

April 10, 2003

Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1-NOTICE OF CONSIDERATION OF
ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE,
PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION
DETERMINATION, AND OPPORTUNITY FOR A HEARING
(TAC NO. MB8382)

Dear Mr. Scalice:

Enclosed is a copy of the subject notice for your information. This notice relates to your amendment application for Watts Bar Nuclear Plant, Unit 1, dated April 8, 2003. The amendment would revise, for one time only, a portion of Surveillance Requirement (SR) 3.5.2.3 of the Watts Bar Technical Specifications for the emergency core cooling system (ECCS). The revision would extend, until the refueling outage in the fall of 2003, the verification that the ECCS safety injection hot leg injection lines are full of water. SR 3.5.2.3 currently requires a verification frequency of 31 days.

This notice has been sent to the Office of the Federal Register for publication.

Sincerely,

/RA/

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosure: Notice

cc w/encl: See next page

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DATE	04/09/2003	04/09/2003	04/10/2003

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-390

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-90, issued to Tennessee Valley authority (TVA the licensee), for operation of the Watts Bar Nuclear Plant (WBN), Unit 1, located in Rhea County, Tennessee.

The proposed amendment would revise, for one time only, a portion of Surveillance Requirement (SR) 3.5.2.3 of the Watts Bar Technical Specifications (TS) for the emergency core cooling system (ECCS). The revision would extend, until the refueling outage in the fall of 2003, the verification that the ECCS safety injection hot leg injection lines are full of water. SR 3.5.2.3 currently requires a verification frequency of 31 days.

The reason for the exigency is due to an emergent issue that occurred when recent ultrasonic testing of the safety injection system hot leg injection piping identified a quantity of gas at the piping high points. TVA stated that it could not have reasonably avoided this exigency. Until questions were raised on the way this SR was performed, TVA had no indication that the safety injection system hot leg injection lines had accumulated gas.

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. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The design function of the emergency core cooling system (ECCS) is to provide core cooling and reactivity control for various design bases accidents. With gas potentially entrained in the safety injection system hot leg injection piping, the primary considerations would be maintenance of adequate core cooling and prevention of water hammer resulting from initiation of flow to the reactor core for mitigation of a design basis event. In the event of a postulated large break loss of coolant accident (LBLOCA), the reactor coolant system (RCS) will de-pressurize rapidly, ECCS injection from the refueling water storage tank (RWST) will occur, followed by cold leg recirculation, and then hot leg recirculation. No flow will exist in the hot leg injection piping until hot leg recirculation is initiated.

TVA reviewed the Nuclear Steam Supply System (NSSS) vendor's previous bounding evaluation performed on the effects of injecting the nitrogen gas contained in the four safety injection system accumulators into the RCS following a LOCA. The mass of nitrogen for the accumulators assumed to be injected into the RCS is significantly greater than the mass of gas that could reasonably be expected to exist in the safety injection hot leg injection lines. Therefore, the injection of the postulated gas in the hot leg injection lines would have an insignificant effect on the cooldown of the RCS in the hot leg recirculation mode.

If a layer of gas existed, it would flow to the core by mixing with the water in the line. If a solid bubble were conservatively assumed with the RCS depressurized, the pressure from the pump would push any entrained gas to the RCS hot legs

as the hot leg injection valves opened and the safety injection pump came up to operating speed. The two separated water volumes would travel to the RCS hot legs at near the same velocity and would not impact one another. No significant water hammer would occur.

For the design basis small break LOCA (SBLOCA) and the SBLOCA that is smaller than the design basis 4-inch pipe size break, the hot leg swapover is the same, although delayed, for the SBLOCA scenario as for the LBLOCA. No significant water hammer would occur.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

No. The proposed change to the WBN TS and its associated bases do not introduce any new accident initiator mechanisms. The exclusion of hot leg injection piping from the ECCS water inventory surveillance does not cause the initiation of any accident nor create any new credible limiting single failure. Further, the change does not result in any event previously deemed incredible being made credible since, as discussed above, there are no new adverse impacts associated with the introduction of gas into the reactor core from those previously evaluated. Further, there is no adverse impact created by a potential water hammer situation.

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

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

No. The exclusion of safety injection system hot leg injection piping from the ECCS water inventory surveillance does not result in a condition where the design, material, and construction standards that were acceptable prior to this change are altered. The potential to introduce gas from the hot leg injection piping into the reactor core during postulated large and small break LOCA accidents does not adversely affect design assumptions for emergency core cooling or reactivity control. Since adverse water hammer events are not postulated, the proposed changes to TS and its associated Bases will have no affect on the availability, operability, or performance of the WBN ECCS systems. Therefore, the subject change does not involve a significant reduction in 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. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland.

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

By May 16, 2003, 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, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, and available electronically on the Internet at the NRC Web site <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. 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, located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, by the above date. Because of continuing disruptions in delivery of mail to United States Government offices, it is requested that petitions for leave to intervene and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to hearingdocket@nrc.gov. A copy of the request for hearing and petition for leave to intervene should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and because of continuing disruptions in delivery of mail to United States Government offices, it is requested that copies be transmitted either by means of facsimile transmission to 301-415-3725 or by e-mail to OGCMailCenter@nrc.gov. A copy of the request for hearing and petition for leave to intervene should also be sent to General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, ET 11A, Knoxville, Tennessee 37902, 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 8, 2003, which is available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC web site <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland, this 10th day of April 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
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WATTS BAR NUCLEAR PLANT

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