

August 2, 1996

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

CORRECTED VERSION (8/15/96)
Date of 8/2/96 added to the
last page of the Enclosure.

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT
(TAC NO. M96231)

Dear Mr. Kingsley:

The Commission has forwarded a "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing to the Office of Federal Register for publication. A copy is enclosed for your information.

This notice relates to your application dated July 31, 1996, to amend the Watts Bar Nuclear Plant, Unit 1 Technical Specification 3.6.12 to allow a one-time extension of the three month surveillance requirements for the ice condenser lower inlet doors for approximately 40 days.

Sincerely,

Original signed by Ronald W. Hernan for

Robert E. Martin, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosure: Notice of Consideration of
Issuance of Amendment

cc w/enclosure: See next page

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Mr. Oliver D. Kingsley, Jr.
Tennessee Valley Authority

WATTS BAR NUCLEAR PLANT

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WATTS BAR NUCLEAR PLANT, UNIT 1

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

The proposed amendment would change Technical Specification (TS) 3.6.12 to allow a one-time extension of the three month surveillance requirement (SR) for the ice condenser lower inlet doors to coincide with the plant mid-cycle outage. Specifically, this proposed amendment would add notes to SRs 3.6.12.3, 3.6.12.4, and 3.6.12.5 and their respective bases to state, "The 3-month performance due September 9, 1996, (per SR 3.0.2) may be extended until October 21, 1996.

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) Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The four previous performances of SR 3.6.12.3 and 3.6.12.4 have all been successful. The most recent performance of SR 3.6.12.5 on May 17, 1996, was successful. However, because a previous performance of SR 3.6.12.5 on May 13, 1996, had identified several doors which did not pass portions of the surveillance, the results of the May 13, 1996, performance were reviewed in detail.

Conduct of the May 13, 1996, surveillance yielded initial "as-found" test results which indicate that 15 of the 48 lower inlet doors did not meet the 40 degrees open position opening torque 13 by an average of 2.8 percent, one by 13 percent and one by 23 percent). This has been evaluated by TVA and Westinghouse as to the potential effect on current design basis analysis. The review also addressed three doors which exceeded the overall friction criteria by 0.3 percent. The evaluation consisted of a review of the Subcompartment analysis, Long-Term LOCA [loss-of-coolant accident] Containment analysis, Long-Term MSLB [main steamline break] Containment analysis, Maximum Reverse Differential Pressure analysis, and Deck Bypass. The result of these analyses, indicates that the "as-found" deviations in ice condenser inlet door opening performance are still bounded by the current licensing design basis containment related accident analysis. In addition, since the "as-left" conditions were within the TS requirements and a subsequent performance on May 17, 1996, did not identify any deficiencies, justification exists to allow extension of the 3-month surveillance for the ice condenser lower inlet doors until the plant mid-cycle outage scheduled for October 1996.

Other considerations to support this justification for surveillance extension, are the initial ice mass relative to TS requirements in the WBN ice condenser, and the probability of core damaging small break LOCAs requiring Ice Condenser function during the extension period.

In a supplemental letter dated April 15, 1996, regarding WBN's Ice Bed and Flow Channel inspection Surveillance Frequencies amendment request, TVA documented the initial ice loading for the WBN unit

ice condenser was 2,877,685 lbs. This value is 473,885 lbs more (about 20 percent) than the currently approved TS value of 2,403,800 lbs provided for an 18-month surveillance interval, and 752,685 lbs greater (about 31 percent) than the safety analysis value of 2,125,000 lbs. For the LBLOCA [large break loss-of-coolant accident] the doors would have been expected to open as designed, considering that all surveillances since fuel load have indicated that all doors passed the (SR) 3.6.12.4 test requiring an opening torque of 675 inch lbs.

