed in accordance with the requirements of the ASME [American Society of Mechanical Engineers] Code. The applied stresses and fatigue usage for the sleeve are bounded by the limits established in the ASME Code. ASME Code minimum material property values are used for the structural and plugging limit analysis. Ultrasonic inspection is used to verify that minimum weld fusion zone thicknesses are produced. Mechanical testing has shown that the structural strength of Alloy 690 laser welded sleeves, under normal, upset, and faulted conditions provides margin to the acceptance limits. Leakage testing for 3/4-inch and 7/8-inch tube sleeves has demonstrated no unacceptable levels of primary-to-secondary leakage are expected during any plant condition, including the case where the seal weld is not produced in the lower joint of the tubesheet.

The sleeve nominal wall thickness (used for developing the depth-based plugging limit for the sleeve) is determined using the guidance of Regulatory Guide 1.121 and the pressure stress equation of Section III of the ASME Code. The limiting requirement of Regulatory Guide 1.121, which applies to part throughwall degradation, is the minimum acceptable wall to maintain a factor of safety of three against tube failure under normal operating (design) conditions. A bounding set of design and transient loading input conditions was used for the minimum wall thickness evaluation in the generic evaluation. Evaluation of the minimum acceptable wall thickness for normal, upset, and postulated accident condition loading per the ASME Code indicates these conditions are bounded by the design condition required minimum wall thickness.

A bounding tube wall degradation growth rate per cycle and an eddy current uncertainty has been assumed for determining the sleeve Technical Specification plugging limit. The sleeve wall degradation extent determined by eddy current, which would require plugging sleeved tubes, is developed using the guidance of Regulatory Guide 1.121 and is defined in Westinghouse Letter Report NSD-JLH-6146 to be 42% throughwall. Conservatively, South Texas will plug 40% sleeve wall degradation as determined by eddy current.

The effect of sleeving and plugging will remain below the plugging limit assumed in [the] Chapter 15 accident analysis of the South Texas Project Safety Analysis Report. The proposed change will not increase the consequences of these accidents.

The results of the analyses and testing demonstrate the laser welded sleeve is an acceptable means of maintaining tube integrity. Further, per Regulatory Guide 1.83 recommendations, the sleeved tube can be monitored through periodic inspections with present non-destructive examination techniques. These measures demonstrate installation of sleeves spanning degraded areas of the tube will restore the tube to a condition consistent with its original design basis.

Conformance of the sleeve design with the applicable sections of the ASME Code and results of the leakage and mechanical tests, support the conclusion that installation of laser welded sleeves does not increase the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

Sleeving will not adversely affect any plant component. Stress and fatigue analysis of the repair has shown the ASME Code and Regulatory Guide 1.121 criteria are not exceeded. Implementation of laser welded sleeving maintains overall tube bundle structural and leakage integrity at a level consistent with that of the original tubing during all plant conditions. Leak and mechanical testing of sleeves support the conclusions of the calculations that each sleeve joint retains both structural and leakage integrity during all conditions. Sleeving of tubes does not provide a mechanism resulting in an accident outside of the area affected by the sleeves. Any accident as a result of potential tube or sleeve degradation in the repaired portion of the tube is bounded by the existing tube rupture accident analysis.

Implementation of laser welded sleeving will reduce the potential for primary-to-secondary leakage during a postulated steam line break while not significantly impacting available primary coolant flow area in the event of a LOCA [loss of coolant accident]. By effectively isolating degraded areas of the tube through repair, the potential for steam line break leakage is reduced. These degraded intersections are returned to a condition consistent with the Design Basis. While the installation of a sleeve reduces primary coolant flow, the reduction is far below that caused by plugging. Therefore, far greater primary coolant flow area is maintained through sleeving versus plugging.

Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

3. Does the change involve a significant reduction in a margin of safety?

The laser welded sleeve repair of degraded steam generator tubes has shown by analysis to restore the integrity of the tube bundle consistent with its original design basis condition (i.e., tube/sleeve operational and faulted condition stresses are bounded by the ASME Code requirements and the repaired tubes are essentially leaktight). The safety factors used in the design of the sleeves for the repair of degraded tubes are consistent with the safety factors in the ASME Code used in steam generator design. The portions of the installed sleeve assembly which represent the reactor coolant pressure boundary can be monitored for the initiation and progression of sleeve/tube wall degradation, thus satisfying the requirements of Regulatory Guide 1.83. The portion of the tube bridged by the sleeve is effectively removed from the pressure boundary, and the sleeve then forms the new pressure boundary. The areas of the sleeved tube assembly which require inspection are defined in WCAP-13698, Revision 2 and Westinghouse Letter Report NSD-JLH-6146.

The effect of sleeving and plugging will remain below the plugging limit assumed in [the] Chapter 15 accident analysis of the South Texas Project Safety Analysis. The change will not reduce the margin of safety for these accidents.

Provisional requirements cited in other Nuclear Regulatory Commission Safety Evaluation Reports addressing the implementation of sleeving have required the reduction of the individual steam generator normal operation primary-to-secondary leakage limit from 500 to 150 gpd [gallons per day]. Consistent with these evaluations, the South Texas Project will reduce the per steam generator leak rate limit of 500 gpd in Technical Specification 3.4.6.2.c to 150 gpd. The establishment of this leakage limit at 150 gpd provides additional safety margin.

Therefore, it is concluded that the proposed license amendment request does not result in a significant reduction in the margin of safety as defined in the South Texas Project Final Safety Analysis Report or 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 30 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 30-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 30-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 and provide for opportunity for a hearing after 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 20555-0001, 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 June 28, 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 Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, TX. 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 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 a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. 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.

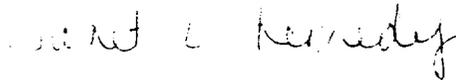
A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 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 W. D. Beckner: 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 20555-0001, and to Jack R. Newman, Esq., Morgan, Lewis & Bockius, 1800 M Street, N.W., Washington, DC 20036-5869, 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 May 17, 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 Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, TX.

Dated at Rockville, Maryland, this 22nd day of May 1996.

FOR THE NUCLEAR REGULATORY COMMISSION



Janet L. Kennedy, Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation