



Terry J Garrett
Vice President, Engineering

July 25, 2006

ET 06-0030

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Reference: Letter ET 06-0002 dated February 7, 2006, from T. J. Garrett, WCNOC, to USNRC

Subject: Docket No. 50-482: Additional Information Related to Revision to Technical Specification (TS) 3.3.1, "Reactor Trip System (RTS) Instrumentation"

Gentlemen:

The Reference provided Wolf Creek Nuclear Operating Corporation's (WCNOC) application proposing to add Surveillance Requirement (SR) 3.3.1.16 to Function 3.a of Technical Specification (TS) Table 3.3.1-1. SR 3.3.1.16 requires that RTS RESPONSE TIMES be verified to be within limits every 18 months on a STAGGERED TEST BASIS. Function 3.a. is the power range neutron flux – high positive rate reactor trip function. The change proposed in the Reference is based on a reanalysis of the Uncontrolled Rod Cluster Control Assembly Bank Withdrawal at Power event.

A teleconference was held on May 25, 2006 between Nuclear Regulatory Commission (NRC) personnel and WCNOC personnel. As a result of this teleconference and subsequent discussions with the NRC Project Manager, additional information was requested to support the review of the amendment application. The Attachment provides the requested information.

The additional information provided in the Attachment does not impact the conclusions of the No Significant Hazards Consideration provided in the Reference. In accordance with 10 CFR 50.91, a copy of this submittal is being provided to the designated Kansas State official.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4084, or Mr. Kevin Moles at (620) 364-4126.

Very truly yours,

A handwritten signature in black ink, appearing to read "Terry J. Garrett", written in a cursive style.

Terry J. Garrett

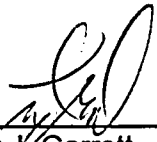
TJG/rlt

Attachment

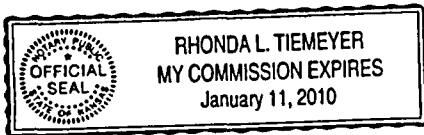
cc: T. A. Conley (KDHE)
J. N. Donohew (NRC), w/a
W. B. Jones (NRC), w/a
B. S. Mallett (NRC), w/a
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Terry J. Garrett, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By 
Terry J. Garrett
Vice President Engineering

SUBSCRIBED and sworn to before me this 25th day of July, 2006.



Rhonda L. Tiemeyer
Notary Public

Expiration Date January 11, 2010

**Additional Information Related to Revision to Revision to Technical Specification (TS)
3.3.1, "Reactor Trip System (RTS) Instrumentation"**

A teleconference was held on May 25, 2006 between Nuclear Regulatory Commission (NRC) personnel and Wolf Creek Nuclear Operating Corporation (WCNOC) personnel. As a result of this teleconference and subsequent discussions with the NRC Project Manager, additional information was requested to support the review of the amendment application.

1. The NRC Safety Evaluation Report on EPRI Topical Report NP-7450(P), Revision 4, described conditions and limitations for use. Identify if WCNOC has assessed the conditions and limitations for utilizing RETRAN-3D in the RETRAN-02 mode.

RESPONSE: The NRC approved the use of RETRAN-02 in the Safety Evaluation Report dated September 30, 1993, for the "Transient Analysis Methodology for the Wolf Creek Generating Station," (WCNOC Topical Report NSAG-006). The upgrade of the RETRAN model to RETRAN 3D was performed utilizing the WCNOC calculation process. A design verification report was completed that performed a validity assessment of the NRC Safety Evaluation Report (dated January 25, 2001) which was incorporated into EPRI Topical Report NP-7450(A), Revision 5. The performance of the design verification report ensured that the conditions and limitations in the NRC Safety Evaluation were complied with and that the correct RETRAN-02 models contained in RETRAN-3D were used. Specifically, Condition 40 of the NRC Safety Evaluation Report states:

40. Organizations with NRC-approved RETRAN-02 methodologies can use the RETRAN-3D code in the RETRAN-02 mode without additional NRC approval, provided that none of the new RETRAN-3D models listed in the definition are used. Organizations with NRC-approved RETRAN-02 methodologies must obtain NRC approval prior to applying any of the new RETRAN-3D models listed above for UFSAR Chapter 15 licensing basis applications. Organizations without NRC-approved RETRAN-02 methodologies must obtain NRC approval for such methodologies or a specific application before applying the RETRAN-02 code or the RETRAN-3D code for UFSAR Chapter 15 licensing basis applications. Generic Letter 83-11 provides additional guidance in this area. Licensees who specifically reference RETRAN-02 in their technical specifications will have to request a Technical Specification change to use RETRAN-3D.