For the small break LOCA, door opening torque at the 40 degrees open position becomes important to avoid steam maldistribution effects. As stated previously, one surveillance had two doors that did not meet the torque criteria for the mid position by 13 percent and 23 percent, respectively (one of two bay 3 doors and one of two bay 5 doors). Several doors also exceeded the criteria by an average of only 2.8 percent. Neglecting these minor exceedances, and conservatively assuming both bay 3 and both bay 5 doors did not open, only 162 ice baskets representing 240,442 lbs of ice would have been unavailable during the event. This is considerably less than the excess margin of ice above the TS requirement for the more challenging large break LOCA. This margin would allow for the failure of 8 doors associated with 4 additional bays. In addition, total blockage would not be likely since the steam/air mixture would reach the impacted bays from adjacent bays or via the operational doors in the two bays of interest. Therefore, it is concluded that the exceedances observed were not significant for the small break LOCA.

Another consideration for surveillance interval extension, is the likelihood of the need for the tested components during the period of the extension. In order to quantify the potential for a SBLOCA [small break loss-of-coolant accident] occurring during the 42 day period of time being requested for the extension of the 3-month surveillance interval, the probability of selected initiating events resulting in core damage occurring during the period was evaluated. During the 42-day period, the probability of small LOCAs resulting core damage was $1.3E-06$, and the probability of small break LOCAs requiring ice condenser function was $3.3E-03$. Therefore, operation of the facility in accordance with the proposed amendment (extension of the 3-month surveillance for the ice condenser lower inlet doors until the plant mid-cycle outage scheduled for October 1996), when considering the magnitude of the deviations observed in the May 13, 1996, surveillance testing, the sensitivity to the containment related analysis, and other physical/technical considerations discussed in the preceding text, would not involve a significant increase in the probability of an accident previously evaluated nor their respective consequences.

- (2) Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed extension of the surveillance interval affects only the operability confidence associated with the lower ice doors. It has no impact on systems or components, the failure of which could initiate a new design basis accident. It is concluded, therefore, that no new or different kind of accident from any accident previously evaluated is created by the proposed amendment.

- (3) Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in margin of safety.

The preceding text (No significant Hazards Consideration Determination questions 1 & 2) covers TVA's evaluation of test data from the May 13, 1996, surveillance. This evaluation addresses the associated LOCAs requiring the ice condenser function, and the comparison of the initial WBN ice condenser ice loading versus maximum potential loss of ice bed usage. This discussion is applicable to the review to determine if a significant reduction in margin of safety will occur with operation of the WBN facility in accordance with the proposed amendment.

This review determined that there would have been essentially no unavailability of the lower inlet doors for a LBLOCA. For the conditions found, the current TS ice mass of 2,403,800 lbs would have still been met, with the margin between TS and design basis ice mass of 2,125,000 lbs still maintained. For smaller breaks, the additional ice would more than make up for any maldistribution caused by any friction increase in the doors.

A Westinghouse evaluation of the deficiencies identified during the May 13, 1996, surveillance performance indicates that substantial margin exists for the licensing basis subcompartment analysis, Long-Term LOCA Containment Integrity analysis, Long-Term MSRB Containment Integrity analysis, Maximum Reverse Differential Pressure analysis, and concludes that the current licensing analyses remain bounding even without the immediate correction and subsequent reverification on May 17, 1996. Therefore, the proposed amendment would not result in a significant reduction in the margin of safety.

In order to quantify the potential for a SBLOCA during the period of time being requested for extension of the 3-month surveillance

interval, the probability of selected initiating events which result in core damage occurring during the period was evaluated. For the probability of selected small break LOCAs resulting in core damage, the probability was $1.3E-06$ and for probability of a small break LOCA was $3.3E-03$. These event probabilities are small enough to conclude that the margin of safety has not been decreased by the proposed amendment.

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 Chief, 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 September 9, 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 Chattanooga-Hamilton County Library, 1001 Broad Street, Chattanooga, Tennessee 37402. 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 Mr. Frederick J. Hebdon: 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 General Council, Tennessee Valley Authority, ET 10H, 400 West Summit Hill Drive, 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 July 31, 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 Chattanooga-Hamilton County Library, 1001 Broad Street, Chattanooga, Tennessee.

Dated at Rockville, Maryland, this 2nd day of August 1996.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Ronald W. Hernan", followed by a long horizontal flourish.

Ronald W. Hernan, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation