

# WOLF CREEK NUCLEAR OPERATING CORPORATION

Donna Jacobs  
Vice President Operations and Plant Manager

September 14, 2004

WO 04-0041

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

Reference: Letter WO 04-0003, dated February 9, 2004, from B. T. McKinney, WCNOC, to USNRC

Subject: Docket No. 50-482: Response to Request for Additional Information Regarding the Application for Technical Specification Change Regarding MODE Change Limitations

Gentlemen:

The Reference transmitted an application for amendment to Facility Operating License No. NPF-42 for the Wolf Creek Generating Station. The license amendment request would modify technical specification (TS) requirements for MODE change limitations in Limiting Condition for Operation (LCO) 3.0.4, Surveillance Requirement (SR) 3.0.4, and applicable specifications.

The Reference proposed to delete the Note in Condition C of TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," which requires that while the Limiting Condition for Operation (LCO) is not met for Function 19, 20, or 21 in MODE 5, making the Rod Control System capable of rod withdrawal is not permitted. Based on discussions with the NRC staff on July 29, 2004 and August 18, 2004, additional information was requested verbally to support the deletion of the Note in Condition C.

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.

ADD1

There are no commitments associated with this submittal. Please contact me at (620) 364-4246 or Mr. Kevin Moles at (620) 364-4126 for any questions regarding this submittal.

Very truly yours,

  
Donna Jacobs

DJ/rlg

Attachment

cc: V. L. Cooper (KDHE), w/a  
J. N. Donohew (NRC), w/a  
D. N. Graves (NRC), w/a  
B. S. Mallett (NRC), w/a  
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS )  
 ) SS  
COUNTY OF COFFEY )

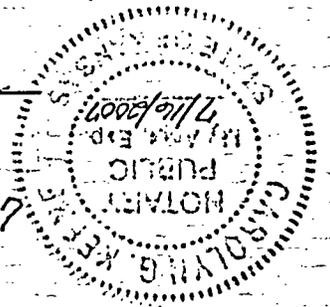
Donna Jacobs, of lawful age, being first duly sworn upon oath says that she is Vice President Operations and Plant Manager of Wolf Creek Nuclear Operating Corporation; that she has read the foregoing document and knows the contents thereof; that she has executed the same for and on behalf of said Corporation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

By Donna Jacobs  
Donna Jacobs  
Vice President Operations and Plant Manager

SUBSCRIBED and sworn to before me this 14 day of Sept., 2004.

Carolyn A. Keene  
Notary Public

Expiration Date July 16, 2007



## Response to Request for Additional Information

### Request:

Industry/Technical Specification Task Force Change Traveler TSTF-359, Revision 9, revises Limiting Condition for Operation (LCO) 3.0.4 so that it now applies to all specifications except those that are specifically excluded. Previously LCO 3.0.4 applied to only those specifications that explicitly stated its applicability. Thus, in adopting TSTF-359 the Note invoking LCO 3.0.4 can be removed. It does not follow that Notes that explicitly excluded transitioning into conditions of applicability should be removed (in specific cases such as into the MODES to which LCO 3.0.4 previously did not apply and the licensee determined should be excluded). In particular, TSTF-359 is not a justification for removing the Note to Condition C in Technical Specification (TS) 3.3.1, "Reactor Trip System (RTS) Instrumentation," which states, "While this LCO is not met for Function 19, 20, or 21 in MODE 5, making the Rod Control System capable of rod withdrawal is not permitted." Provide additional information to support the deletion of the Note to Condition C in TS 3.3.1.

### Response:

Wolf Creek Nuclear Operating Corporation's (WCNOC) license amendment request (letter WO 04-0003 dated February 9, 2004) provided the following information concerning the deletion of the Note to TS 3.3.1 Condition C.

#### "Special LCO 3.0.4 Notes Added during ITS Conversion"

Prior to approval of TSTF-359 Revision 9, ISTS LCO 3.0.4 and SR 3.0.4 contained a Reviewer's Note which required a plant-specific evaluation and, if necessary, application of specific restrictions on MODE changes or Required Actions in individual LCOs. The Federal Register Notice of Availability (68 FR 16586 dated 4/4/2003) states:

"The notes limiting the applicability of LCO 3.0.4 and SR 3.0.4 are no longer needed and are removed by TSTF-359, Revision 8. The industry owners group analyses would subsequently support adding notes to various TS, as defined by the tables of higher-risk systems, precluding entry into Modes 5 and 6 for PWRs, and Modes 4 and 5 for BWRs. However, the addition of notes in these cases is made unnecessary by action statements that require immediate completion times, which means that entry into the Mode or other specified condition in the Applicability is not allowed and the notes would be superfluous."

The Federal Register Notice (68 FR 16588) further states:

"In addition, mode transitions for Modes 5 and 6 for PWRs, and Modes 4 and 5 for BWRs, will be addressed by administrative controls."

NEI 03-10, "Risk-Informed Technical Specifications Initiative 3, Increased Flexibility in Mode Restraints (TSTF-359), Industry Implementation Guidance," August 2003 (page A-9) and TSTF-359, Revision 9 (Proposed Change section of the traveler justification) both indicate that any plant-specific Notes restricting MODE changes added as a result of the evaluation required by the STS Reviewer's Note are to be deleted.

WCNOC added five special LCO 3.0.4 Notes to the TS during our Improved TS conversion (Amendment No. 123). The following discussions provide additional justification for deleting these Notes:

- In TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," the Note in Condition C is deleted. The Note requires that while the LCO is not met for Function 19, 20, or 21 in MODE 5, making the Rod Control System capable of rod withdrawal is not permitted. Prior to enabling the Rod Control System and withdrawing any control or shutdown banks, i.e., the MODE or other specified condition in the Applicability in question, plant procedures provide controls to either 1) maintain RCS boron concentration sufficient to preclude criticality with all control rods fully withdrawn, or 2) require that the power range neutron flux instrumentation is OPERABLE when RCS temperature is above 510°F. This plant-specific Condition C Note is superfluous and is therefore deleted."

#### Initiation of Note to Condition C in TS 3.3.1

As noted above, the Note to Condition C was added by Amendment No. 123 (WCNOC conversion to the improved technical specification). NUREG-1431, Rev. 1, LCO 3.0.4 has a Reviewer's Note which states:

"LCO 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, LCO 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4. The MODE change restrictions in LCO 3.0.4 were previously applicable in all MODES. Before this version of LCO 3.0.4 can be implemented on a plant specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on MODE changes or Required Actions should be included in individual LCOs to justify this change: such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of conversion to the STS."

In the WCNOC conversion application (letter ET 97-0050 dated May 15, 1997, Attachment 6), Description of Change (DOC) 1-02 LS-1 documented the change to TS LCO 3.0.4 and LS-1 specifically provided a matrix of the evaluation per the Reviewer's Note. As mentioned in LS-1, the methodology for preparing a LCO 3.0.4 matrix was described in Industry Traveler BWR-26. The methodology of BWR-26 involved a review of all LCO's in the plant specific Improved Technical Specifications (ITS) to determine which MODE or other specified conditions of Applicability (MOSCA) would represent a new allowance in flexibility over that provided in the current TSs (those TSs at the time of conversion). Where an increase in flexibility was identified, further review was necessary to determine the safety significance of the new flexibility. In BWR-26, each NUREG specification was reviewed for any increased flexibility and for the transition of MODE 5 to MODE 5(b) for Functions 19, 20, and 21, the generic evaluation conservatively identified that a Note should be added to Condition C even though an argument could be made that it was acceptable to enter the MOSCA since one train is still OPERABLE and trip capability is still available. As identified in the plant specific matrix in LS-1, WCNOC chose to apply a Note to Condition C consistent with the plant-specific evaluation performed per BWR-26 with the significance being that the transition would not be allowed to occur with all rods not fully inserted or with the Rod Control System capable of rod withdrawal while the RTS function is degraded.

### WOG Qualitative Risk Assessment

Attachment 4 to TSTF-359 provided the Westinghouse Owners Group (WOG) Qualitative Risk Assessment Supporting Increased Flexibility in MODE Restraints. In this assessment, for MODES 4, 5, and 6 rod withdrawal was not considered since it was assumed that the reactor trip breakers are open in these MODES. This assessment did however look at rod withdrawal in MODE 3 and determined that there was no high risk systems/equipment for transitioning from MODE 4 to MODE 3 with all rods not fully inserted or with the Rod Control System capable of rod withdrawal. Therefore, no LCO 3.0.4.b exceptions were required by TSTF-359 Revision 9 for enabling the Rod Control System in MODE 3.

### Risk Significance

Administrative controls that address reactivity restriction have been implemented in procedures that ensure that whenever control rods are capable of being withdrawn, either power range nuclear instrumentation (PRNIs) are OPERABLE with Reactor Coolant System (RCS) temperature at or above 510°F or RCS boron concentration is adequate to maintain the reactor shutdown under ARO conditions.

If risk is defined qualitatively as:

$$\text{Risk} = \text{Probability (of an event per reactor year)} \times \text{Consequences (latent fatalities or latent cancers per event)}$$

Then the MODE 5 to MODE 5(b) MOSCA transition risk in the TS 3.3.1 Condition C Note is a low risk transition since the probability of enabling rod control and pulling rods is insignificant in MODE 5 and administrative controls are in place to limit the potential consequences in the form of reactivity control limitations.

Additionally, control room operators are capable of identifying an uncontrolled rod withdrawal condition, based on the overlapping Nuclear Instrumentation System channels (source range, intermediate range, and power range) and would take the necessary action to either terminate the withdrawal or insert a manual reactor trip in sufficient time to prevent unacceptable consequences.

Therefore, it should be acceptable to delete the Note from Condition C and utilize the LCO 3.0.4.b allowances as specified in the proposed change.

### Additional Consideration

Maintaining the existing Note to TS 3.3.1 Condition C with the revised LCO 3.0.4 would result in inconsistency within the Specifications. The existing Note would not allow utilizing the provisions of LCO 3.0.4.b for transitioning from MODE 5 to MODE 5(b) with one channel or train of Function 19, 20, or 21 inoperable. However, for transitioning from MODE 4 to MODE 4(b) or from MODE 3 to MODE 3(b), the provisions of LCO 3.0.4.b could be utilized with one channel or train of Function 19, 20, or 21 inoperable.