



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

February 1, 2008

10 CFR 50.55a

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Washington, D.C. 20555-0001

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-391

WATTS BAR NUCLEAR PLANT (WBN) UNIT 2 - REQUEST TO USE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL CODE, CODE CASE N-520-2, "ALTERNATIVE RULES FOR RENEWAL OF ACTIVE OR EXPIRED N-TYPE CERTIFICATES FOR PLANTS NOT IN ACTIVE CONSTRUCTION, SECTION III, DIVISION 1"

Pursuant to 10 CFR 50.55a(a)(3)(i), TVA requests approval for the use of the provisions of approved ASME Code Case N-520-2, "Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction, Section III, Division 1." This Code Case will be applied for specific use as part of the construction activities associated with the ASME Section III systems and components in WBN Unit 2.

Enclosure 1 provides TVA's request for relief to use the proposed alternative Code Case. Review of the use of this relief is requested to be completed in a time frame to facilitate preparations for the ASME survey of WBN Unit 2 program and process as part of TVA's application for a temporary Certificate of Authorization to allow for the completion of Code documentation for previously completed work. This survey is currently anticipated for August of 2008. Preparations for the restart of ASME Section III construction, fabrication, and installation activities on WBN Unit 2 and the associated ASME Section III certification surveys are already underway with the award of a contract to a subcontractor who can obtain the appropriate Code Symbol Stamps to complete the construction of WBN Unit 2.

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If you have any questions in this matter, please contact Gordon Arent, Manager of Watts Bar Unit 2 Nuclear Licensing and Industry Affairs at (423) 365-2004.

Sincerely,


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ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNIT 2 - REQUEST FOR RELIEF TO USE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL CODE, CODE CASE N-520-2, "ALTERNATIVE RULES FOR RENEWAL OF ACTIVE OR EXPIRED N-TYPE CERTIFICATES FOR PLANTS NOT IN ACTIVE CONSTRUCTION, SECTION III, DIVISION 1"

Executive Summary:

Pursuant to 10 CFR 50.55a(a)(3)(i), TVA is requesting approval for the use of the provisions of ASME Code Case N-520-2, "Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction, Section III, Division 1." This Code Case will be applied for specific use as part of the construction activities associated with the completion of ASME Section III systems and components in WBN Unit 2. Code Case N-520-2 will allow TVA to obtain a temporary Certificate of Authorization from ASME to complete and transfer documentation of the partially completed ASME Section III systems and components, to the jurisdiction of a subcontractor who will be an ASME Section III N Certificate Holder. This will allow the subcontractor to complete the construction of the WBN Unit 2 systems and complete the associated N-5 Code Data Reports to certify that the systems were constructed in accordance with ASME Section III, and will further allow TVA to document completion of Unit 2 as part of the Owner's Section III required responsibilities at the time the unit construction is finished.

Prior to Revision 2 to Code Case N-520-1, the transfer of the ASME Section III system documentation was only allowed between one N-type certificate holder to another N-type certificate holder, both of which had to hold current and effective certificates. Use of Code Case N-520-2 will allow TVA to complete documentation and provide to the subcontracted N Certificate Holder partially completed N-5 Code Data reports for those systems and components which were already installed in accordance with the requirements of the ASME Section III rules. Construction activities in accordance with the ASME Section III rules were allowed at WBN Unit 2 through October 25, 1996, at which time TVA's ASME Section III Quality Assurance Manual was revised to exclude its applicability to Unit 2. Work on the WBN Unit 2 ASME Section III safety-related systems and components, performed prior to this date, was supported by the ASME Section III Accreditation, Certification, and Authorization processes and TVA's quality assurance programs and procedures. However, N-5 Code Data Reports were not completed on most of the Unit 2 systems because the construction activities were not fully completed. The provisions of Code Case N-520-2 will allow the partially completed work to be properly documented through the issuance of "Partial N-5 Code Data Reports" which will then be transferred to TVA's subcontractor N Certificate Holder's jurisdiction for final completion and documentation of the entire system. TVA is not authorized to perform any physical work or repairs under the temporary Certificate of Authorization.

In this manner TVA, as the Owner of WBN Unit 2, will also be able to complete the N-3 Code Data Report to document the final completion of Unit 2 in accordance with ASME Section III, as required by 10 CFR 50.55a.

I. Systems and Components Affected

This request to use the ASME Section III Code Case N-520-2 will be applicable to the WBN Unit 2 safety-related systems and components required to be designed, fabricated, and constructed to the rules of the ASME Boiler and Pressure Vessel Code, Section III.

II. Applicable ASME Code Edition and Addenda

WBN Unit 2 ASME piping systems and components were designed and constructed to meet the 1971 Edition with addenda through the Summer 1973 Addenda (1971S73) of Section III, as the construction Code-of-Record. TVA's ASME Section III Quality Assurance Manual, in effect at the time Unit 2 construction activities were suspended, was written to meet the administrative, documentation, and quality control program aspects delineated in the 1980 Edition through the Winter 1981 Addenda (1980W81). TVA's program, processes, and procedures to document the partially completed piping systems will be written to reflect these requirements and Code Case N-520-2.

III. Code Requirement

At the time of the suspension of construction activities at WBN Unit 2, TVA was the N, NA, and NPT Certificate Holder for the unit. In addition, there were no clear directions in ASME Section III on how to transfer jurisdiction for Code activities from the owner of an incomplete unit to a new ASME Certificate Holder. The wording in Section III basically required these activities to be administered and controlled by N-type certificate holders. Subsequent to these earlier editions and addenda it was recognized that there may be circumstances where construction was interrupted, prior to the completion of all Code assigned responsibilities, and later resumed under a different subcontract N-type stamp holder. In support of this possibility the ASME Section III Committee created the ASME Section Code Case N-520, "Alternative Rules for Renewal of N-type Certificates for Plants Not in Active Construction, Section III, Division 1." Later, the Nonmandatory Appendix Z to ASME Section III was also created to incorporate the provision of the Code Case. ASME Code Case N-520 was created, approved, and published effective December 9, 1993. Revision 1 to N-520 was approved and published effective October 24, 1994. Appendix Z was created and approved as part of the 2004 Edition of Section III, which was published in July 1, 2004. However, each of these documents still required the transfer of the jurisdiction of the partially completed code data between organizations with existing and effective ASME Section III Certifications.

IV. Reason For Request

Subsequent to the suspension of construction activities at WBN Unit 2, TVA allowed the Owner's Certificate and the N-type Certifications to expire, and the issued Code Symbol Stamps were returned to the Society. This decision was made as a result of TVA's decision not to complete WBN Unit 2 due to the lack of need for the extra generating capacity. However, TVA still maintained the NRC construction permit for Unit 2 in case additional generating capacity would be needed in the future. TVA also continued to maintain the Unit 2 ASME Section III piping and system documentation, in the event that construction of Unit 2 was resumed.

Due to the projected power demand in the Tennessee Valley region and in order to maximize the use of an existing asset, TVA's August 3, 2007 letter, "Watts Bar Nuclear Plant (WBN) Unit 2 - Reactivation of Construction Activities" (Reference 1), notified the NRC of the intent to resume construction activities on WBN Unit 2. With this resumption of construction activities, TVA needed a means to be able to transfer the partially completed ASME Section III piping systems and components, and their associated documentation, to the N Certificate holder that was subcontracted to complete Unit 2. In this manner the work previously performed under TVA's N Certificates of Authorization could be credited toward the final completion of the unit's ASME Section III systems and components.

V. Proposed Alternative and Basis For Use

Pursuant to 10 CFR 50.55a(a)(3)(i), TVA is requesting approval for the use of the provisions of ASME Code Case N-520-2, "Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction, Section III, Division 1," on the basis that this alternative will provide an acceptable level of quality and safety for the required quality processes of the construction of WBN Unit 2 to the rules and requirement of ASME Section III.

