UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 25, 2008

Mr. William R. Campbell, Jr.
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 – ISSUANCE OF AMENDMENT REGARDING TECHNICAL SPECIFICATION 3.4.15, "RCS [REACTOR COOLANT SYSTEM] LEAKAGE DETECTION INSTRUMENTATION" (TAC NO. ME0106)

Dear Mr. Campbell:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 71 to Facility Operating License No. NPF-90 for Watts Bar Nuclear Plant (WBN), Unit 1. This amendment is in response to your application dated November 12, 2008 (Agencywide Document and Access Management System Accession No. ML083170861).

The amendment changes the WBN Technical Specification (TS) 3.4.15, "RCS Leakage Detection Instrumentation," by removing the requirement for one operable containment atmosphere gaseous radioactivity monitor.

A copy of the safety evaluation is also enclosed. Notice of issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

John G. Lamb, Senior Project Manager
Watts Bar Special Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosures: 1. Amendment No. 71 to NPF-90
2. Safety Evaluation

cc w/enclosures: Distribution via Listserve

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-390

WATTS BAR NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 71
License No. NPF-90

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated November 12, 2008, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

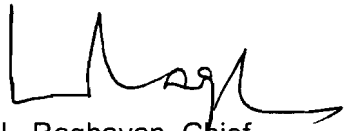
2. Accordingly, the license is amended by changes to the Technical Specifications and Facility Operating License as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-90 is hereby amended to read as follows:

   (2) Technical Specifications and Environmental Protection Plan

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 71, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. TVA shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, and shall be implemented no later than 5 days from the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



L. Raghavan, Chief
Watts Bar Special Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Operating License and
Technical Specifications

Date of Issuance: November 25, 2008

ATTACHMENT TO AMENDMENT NO. __

FACILITY OPERATING LICENSE NO. NPF-90

DOCKET NO. 50-390

Replace Page 3 of Operating License NPF-90 with the attached Page 3.

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contain vertical lines indicating the area of change.

Remove Page	Insert Page
3.4-36	3.4-36
3.4-37	3.4-37
3.4-38	3.4-38

(4) TVA, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis, instrument calibration, or other activity associated with radioactive apparatus or components; and

(5) TVA, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.

(1) Maximum Power Level

TVA is authorized to operate the facility at reactor core power levels not in excess of 3459 megawatts thermal.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A as revised through Amendment No. 71 and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. TVA shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Safety Parameter Display System (SPDS) (Section 18.2 of SER Supplements 5 and 15)

Prior to startup following the first refueling outage, TVA shall accomplish the necessary activities, provide acceptable responses, and implement all proposed corrective actions related to having the Watts Bar Unit 1 SPDS operational.

(4) Vehicle Bomb Control Program (Section 13.6.9 of SSER 20)

During the period of the exemption granted in paragraph 2.D.(3) of this license, in implementing the power ascension phase of the approved initial test program, TVA shall not exceed 50% power until the requirements of 10 CFR 73.55(c)(7) and (8) are fully implemented. TVA shall submit a letter under oath or affirmation when the requirements of 73.55(c)(7) and (8) have been fully implemented.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.15 RCS Leakage Detection Instrumentation

LCO 3.4.15 The following RCS leakage detection instrumentation shall be OPERABLE:

a. One containment pocket sump level monitor; and

b. One lower containment atmosphere particulate radioactivity monitor.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required containment pocket sump level monitor inoperable.	A.1 Perform SR 3.4.13.1. AND	Once per 24 hours
	A.2 Restore required containment pocket sump level monitor to OPERABLE status.	30 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required containment atmosphere particulate radioactivity monitor inoperable.	B.1.1 Analyze grab samples of the containment atmosphere. OR	Once per 24 hours
	B.1.2 Perform SR 3.4.13.1. AND	Once per 24 hours
	B.2 Restore required containment atmosphere particulate radioactivity monitor to OPERABLE status.	30 days
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND	6 hours
	C.2 Be in MODE 5.	36 hours
D. All required monitors inoperable.	D.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.15.1	Perform CHANNEL CHECK of the required containment atmosphere particulate radioactivity monitor.	12 hours
SR 3.4.15.2	Perform COT of the required containment atmosphere particulate radioactivity level monitor.	92 days
SR 3.4.15.3	Perform CHANNEL CALIBRATION of the required containment pocket sump level monitor.	18 months
SR 3.4.15.4	Perform CHANNEL CALIBRATION of the required containment atmosphere particulate radioactivity monitor.	18 months

