September 20, 1999

Mr. Raymond A. Mosley, Director
Office of the Federal Register
National Archives and Records Adminstration
7th and Pennsylvania Avenue, NW.
Washington, DC 20408

Dear Mr. Mosley:

The Nuclear Regulatory Commission is requesting emergency publication of the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing" for the Arkansas Nuclear One, Unit 1 (Docket No. 50-313) nuclear power plant which was transmitted to you on September 20, 1999. We request that this document be published Thursday, September 23, 1999. Publication on this date is necessary to ensure that the staff can issue its safety evaluation and amendment to permit the plant to begin startup and operations with a new steam generator tube repair methodology. Failure to publish this Notice as requested could cause unnecessary outage delays that would result in costs to the utility of approximately $460,000.00 per day. Your assistance will be greatly appreciated.

Sincerely,

ORIGINAL SIGNED BY

Robert A. Gramm, Chief, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project management
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosure: Notice

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UNITED STATES NUCLEAR REGULATORY COMMISSION

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT NO. 1

DOCKET NO. 50-313

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. DRP-51, issued to Entergy Operations, Inc. (the licensee), for operation of Arkansas Nuclear One, Unit 1 (ANO-1) located in Pope County, Arkansas.

This proposed change would amend Technical Specification (TS) 4.18.5.a.9 and its associated Bases to allow the use of steam generator repair roll technology (re-roll) as a repair method for tube defects identified in the steam generator upper tubesheet region. Tubes repaired by this proposed amendment would be allowed to remain in-service for one fuel cycle of operation through the end of fuel Cycle 16. This repair method would credit both the re-roll mechanical joint and the tube-to-tubesheet weld in demonstrating the pressure boundary capabilities and the structural integrity of the repair.

The Commission issued Amendment 190 to Operating License No. DRP-51 on April 10, 1998. This amendment provided the initial approval to use the re-roll methodology as an alternative to either sleeving or plugging steam generator tubes found during inservice inspections to have defects that exceed the stated repair criteria. The allowance to apply re-roll

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technology was based on Revision 00 to the Framatome Technologies Topical Report BAW-10232P, "OTSG [Once Through Steam Generator] Repair Roll Qualification Report (Including Hydraulic Expansion Evaluation)," dated January 1998. This report evaluated the acceptability of repairing a steam generator tube with a defect in the upper tubesheet region by mechanically rolling the tube into the upper tubesheet below the defect location. The repair roll provides a mechanical joint within the tubesheet bore creating a new pressure boundary, which removes the defect from service. The repair roll was qualified to provide a leakage barrier and structural integrity under worst case design conditions without crediting the original tube roll or the tube-to-tubesheet weld. The Commission's approval of Amendment 190 was based, in part, on the design criteria that the structural integrity of the repair roll was sufficient to carry the worst case design loading without relative motion between the tube and tubesheet.

On September 2, 1999, Framatome Technologies informed the licensee that Topical Report BAW-10232P, Revision 00 did not consider the small break loss-of-coolant accident (SMLOCA) as a limiting event. Further consideration has demonstrated that the SMLOCA is the limiting condition for structural integrity for tube-to-tubesheet re-rolls located in the outer periphery of the tubsesheet. Framatome Technologies has indicated that the re-roll is sufficient to adequately perform its design function to maintain pressure boundary and structural integrity. However, the re-roll joint is not sufficiently robust to prevent relative movement between the tube and tubesheet during the SBLOCA for all locations in the tubesheet. Framatome Technologies is currently developing an addendum to the topical report to address this condition. The licensee has evaluated the existing condition for tubes that have been repaired with the re-roll methodology using the guidance provided in Generic Letter No. 91-18, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions." However, based on this information, the licensee cannot use the repair method approved in Amendment 190 to perform any new repairs.

Therefore, the licensee submitted an application for an amendment to TS 4.18.5.a.9 to allow the use of a re-roll repair methodology that would credit both the re-roll joint and the tube-to-tubesheet weld in demonstrating the structural integrity and pressure boundary capabilities of the repair. This repair method would maintain the design criteria of no relative movement between the tube and tubesheet under worst case design loading. In addition, the licensee has provided criteria limiting the types and sizes of defects that this repair method can be used to ensure that the tube-to-tubesheet weld can be credited.

The licensee requested that this proposed amendment be processed as an exigent request, pursuant to Section 50.91(a)(6) of Title 10 of the *Code of Federal Regulations* (10 CFR). The exigency is created by the close proximity between the Framatome Technologies notification of the nonconservative design assumption in Topical Report BAW-10232P, Revision 00 and the ANO-1 refueling outage, which started on September 10, 1999. The failure of the Commission to act in a timely manner could result in the delayed restart of ANO-1 from its current refueling outage and/or cause unnecessary plugging of 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.

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:

> An evaluation of the proposed change has been performed in accordance with 10CFR50.91(a)(1) regarding no significant hazards considerations using the standards in 10CFR50.92(c). A discussion of these standards as they relate to this amendment request follows:
>
> Criterion 1 - Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated.
>
> Topical Report BAW-10232P, "OTSG Repair Roll Qualification Report (Including Hydraulic Expansion Evaluation)," Revision 00 was approved by the NRC in Amendment 190 to the ANO-1 operating license. This amendment allowed using the re-roll technology in the upper tubesheet region of the once through steam generators (OTSG) for the repair of defects in this region of the OTSG tubing. The re-roll established a new pressure boundary for ensuring leakage is within the design limits. The main steam line break (MSLB) was originally concluded to be the limiting accident with respect to tube structural integrity and leakage for the re-rolled tube joints. Subsequent to the approval of the report, the worst case accident for structural integrity of the re-roll joint was reevaluated to be the small break loss of coolant accident (SBLOCA). The leakage conclusions of Revision 00 of the topical report are conservative for the SBLOCA.
>
> Given the identified condition, to ensure the structural integrity of the joint for installation of new re-roll repairs during the current ANO-1 1R15 refueling outage, Entergy Operations will credit the tube to tubesheet weld and the OTSG tube above the re-roll. Sufficient structural margin will be provided to ensure that the tube will not sever within the tubesheet. Inspections of the tube area above the planned re-roll joint will be performed to ensure that defects that could affect the structural integrity of the tube will be removed from service by plugging. The potential offsite dose consequences due to MSLB leakage as discussed in BAW-10232P bound the SBLOCA event whereby the consequences of an accident are unchanged from that previously considered. By ensuring the load carrying capability of the tube above the re-roll and the tube to tubesheet weld, the probability of an accident is not increased.
>
> Therefore, this change does not involve a significant increase in the probability or consequences of any accident previously evaluated.
>
> Criterion 2 - Does Not Create the Possibility of a New or Different Kind of Accident from any Previously Evaluated.
>
> The limiting event for structural evaluation of the re-roll tube joint is now a SBLOCA. The additional differential dilation effects from reduced pressure in the steam generator tubes due to the SBLOCA can reduce the interface fit of the new joint. This could allow some potential displacement of the re-roll joint within the tubesheet. For ANO-1 Cycle 16 operations, the structural integrity of the tube will be ensured by crediting the load carrying capability of the OTSG tube above the re-roll and the tube to tubesheet weld.

Even though the limiting event for structural integrity of the re-roll joint was changed from a MSLB to a SBLOCA event, the effects on ANO-1 OTSG tube integrity and the adjacent tubes are not impacted. The re-roll joint will remain intact and will not create any new adverse conditions or accidents.

Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3 - Does Not Involve a Significant Reduction in the Margin of Safety.

The design requirement contained in BAW-10232P, Revision 00 for the re-roll repair joint was based on the joint carrying any normal operating or accident loads and any primary to secondary leakage through the joint is within design limits. The leakage considerations of the re-roll joint are not affected by the SBLOCA event and for this design criteria the MSLB is still the limiting event. Allowing credit for the existing weld and tube above the new re-roll repair, the design margin of the re-roll joint is not reduced and the safety margin for structural integrity is still maintained. There is no severance of the tube within the tubesheet and adjacent steam generator tubes are unaffected.

Therefore, this change does not involve a significant reduction in the margin of safety.

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 14 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 14-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 14-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 Chief, Rules and Directives Branch, Division of Administrative 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 6D59, 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 October 25, 1999, 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 Tomlinson Library, Arkansas Tech University, Russellville, Arkansas. 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 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. 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 Nicholas S. Reynolds, Esquire, Winston and Strawn, 1400 L Street, NW., Washington, DC 20005-3502, attorney for the licensee.

Nontimely filings of petitions for 'eave 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 September 19, 1999, 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 Tomlinson Library, Arkansas Tech University, Russellville, Arkansas.

Dated at Rockville, Maryland, this 20th day of September 1999.

FOR THE NUCLEAR REGULATORY COMMISSION

M. Christopher Nolan, Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation