



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

June 25, 2010

10 CFR 50.55a

U.S. Nuclear Regulatory Commission
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Watts Bar Nuclear Plant, Unit 2
NRC Docket No. 50-391

**Subject: WATTS BAR NUCLEAR PLANT (WBN) UNIT 2 - REQUEST TO USE
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER
AND PRESSURE VESSEL CODE, CODE CASE N-520-3,
"ALTERNATIVE RULES FOR RENEWAL OF ACTIVE OR EXPIRED
N-TYPE CERTIFICATES FOR PLANTS NOT IN ACTIVE
CONSTRUCTION, SECTION III, DIVISION 1"**

- References:
1. TVA letter dated February 1, 2008, "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 (TAC No. MD8314)"
 2. NRC letter dated May 22, 2008, "Watts Bar Nuclear Plant, Unit 2 - Request for Additional Information Regarding Renewal of Active or Expired N-Type Certificates for Plants Not in Active Construction (TAC No. MD8314)"
 3. TVA letter dated July 2, 2008, "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' - Response to Request for Additional Information (TAC No. MD8314)"
 4. NRC letter dated October 2, 2008, "Watts Bar Nuclear Plant, Unit 2 - Request for Relief Regarding Alternative Rules for Renewal of Active or Expired N-Type Certificates (TAC No. MD8314)"

Pursuant to 10 CFR 50.55a(a)(3)(i), TVA requests approval for the use of the provisions of approved ASME Code Case N-520-3, "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.

The NRC staff authorized, pursuant to 10 CFR 50.55a(a)(3)(i), a temporary Certificate of Authorization to TVA for use of the alternatives in Code Case N-520-2 to conduct the transfer of N-type certificates at WBN Unit 2 (References 1 through 4). The use of this Code Case was authorized until such time as the Code Case is published in a future version of Regulatory Guide (RG) 1.84 and incorporated by reference in 10 CFR 50.55a(b). As a condition, TVA must comply with the duration and terms of the temporary certificates and for renewals as delineated in the Code Case. Code Case N-520-2 authorized a single one-year extension of the temporary Certificate of Authorization.

Enclosure 1 provides TVA's request for relief to use the proposed alternative Code Case. Approval of the use of this relief is requested to be completed in a time frame to allow TVA to request extension of the temporary N-type Certificate for an additional year. The present NA and NPT Certificates expire on May 7, 2011, but Code activities will not be completed by that time. Therefore, a second request for extension will be initiated in November 2010, if the request for relief is approved by the NRC. ASME Section III construction, fabrication, and installation activities on WBN Unit 2 are in progress with contractors who have the appropriate Code Symbol Stamps to complete the construction of WBN Unit 2. Enclosure 2 contains the TVA commitment associated with relief request contained in Enclosure 1.

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

Sincerely,



Masoud Bajestani
Watts Bar Unit 2 Vice President

Enclosures:

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-520-3, "Alternative Rules for Renewal of Active or Expired N-Type Certificates for Plants Not in Active Construction, Section III, Division 1"
2. List of Commitments

cc: See Page 3

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cc (Enclosures):

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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-520-3, "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 to use the provisions of ASME Code Case N-520-3, "Alternative Rules for Renewal of Active or Expired N-type Certificates for Plants Not in Active Construction, Section III, Division 1." In November 2009, Code Case N-520-3 was issued by Supplement 11 to the 2007 ASME Edition Code Cases. 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-520-3 will allow TVA to renew a temporary Certificate of Authorization from ASME for one additional year to complete and transfer documentation of the partially completed ASME Section III systems and components, to the jurisdiction of a contractor who will be an ASME Section III N Certificate Holder. This will allow the contractor 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 3 to Code Case N-520, the NRC staff authorized, pursuant to 10 CFR 50.55a(a)(3)(i), the alternatives in Code Case N-520-2 to obtain a temporary Certificate of Authorization to conduct the transfer of N-type certificates at WBN Unit 2 (References 1 through 4 of the transmittal letter). The provisions of Code Case N-520-3 are identical to Code Case N-520-2 with the exception of *Reply* paragraph(f)(7), which states that the term of the temporary Certificate may be extended **twice** by the Society upon receipt of a request for an additional period not to exceed one year. Code Case N-520-2, *Reply* paragraph(f)(7), states that the term of the temporary Certificate may be extended **once** by the Society upon receipt of a request for an additional period not to exceed one year.

I. Systems and Components Affected

This request will be applicable to the WBN Unit 2 safety-related systems and components required to be designed, fabricated, and constructed in compliance with 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 presently 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 convey jurisdiction for Code activities from the owner of an incomplete unit to a new ASME Certificate Holder. The wording in Section III required these activities to be administered and controlled by N-type certificate holders. Apart from the earlier editions and addenda, it was recognized that circumstances may occur where construction was interrupted prior to the completion of all Code assigned responsibilities, then resumed under a different N-type stamp holder. To address 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. Revision 2 to N-520 was approved and published by Supplement 4 to the 2007 ASME Edition of Section III Code Cases effective November 1, 2007. Revision 3 to Code Case N-520 was approved by Supplement 11 to the 2007 ASME Edition of Section III Code Cases effective November 11, 2009. Revisions 1 and 2 to Code Case N-520 have been superseded.

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 additional generating capacity. However, TVA maintained the NRC construction permit for Unit 2 in case additional generating capacity would be needed in the future. TVA also maintained 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 its intent to resume construction activities on WBN Unit 2. With the resumption of construction activities, TVA needed a means to transfer the partially completed ASME Section III piping systems and components, and the associated documentation, to the N Certificate Holder contracted 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-520-3, "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 requirements of ASME Section III.

With the planned restart of construction activities at WBN Unit 2, TVA approached the ASME Section III Committee about the development of a process that would enable the transfer of partially completed documentation and associated Code items from TVA jurisdiction to an N-type Certificate Holder and allow plant systems to be completed in accordance with the requirements of ASME Section III. Revision 2 to Code Case N-520-1 was the result of this request to the ASME Section III Committee.

TVA received one year NA and NPT Certificates of Authorization per Code Case N-520-2 effective May 7, 2009. These certificates were revised December 16, 2009, per TVA's request for a one-year extension per Code Case N-520-2 with expiration on May 7, 2011. TVA's principal contractor for completion of WBN Unit 2 did not receive N Code symbol stamps until January 2010. Remaining Code activity will not be completed to allow TVA to issue the N-3 Data Report prior to expiration of the NA and NPT Certificates of Authorization on May 7, 2011. Under the current provisions of Code Case N-520-2, TVA must apply to the Society for a renewal survey no later than November 7, 2010.

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.

Code Case N-520-3, like N-520-2, imposes conditions on the Owner to ensure that conveyance of documentation and associated Code items, from the organization with the expired Certificates of Authorization to the new 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 ASME code requirements:

1. Temporary Certificates of Authorization, with limited scope of application, are issued to allow TVA to transfer the previously completed code data to the contractor 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 completion work that is to be performed by the contractor. The overall process will ensure that the appropriate Codes are applied to the construction activities at WBN Unit 2 to provide an acceptable level of quality and safety.

VI. Duration of Use 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, they will be implemented prior to completion of the N-3 Code Data Report.

VII. Industry 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-520-3.

VIII. References

1. TVA letter dated August 3, 2007, "Watts Bar Nuclear Plant (WBN) Unit 2 - Reactivation of Construction Activities" (ML072190047)

ENCLOSURE 2

List of Commitments

1. 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, they will be implemented prior to completion of the N-3 Code Data Report.