

WOLF CREEK

NUCLEAR OPERATING CORPORATION

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ET 98-0093

U. S. Nuclear Regulatory Commission
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Washington, D. C. 20555

Reference: Amendment No. 63 to Facility Operating License No. NPF-42
dated June 23, 1993

Subject: Docket No. 50-482: Revision to Technical Specification Bases
Section 3/4.4.4, Relief Valves

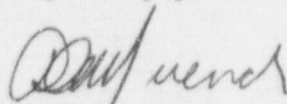
Gentlemen:

This letter transmits a change to the Wolf Creek Generating Station (WCGS) Technical Specification Bases. The Reference revised Technical Specification 3/4.4.4 Action a to require power be maintained to closed, power-operated relief valve (PORV) block valves, so that the valves will remain functional and may be subsequently opened to allow the PORV to be used to control reactor coolant system pressure. This action applies to PORVs with excessive seat leakage. Wolf Creek Nuclear Operating Corporation (WCNOC) determined that the change to the Bases submitted with the license amendment request did not adequately describe this function and that a clarification is required. The resulting Bases change is consistent with the NRC's Safety Evaluation Report issued with the Reference, and does not constitute an unreviewed safety question.

Attachment I provides background information and justification for the change. Attachment II provides a markup of the Bases page to be revised. Attachment III identifies the commitments made by WCNOC in this submittal.

A copy of this Bases change, with attachments, is being provided to the designated Kansas State Official. If you have any questions concerning this matter, please contact me at (316) 364-4034, or Mr. Michael J. Angus at 316-364-4077.

Very truly yours,



Richard A. Muench

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Attachments

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ATTACHMENT I
REVISION OF TECHNICAL SPECIFICATION BASES

REVISION OF TECHNICAL SPECIFICATION
BASES SECTION 3/4.4.4, RELIEF VALVES

Description of Technical Specification Bases Change

Wolf Creek Nuclear Operating Corporation (WCNOC) proposes to revise Wolf Creek Generating Station (WCGS) Technical Specification Bases 3/4.4.4, Relief Valves, to add the following paragraph:

"Although a PORV may be designated inoperable, it may be able to be manually opened and closed, and therefore, be able to perform its pressure control function. PORV inoperability may be due to excessive seat leakage that does not prevent manual use and does not create the possibility for a small break LOCA. Therefore, when a PORV is inoperable solely due to excessive seat leakage, the block valve may be closed; however, to allow continued operation, the Action requires power be maintained to the block valve to allow quick access to the associated PORV for pressure control."

The above change clarifies that it is acceptable to open a closed, powered power-operated relief valve (PORV) block valve to allow its associated PORV (when closed due to excessive seat leakage) to operate for reactor coolant pressure control in response to a reactor coolant system pressure transient.

Background

The PORVs and their associated block valves may be used by plant operators to depressurize the reactor coolant system (RCS) to recover from certain transients (e.g., Steam Generator Tube Rupture) if normal pressurizer spray is not available. The PORVs are modeled in safety analyses for events that result in increasing RCS pressure for which departure from nucleate boiling ratio (DNBR) criteria, pressurizer volume, or hot leg saturation are examined. By assuming PORV actuation, the primary pressure remains below the high pressurizer pressure trip setpoint. The DNBR calculation is more conservative, the transient pressurizer water volume is maximized, and the hot leg saturation temperature is reduced for those transients assuming PORV operation.

Evaluation

Technical Specification 3/4.4.4 was revised by Amendment 63 on June 23, 1993, in response to Generic Letter 90-06, "Resolution of Generic Issue 70, 'Power-Operated Relief Valve and Block Valve Reliability,' and Generic Issue 94, 'Additional Low-Temperature Overpressure Protection for Light-Water Reactors,' Pursuant to 10 CFR 50.54(f)." As identified in Enclosure A, Attachment A-3 to the Generic Letter and in the Wolf Creek Nuclear Operating Corporation (WCNOC) license amendment request (ET 91-0075 dated May 14, 1991), when operating with a leaking PORV, power is required to be maintained to the closed block valve(s) so that it is operable and may be subsequently opened to allow the PORV to be used to control reactor pressure. Closure of the block valve establishes reactor coolant pressure boundary integrity for a PORV that has excessive seat leakage. Additionally, NUREG-1431, Rev. 1, "Standard Technical Specifications, Westinghouse Plants," Specification 3.4.11, Condition A, requires closure of the block valve and maintaining power to the valve when one or more PORVs are inoperable but capable of being manually cycled. The Bases of Specification 3.4.11 state:

"Although a PORV may be designated inoperable, it may be able to be manually opened and closed, and therefore, able to perform its function. PORV inoperability may be due to seat leakage, instrumentation problems, automatic control problems, or other causes that do not prevent manual

use and do not create a possibility for a small break LOCA. For these reasons, the block valve may be closed but the Action requires power be maintained to the valve. ... Quick access to the PORV for pressure control can be made when power remains on the closed block valve."

Based on the above information, opening a closed but powered block valve to allow the PORV to operate for reactor coolant pressure control in response to a reactor coolant system pressure transient is within the design function and analyses for the PORVs and block valves. This was not made clear in the change to Bases Section 3/4.4.4 included with Amendment 63 to the WCGS Technical Specifications.

This bases change merely clarifies in the bases that it is acceptable to open a closed but powered block valve to allow its associated PORV (when closed due to excessive seat leakage) to operate for reactor coolant pressure control in response to a reactor coolant system pressure transient. This use of the PORV and PORV block valves was approved by the NRC in Amendment 63 to the WCGS Technical Specifications. This bases change only clarifies in the bases the actions that were approved in Amendment 63. This bases change does not involve any plant modifications or any changes to plant operating procedures, does not constitute an unreviewed safety question, and has no impact on the health and safety of the public.

ATTACHMENT II
BASES MARKUP PAGE