With the planned restart of construction activities at WBN Unit 2, TVA approached the ASME Section III committee about a process that could be developed whereby the partially completed documentation and associated Code items could be transferred from TVA jurisdiction to an N-type Certificate Holder and allow the plant systems to be completed in accordance with the rule of ASME Section III. Revision 2 to Code Case N-520-1 was the result of this request to the ASME Section III Committee. The NRC Staff has not yet reviewed this revised Code Case nor approved its generic use by the industry through the usual process of incorporation into regulatory guides (e.g., RG-1.84 or RG-1.147) and incorporation into the 10 CFR 50.55a rule paragraphs.

N-520-2 imposes conditions on the Owner to ensure that the transfer of the documentation and associated Code items, from the organization with the expired Certificates of Authorization to the new subcontractor N-type Certificate Holder, is performed in a quality manner. The following attributes were added to the provisions of the Code Case to ensure that the process conforms to the ASME code requirements.

1. Temporary Certificates of Authorization, with limited scope of application, are issued to allow the Owner to transfer the previously completed code data to the subcontractor N-type stamp holder.

2. The Society will perform a survey of the limited scope quality assurance program and processes to ensure that the procedures are in place to accomplish the code data transfer in accordance with the provisions of the Code Case.
3. No new ASME Section III Code (physical) work will be allowed to be performed by TVA under this limited-scope authorization.
4. The Authorized Nuclear Inspector shall certify all partial Data Reports and authorize the temporary Certificate Holder to stamp the previously completed work with the appropriate Code Symbol Stamp.
5. The Quality Assurance Manual previously accepted by the Authorized Nuclear Inspector Supervisor (ANIS) will be implemented with revisions, also accepted by the ANIS, to document and stamp the previously completed work.
6. The term length of the temporary certificates will be of limited duration.
7. An accredited Authorized Nuclear Inspection Agency shall be contracted to supervise the completion of the documentation for the previously completed work.

This process will ensure continuity between the previously performed ASME Section III work and the additional work that is to be performed by the Subcontractor. The overall process will ensure that the WBN Unit 2 construction activities and this proposed alternative provide an acceptable level of quality and safety.

VI. Duration of the Proposed Alternative

Application of the provisions of this request will commence upon approval of this relief request and site approval of implementing instructions and will continue until such time as the WBN Unit 2 N-3 Code Data Report is completed and signed by TVA, as the Owner; or the use of the Code Case is no longer necessary, nor allowed, in accordance with the provisions of the Code Case. Should the NRC impose additional requirements, these will be implemented prior to completion of the N-3 Code Data Report.

VII. Precedents

Due to the unique circumstances associated with WBN Unit 2, there are no established precedents for the use of the revised ASME Section III Code Case, N-520-2.

VIII. References

1. TVA letter dated August 3, 2007, "Watts Bar Nuclear Plant (WBN) Unit 2 - Reactivation of Construction Activities"

ATTACHMENT 1
APPROVED COPY OF CODE CASE N-520-2

Case number: N-520-2

Approval Date: November 1, 2007

The ASME Boiler and Pressure Vessel Standards Committee took action to eliminate Code Case expiration dates effective March 11, 2005. This means that all Code Cases listed in this Supplement and beyond will remain available for use until annulled by the ASME Boiler and Pressure Vessel Standards Committee.

Case N-520-2

Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction

Section III, Division 1

Inquiry: What alternative requirements (NCA-8100) may be used for the renewal of active or expired N-type Certificates held by the Owner/Designee/Certificate Holder of a nuclear power plant where fabrication and installation activities at the Owner's site have been interrupted?

Reply: It is the opinion of the Committee that an active N-type Certificate, or one that has been permitted to expire, as specified in the Inquiry may be renewed at the applicant's facilities by the Society, provided the following alternative rules are met:

(a) The applicant shall notify the Society and the Authorized Nuclear Inspection Agency of its intent to use this Code Case.

(b) The applicant is responsible for documenting compliance with the provisions of NCA-1140.

(c) The Quality Assurance Program previously accepted by the society shall be continually implemented (NCA-8140) and any revisions to the program shall be acceptable to the Authorized Nuclear Inspection Agency.

(d) An agreement with an accredited Authorized Nuclear Inspection Agency shall be maintained by N-type Certificate Holder in accordance with NCA-8130.

(e) For active Certificate not later than six months prior to the date of expiration of the N-type Certificate, the applicant shall apply for renewal of the certificate. The renewal application shall reference this Code Case. A letter from the Authorized Nuclear Inspection Agency recommending the renewal of the Certificate shall accompany the application.

(f) Where the N-type Certificate Holder has permitted the Certificates to expire, and has returned the Code Symbol Stamps to the Society, and the Owner plans to contract with a new Certificate Holder to complete construction of the nuclear facility, the expired Certificate Holder may apply to the Society for temporary Certificates of Authorization and such Certificates and applicable Code Symbol Stamps shall be issued by the Society subject to the following conditions:

(1) The scope of the certificates shall be limited to the Code Edition and Addenda to which the nuclear plant

has been docketed. No new Code work may be performed under these temporary Certificates. Repair welding of material imperfections and existing welds shall not be performed.

(2) An Accredited Authorized Nuclear Inspection Agency shall be employed to review the completed work and monitor and verify compilation and completion of all documentation such as Data Report Forms and supporting Data Packages.

(3) The ANI shall certify all partial Data Reports and authorize the temporary Certificate Holder to stamp the previously completed work with the appropriate Code Symbol Stamp.

(4) The Quality Assurance Program previously accepted by the Society shall be implemented (NCA-8140) and any revisions to the program shall be acceptable to the Authorized Nuclear Inspection Agency. All required revisions to the Quality Assurance Manual shall be reviewed and accepted by the ANIS prior to implementation. The revised program shall govern all activities required to document and stamp all previously completed work.

(5) A survey or audit by the Society shall be required for the issuance of the requested Certificates and Stamps to the expired Certificate Holder. Code activities performed prior to the issuance of the temporary Certificates shall be subject to the acceptance of the Inspector (NCA-8153).

(6) The Owner shall apply to the Society for an Owners Certificate (NCA-8162), and the evaluation interview by the Society shall include a review of the scope of activities to be performed under the temporary Certificates. A complete list of all work remaining to be documented and stamped shall be provided to the AIA prior to completion of all work. The Regulatory Authority and the Jurisdictional and Enforcement Authority (if applicable) shall be notified of the completion of these activities.

(7) The term of the temporary Certificates shall be for one year, and may be extended once by the Society upon receipt of a request submitted by certified mail for an additional period not to exceed one year. Subsequent renewals shall be treated as renewals of active Certificates.

(8) The Owner shall maintain the Owner's Certificate in accordance with existing Code requirements until all Code activity has been completed, and the N-3 Data Report Form has been completed and filed [NCA-8180(c)].

(9) The temporary Certificates and Code Symbol Stamps shall be returned to the Society when all previously completed work has been documented and stamped.

(g) The renewal application shall include a complete listing of any Code activities to be performed. A certificate providing for activities to meet the provisions of NB/NC/ND/NE/NF/NG-2000, NB/NC/ND/NE/NF/NG-4000, NB/NC/ND/NE/NF/NG-5000, and NB/NC/ND/NE/NF/NG-6000 shall not be issued without a survey as required by the Society.

(h) At least six months prior to performance of any Code activities not listed in the last renewal application,

to meet the provisions of NX-2000, NX-4000, and NX-5000, and NX-6000 the N-type Certificate Holder shall apply to the Society for a renewal survey.

(i) An audit as required by the Society shall be conducted prior to the renewal of the Certificate.

(j) The Code Symbol Stamp shall be returned to the Society prior to issuance of the renewal Certificate.