WCNOC has an NRC-approved RETRAN-02 methodology and is using the RETRAN-3D code in the RETRAN-02 mode. None of the RETRAN-3D models listed in the limitations are being used.

2. Describe the comparisons performed of the uncontrolled RCCA Bank Withdrawal at Power event reanalysis.

RESPONSE: Comparative results between the RETRAN-02 analysis and RETRAN-3D in the RETRAN-02 mode analysis for the Uncontrolled Rod Withdrawal at Power event were performed for the limiting departure from nucleate boiling (DNB), overpressure, and overfill cases of the current analysis of record at both minimum and maximum reactivity feedback conditions. Considerable consistency between the results were obtained between the RETRAN-3D in the RETRAN-02 mode analysis and the RETRAN-02 analysis, which provided an acceptable confidence level of the use of RETRAN-3D in the RETRAN-02 mode.

3. Provide a reference in the COLR to EPRI Topical Report NP-7450.

RESPONSE: In discussions with the NRC subsequent to the May 25, 2006 teleconference, the NRC requested WCNOG to include in the Core Operating Limits Report (COLR) a reference to the EPRI Topical Report with an annotation that the RETRAN-3D code is utilized only in the RETRAN-02 MODE. In the NRC letter dated January 25, 2001, the NRC requested that EPRI publish an accepted version of the topical report. Therefore, the reference to be incorporated into the COLR is the accepted version of the EPRI Topical Report. Page 3 of this Attachment provides draft changes that would be incorporated into the COLR as part of implementation of the amendment.



Wolf Creek Generating Station
Cycle 15
Core Operating Limits Report
Revision 0

B. Approved Analytical Methods for Determining Core Operating Limits

The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents.

1. WCNOC Topical Report TR 90-0025 W01, "Core Thermal Hydraulic Analysis Methodology for the Wolf Creek Generating Station." (ET 90-0140, ET 92-0103)

NRC Safety Evaluation Report dated October 29, 1992, for the "Core Thermal Hydraulic Analysis Methodology for the Wolf Creek Generating Station."

2. WCAP-11397-P-A, "Revised Thermal Design Procedure," April 1989.

NRC Safety Evaluation Report dated January 17, 1989, for the "Acceptance for Referencing of Licensing Topical Report WCAP-11397, Revised Thermal Design Procedure."

3. WCNOC Topical Report NSAG-006, "Transient Analysis Methodology for the Wolf Creek Generating Station" (ET-91-0026, ET 92-0142, WM 93-0010, WM 93-0028).

NRC Safety Evaluation Report dated September 30, 1993, for the "Transient Analysis Methodology for the Wolf Creek Generating Station."

4. WCAP-10216-P-A, Revision 1A, "Relaxation of Constant Axial Offset Control - F_Q Surveillance Technical Specification," February 1994.

NRC Safety Evaluation Report dated November 26, 1993, "Acceptance for Referencing of Revised Version of Licensing Topical Report WCAP-10216-P, Rev. 1, Relaxation of Constant Axial Offset Control - F_Q Surveillance Technical Specification" (TAC No. M88206).

5. WCNOC Topical Report NSAG-007, "Reload Safety Evaluation Methodology for the Wolf Creek Generating Station" (ET 92-0032, ET 93-0017).

NRC Safety Evaluation Report dated March 10, 1993, for the "Reload Safety Evaluation Methodology for the Wolf Creek Generating Station."

6. NRC Safety Evaluation Report dated March 30, 1993, for the "Revision to Technical Specification for Cycle 7" (NA 92-0073, NA 93-0013, NA 93-0054).

EPR1 Topical Report NP-7450(A), "RETRAN-3D-A Program for Transient Thermal-Hydraulic Analysis of Complex Fluid Flow Systems," including NRC Safety Evaluation Report dated January 25, 2001, "Safety Evaluation Report on EPR1 Topical Report NP-7450(P), Revision 4, "RETRAN-3D-A Program for Transient Thermal-Hydraulic Analysis of Complex Fluid Flow Systems," (TAC NO. MA4311)." RETRAN-3D code is only utilized in the RETRAN-02 mode.