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 71 TO FACILITY OPERATING LICENSE NO. NPF-90

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-390

1.0 INTRODUCTION

By letter dated November 12, 2008 (Agencywide Document and Access Management System Accession No. ML083170861), the Tennessee Valley Authority (TVA or the licensee), submitted a request to change the Watts Bar Nuclear Plant (WBN), Unit 1, Technical specifications (TSs). The proposed change would revise TS 3.4.15, "RCS [reactor coolant system] Leakage Detection Instrumentation," regarding the containment atmosphere radioactivity monitor.

As discussed in the licensee's application, dated November 12, 2008, TVA requested that the proposed amendment be processed by the U.S. Nuclear Regulatory Commission (NRC) staff on an exigent basis in accordance with provisions in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.91(a)(6). The NRC staff evaluation regarding the exigent circumstances is discussed below in the Safety Evaluation (SE) Section 4.0.

2.0 REGULATORY EVALUATION

The WBN Unit 1 was designed to meet the intent of the "Proposed General Design Criteria for Nuclear Power Plant Construction Permits" published in July 1967. The WBN Unit 1 construction permit was issued in January 1973. The WBN Unit 1 Updated Final Safety analysis Report (UFSAR) addresses the NRC General Design Criteria (GDC) published as Appendix A to 10 CFR 50 in July 1971, including Criterion 4 as amended October 27, 1987.

GDC 30, "Quality of reactor coolant pressure boundary," of Appendix A to 10 CFR Part 50, addresses in part, the provision of means for detecting and, to the extent practical, identifying the location of the source of reactor coolant leakage. Regulatory Guide (RG) 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," Revision 0 (ADAMS Accession No. ML003740113), describes acceptable methods of implementing GDC 30 with regard to the selection of leakage detection systems for the reactor coolant pressure boundary (RCPB). Position C.3 of RG 1.45, Revision 0, states that at least three different detection methods should be employed. Two of these methods should be sump level and flow monitoring and airborne particulate radioactivity monitoring. The third method may involve either monitoring of condensate flow rate from air coolers or monitoring of gaseous radioactivity.

RG 1.45, Revision 0, recommended that the sensitivity and response time of each leakage detection system employed for unidentified leakage should be adequate to detect a leakage rate, or its equivalent, of 1 gallon per minute (gpm) in less than 1 hour.

In May 2008, the NRC staff issued Revision 1 to RG 1.45 (ADAMS Accession No. ML073200271). Section B, "Discussion," of RG 1.45, Revision 1, describes that the effectiveness of airborne gaseous radioactivity monitors depends primarily on the activity of the reactor coolant and also, in part, on the containment volume and the background activity level. Because of improvements in fuel integrity, many operating plants have reported experiencing very long gaseous radioactivity monitor response times to RCS leakage, considering realistic coolant activities. Accordingly, Position C.2.3 of RG 1.45, Revision 1, states that plant TSs should identify at least two independent and diverse methods and recommends considering the following leakage detection methods for incorporation in the TSs: monitoring containment sump level or flow; monitoring airborne particulate radioactivity; and monitoring condensate flow rate from air coolers. That position also recommended considering several other methods for supplemental detection of leakage, including containment gaseous radioactivity monitoring.

The WBN Unit 1 RCS leakage detection systems consist of a containment atmosphere particulate radioactivity monitoring system (upper and lower), a containment atmosphere gaseous radioactivity monitoring system (upper and lower), as well as the containment sump level and sump pump instrumentation. The containment atmosphere particulate radioactivity monitoring system and the containment atmosphere gaseous radioactivity monitoring system are used as part of the RCPB leakage detection system. These two systems provide indirect measurement of RCS leakage. The containment airborne gaseous and particulate radioactivity monitoring systems continuously monitor samples from the containment atmosphere, which are drawn outside the containment in a closed system. The particulate activity increase is related to the magnitude of RCPB leakage into the containment.

In Section 5.2.7, "RCPB Leakage Detection Systems," of the WBN Unit 1 UFSAR states the following:

> The leakage detection systems comply with the intent of NRC General Design Criterion 30 and Regulatory Guide 1.45. These systems provide a means of detecting, to the extent practical, leakage from the RCPB.

The WBN RCPB leakage detection system is based on a diverse set of leakage detection methods. As discussed in Section 5.2.7 of the UFSAR, these detection methods can include containment particulate radiation monitors, containment radioactive gas monitors, humidity monitors, reactor vessel flange leak-off detectors, condenser vacuum pump radiation monitors, component cooling system radiation monitors, steam generator blowdown radiation monitors, charging pump operation and excessive makeup volume detection, main steam line radiation monitors, and the reactor building floor and equipment drain sump level monitors.

Standard Review Plan (SRP) 5.2.5, "Reactor Coolant Pressure Boundary Leakage Detection," Revision 2 (ADAMS Accession No. ML070610277), states that the acceptance criteria for GDC 30 is based on meeting the guidelines of RG 1.45.

GDC 4 allows the use of analyses reviewed and approved by the NRC staff to eliminate from the design basis the dynamic effects of the pipe ruptures postulated in SRP Section 3.6.2, "Determination of Rupture Locations and Dynamic Effects Associated with Postulated Rupture of Piping," Revision 2 (ADAMS Accession No. ML070660494). The NRC staff reviewed and approved the main RCS piping and certain branch piping submitted from TVA to eliminate these dynamic effects. A NRC staff approved leak-before-break (LBB) analysis permitted TVA to remove protective hardware such as pipe whip restraints and jet impingement barriers, redesign pipe connected components, their supports and their internals, and other related changes in

WBN Unit 1. The NRC staff's review ensured that adequate consideration had been given to direct and indirect pipe failure mechanisms and other degradation sources which could challenge the integrity of piping. The NRC staff reviewed the direct pipe failure mechanisms and fracture mechanics analyses.

The WBN Unit 1 UFSAR Section 3.6A.2.1.5, "Leak-Before-Break Application," identifies that the NRC staff accepted LBB analyses for several piping segments at WBN Unit 1, including the main RCS piping and certain branch piping. In accepting these LBB analyses, the NRC staff considered the performance of the available leak detection systems. GDC 4 states that ". . . dynamic effects associated with postulated pipe ruptures in nuclear power units may be excluded from the design basis when analyses reviewed and approved by the Commission demonstrated that the probability of fluid system piping rupture is extremely low under conditions consistent with the design basis for the piping . . . ." The NRC allows the application of LBB technology on the primary piping systems under the broad-scope revision to 10 CFR Part 50, Appendix A, GDC 4 (52 FR 41288, October 27, 1987). Specific guidance on LBB evaluation is discussed in SRP Section 3.6.3, "Leak-Before-Break Evaluation Procedures," Revision 1 (ADAMS Accession No. ML063600396). SRP 3.6.3, Revision 1, specifies that leak detection systems be reliable, redundant, diverse and sensitive, and that substantial margin exists to detect the leakage from the through-wall flaw used in the deterministic fracture mechanics evaluation.

3.0 TECHNICAL EVALUATION

3.1 Specific Changes Requested

The requested changes would modify TS 3.4.15, "RCS Leakage Detection Systems," at WBN Unit 1 to remove the operability requirement for the containment atmosphere gaseous radioactivity monitor, leaving the requirement for one containment atmosphere particulate radioactivity monitor and one containment pocket sump level monitor to be operable in Modes 1, 2, 3, and 4. The licensee also proposed corresponding changes to the associated surveillance requirements (SRs).

These proposed changes are consistent with the guidance of Regulatory Position C.2.3 of RG 1.45, Revision 1 and NUREG-1431, "Standard Technical Specifications – Westinghouse Plants," Revision 3. Since the proposed changes meet the guidelines of RG 1.45, Revision 1, the SRP 5.2.5, Revision 2, acceptance criteria are met for GDC 30. Therefore, the NRC staff finds the proposed changes to TS LCO 3.4.15 acceptable.

3.2 Leak-Before-Break

The basic concept of LBB is that certain piping material has sufficient fracture toughness (i.e., ductility) to resist rapid flaw propagation. A postulated flaw in such piping would not lead to pipe rupture and potential damage to adjacent safety related systems, structures and components before the plant could be placed in a safe, shutdown condition. Before pipe rupture, the postulated flaw would lead to limited but detectable leakage that would be identified by the leak detection systems in time for the operator to take action.

The NRC staff reviews the application of LBB methodology to primary system piping to ensure that certain safety margins are satisfied to assure the structural integrity of the pipe. SRP Section 3.6.3, Revision 1, specifies a margin of the square-root of 2 be applied to the loads to assure that leakage-size flaws are stable at the normal load, plus safe-shutdown earthquake

load. A margin of 10 is to be applied to leakage so that detection of leakage from the postulated flaw size is ensured when the pipe is subjected to normal operational loads. In addition, the critical flaw size should be twice as large as the leakage flaw size (i.e., a margin of 2 on leakage flaw size). SRP 3.6.3, Revision 1, also specifies that leakage detection systems for LBB applications be sufficiently redundant, diverse, and sensitive. It further specifies that leak detection systems for LBB applications be equivalent to RG 1.45, Revision 1, for piping inside the containment. RG 1.45, Revision 1, specifies a time-frame of 1 hour or less to detect a 1 gpm leak. This time-frame ensures that plant operators have timely information about unidentified leakage.

The NRC staff notes that TVA is not changing assumptions and technical basis of its LBB analyses of the RCS piping in this licensing amendment, other than the proposed changes to leakage detection systems. In support of the licensing amendment of removing the gaseous radiation monitors, TVA indicated that the integrated leak detection systems are capable of detecting a primary system leak rate of 1 gpm in approximately 1 hour. Even if the diversity of the leak detection systems is reduced by lack of sufficient primary system activity to credit operation of the gaseous radiation monitors discussed in Section 5.2.7.3 of the UFSAR, sufficient diversity and sensitivity exist in the remaining portions of the leak detection systems to meet the design basis leak detection requirement (1 gpm in approximately 1 hour). As discussed in Section 5.2.7 of the UFSAR, these detection methods can include containment particulate radiation monitors, containment radioactive gas monitors, humidity monitors, reactor vessel flange leak-off detectors, condenser vacuum pump radiation monitors, component cooling system radiation monitors, steam generator blowdown radiation monitors, charging pump operation and excessive makeup volume detection, main steam line radiation monitors, and the reactor building floor and equipment drain sump level monitors.

The NRC staff finds that with the aforementioned multiple monitors the ability to detect a leakage rate of 1 gpm in approximately 1 hour is ensured and maintained, even if the gaseous radiation monitors are not considered. The NRC staff finds further that the 1 gpm per hour capability of the WBN detection system satisfies the recommended factor of 10 in SRP 3.6.3, and NUREG-1061, Volume 3, "Report of the NRC Piping Review Committee, Evaluation of Potential Pipe Breaks".

The NRC staff notes that TVA has maintained the continued ability of the RCS leakage detection system to detect a 1 gpm primary system leak in approximately 1 hour when no credit is taken for the gaseous radiation monitors and all safety margins specified in SRP 3.6.3. The lack of gaseous radiation monitor detection associated with low RCS activity does not affect the WBN licensing basis for the LBB methodology of the RCS piping. Therefore, the NRC staff finds the proposed changes to TS LCO 3.4.15 acceptable in terms of LBB consideration.

3.3 Summary

The NRC staff has reviewed the licensee's submittal and supporting documentation. Based on its review, the NRC staff concludes that the required RCS leakage detection systems will continue to provide diverse methods of leak detection that satisfy the intent of GDC 30 and RG 1.45 as described by the WBN Unit 1 UFSAR. The required leakage detection capability is adequate to support the application of the LBB methodology at WBN Unit 1. Therefore, the proposed changes to TS 3.4.15 for the deletion of the containment atmosphere gaseous radiation monitor are acceptable. On this basis, the NRC staff concludes that the proposed TS changes are acceptable.

4.0 EXIGENT CIRCUMSTANCES

Background

The Commission's regulations in 10 CFR 50.91 contain provisions for issuance of amendments when the usual 30-day public comment period cannot be met. One of these provisions is an exigency. An exigency is a case where the licensee and the NRC staff must act quickly and there is insufficient time to process the license amendment request within the normal time-frame. Pursuant to the provisions in 10 CFR 50.91(a)(6), the licensee requested the proposed amendments on an exigent basis.

Under the provisions in 10 CFR 50.91(a)(6), the Commission notifies the public in one of two ways: (1) by issuing a *Federal Register* notice providing an opportunity for hearing and allowing at least 2 weeks from the date of the notice for prior public comments; or (2) by using local media to provide reasonable notice to the public in the area surrounding the licensee's facility. In this case, the Commission used the second approach and published a public notice in the local newspaper, *The Herald-News* (Dayton, Tennessee), on November 19, 2008.

As discussed in the licensee's application dated November 12, 2008, TVA requested that the proposed amendment be processed by the NRC staff on an exigent basis based on the recent identification of this issue and the significant impact it has on shutting down WBN Unit 1

Identification of the Issue

On October 29, 2008, TVA entered LCO 3.4.15.C for an inoperable gaseous radiation monitor channel since the monitor was unable to detect a 1-gpm RCS leak within an hour under current plant conditions, which has a 30-day action statement. The NRC staff held a conference call with TVA on November 7, 2008, to gather information regarding the licensee's plans. Based on this call, the licensee determined that a license amendment request was needed. TVA submitted the amendment request to the NRC on November 12, 2008.

Impact on Shutting down WBN Unit 1

In the licensee's application, dated November 12, 2008, TVA requested that the proposed amendment be processed by the NRC staff on an exigent basis in accordance with provisions in 10 CFR 50.91(a)(6) to avoid an unnecessary plant shutdown. Improvements in nuclear fuel reliability over time have resulted in the reduction of effectiveness of the containment gaseous radiation monitors in detecting very small leaks and changes in leak rate. While this containment gaseous radiation monitor continues to provide leakage detection and trending capability, improvements in nuclear fuel reliability over time have resulted in baseline RCS coolant radioactivity being reduced to a level far below that used for original design specification for these monitors. Under these circumstances, the licensee needs to change the TS.

NRC Staff Conclusion

Based on the above circumstances, the NRC staff finds that the licensee made a timely application for the proposed amendment following identification of the issue. In addition, the NRC staff finds that the licensee could not avoid the exigency without shutting down WBN Unit 1. Based on these findings, the NRC staff has determined that a valid need exists for issuance of the license amendment using the exigent provisions of 10 CFR 50.91(a)(6).

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a proposed license amendment involves no significant hazards considerations if 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), an evaluation of the issue of no significant hazards consideration is presented below:

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

   Response: No.

   The proposed change has been evaluated and determined to not increase the probability or consequences of an accident previously evaluated. The proposed change does not make any hardware changes and does not alter the configuration of any plant system, structure or component (SSC). The containment atmosphere gaseous radioactivity monitor is not credited for use in the initiation of any automatic protective functions. The proposed change only removes the containment atmosphere gaseous radioactivity monitor for meeting the operability requirements for TS 3.4.15. Therefore, the probability of occurrence of an accident is not increased. The TS will continue to require diverse means of leakage detection equipment, thus ensuring that leakage due to cracks would continue to be identified prior to breakage and the plant shutdown accordingly. Therefore, the consequences of an accident are not increased.

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

   Response: No.

   The proposed change does not involve the use or installation of new equipment and the currently installed equipment will not be operated in a new or different manner. No new or different system interactions are created and no new processes are introduced. The proposed changes will not introduce any new failure mechanisms, malfunctions, or accident initiators not already considered in the design and licensing bases. The proposed change does not affect any SSC associated with an accident initiator. Based on this evaluation, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

The proposed change does not make any alteration to any RCS leakage detection components. The proposed change removes the gaseous channel of the containment atmosphere radioactivity monitor from TS 3.4.15. The proposed amendment continues to require diverse means of leakage detection equipment with capability to promptly detect RCS leakage. Additional diverse means of leakage detection capability are available, although not provided in TS. Based on this evaluation, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above evaluation, the NRC staff concludes that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendments and that the amendments should be issued as allowed by the criteria contained in 10 CFR 50.91.

6.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee state official was notified of the proposed issuance of the amendment. The State official had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes SRs. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final determination that no significant hazards consideration is involved for the proposed amendments as discussed above in SE Section 5.0. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

8.0 CONCLUSION

The Commission has concluded, on the basis of the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal contributors: S. Jones
J. Tsao
J. Lamb

Date: November 25, 2008