

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Clay C. Warren
Chief Operating Officer

January 22, 1997

WO 97-0017

U. S. Nuclear Regulatory Commission
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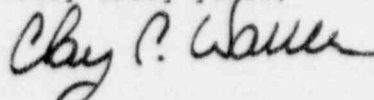
Reference: Letter dated December 17, 1996, from
T. P. Gwynn, NRC, to N. S. Carns, WCNOG
Subject: Docket No. 50-482: Additional Information
Requested at the Predecisional Enforcement
Conference on January 16, 1997

Gentlemen:

At the Predecisional Enforcement Conference held on January 16, 1997, in Arlington, Texas, Wolf Creek Nuclear Operating Corporation agreed to supply additional information relative to each of the three apparent violations and information on some inconsistencies noted in the inspection report. The attachments to this letter contains the requested information.

If you have any questions regarding this response, please contact me at (316) 364-8831, extension 4485, or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,


Clay C. Warren

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G PDR

CCW/jad

Attachment

cc: W. H. Bateman (NRC), w/a
L. J. Callan (NRC), w/a
P. T. Gwynn (NRC), w/a
W. D. Johnson (NRC), w/a
D. J. Nelson (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Stone (NRC), w/a
C. A. Vandenburg (NRC), w/a

IEDI/

290071

Apparent Violation 50-482/96021-02:

Essential Service Water Backwash Strainer Setpoints

Inspection Report 96-021 states on page 8 that:

"The team reviewed set point change request EF-84-01, dated March 13, 1984. This document requested a setpoint change for the self cleaning strainer pressure instruments to change the setpoint to 5.5 psid. The cover sheet was annotated with an "N/A" following questions concerning if any Updated Safety Analysis Report section or limit was affected by the change. The modification had a 10 CFR 50.59 screening, but no safety analysis. The team found that the screening stated that the change described in the primary document did not involve a change to the Updated Safety Analysis Report. However the strainer table was a part of the Updated Safety Analysis Report and included the 3.0 psi maximum differential pressure for a dirty strainer. The team considered the licensee's failure to perform a safety evaluation to the first example of an apparent violation of 10 CFR 50.59."

Contrary to this statement, a safety evaluation (Safety Review Record/Unreviewed Safety Question Determination) was performed in connection with the setpoint change. Pursuant to our 1985 practices and procedure, this USQD was performed as part of the modification package for the change, and not the initial set point change request. In this regard, Part II of the Set Point Change Request stated in the Remarks section that these were preliminary setpoints which would be finalized after Bechtel completed their loop uncertainty calculations. Plant Modification Request (PMR) 00903, "Setpoints for Safety Related Instruments," subsequently implemented Set Point Change Request EF-84-01 along with a number of other setpoint changes and included the USQD. The PMR package reflects the final setpoints and the USQD applied to Set Point Change Request EF-84-01. The actual setpoints were not changed until after the PMR was approved. The level of documentation included with this USQD was consistent with Wolf Creek and industry practice at the time, but certainly not up to today's standards. However, the USQD was completed according to procedure and resulted in the correct conclusion that no unreviewed safety question existed.

We acknowledge that there was an error in the licensing screening for the PMR. The PMR package contains a Licensing Review Supplement which was incorrectly completed in that when asked if the change described in the primary document involves a change to the FSAR the preparer checked the "No" box. A copy of the Unreviewed Safety Question Determination was provided to the Nuclear Regulatory Commission at the Predecisional Enforcement Conference on January 16, 1997.

Testing of Essential Service Water Underground Piping

As requested a review of implementation of pressure testing requirements for other systems with buried components was performed. The Essential Service Water System was the only system where changes to the method of testing relating to application of the "nonredundant system" definition were used.

Summary Statement on Apparent Violation 96021-02

As discussed at the Predecisional Enforcement Conference, WCNOG believes that each example is an isolated occurrence lacking any common cause. Based on our review of these occurrences, we do not perceive any "programmatic" deficiency that lead to the apparent violation. Aggregation is therefore inconsistent with section IV A of the Enforcement Policy.

The four occurrences are not similar to example I.C.12 (as quoted by the NRC at the enforcement conference), in that they do not reflect a significant lack of attention to detail, they have no safety significance, and they do not reflect a current regulatory concern. SECY-96-154 on page 5 makes it clear that example I.C.12 is intended to highlight a programmatic concern with a "current impact on the regulatory process." Procedural improvements were made at WCNOG in late 1995 and training on those improvements provided throughout 1996. Three of the four examples in the apparent violation occurred prior to these program changes and training and are therefore not indicative of the current 50.59 program. Additionally, WCNOG has committed to, and is in the process of, performing system functional assessments to identify and correct design discrepancies.

Therefore, we conclude the four examples to be isolated incidents with no common cause and no current safety or regulatory significance and similar to example I.D.5 of the enforcement policy.

Apparent Violation 50-48/96021-03:

This information addresses a concern noted by the NRC at the Predecisional Enforcement Conference that WCNOG may have been in violation of the Technical Specifications for greater than 35 hours. A review of the operating history of Wolf Creek back to issuance of Wolf Creek's Full Power License on June 4, 1985, revealed that Technical Specification Clarification (TSC) 009-85 was used in the October 1994, and March 1996, timeframes. While records indicate that both Centrifugal Charging Pumps (CCPs) were racked in for as long as 35.5 hours (on 3/22-3/24/96), both were not aligned with the Reactor Coolant System (RCS) (because of valve closure under clearance order or procedure) except during much shorter periods when swap over occurred. Per the footnote to the Technical Specification existing at the time, an inoperable pump may be energized for testing or for filling accumulators provided the discharge of the pump has been isolated from the RCS by a closed isolation valve with power removed from the valve operator, or by a manual isolation valve secured in the closed position. The maximum period in which both CCPs were operable and aligned with the RCS did not exceed 59 minutes. There is no safety significance to these occurrences because a single PORV has sufficient capacity to relieve the mass addition of two CCPs without exceeding Appendix G limits. Therefore, this apparent violation should not be separated from apparent violation 96021-04.

The following table summarizes the data that was collected to determine the length of time both CCPs were in-service during the swapping evolution. The times from the plant computer for the October 1994 occurrence have been corrected to account for Daylight Savings Time. The data shows that during the October 1994, and March 1996, timeframes both CCPs were racked in for periods up to 35.5 hours; however, during most of these periods, clearance orders or surveillance procedures were in effect requiring the isolation of one of the CCPs from the RCS. Therefore, the periods when both CCPs were energized and aligned with the RCS were fairly short, not exceeding 59 minutes. The last column of the table shows when clearances or procedures applied and when Technical Specification violations occurred. It should be noted that in 1995 License Amendment 89 added a four hour LCO, consequently the March 1996, occurrences only involved failure to enter the LCO.

The applicable procedures are attached to this submittal.

Time	Centrifugal Charging Pump "A" Breaker Position	Centrifugal Charging Pump "B" Breaker Position	Comments	Pull-to- Lock	Time Both CCP's Racked In (hours)	Clearance Order / Test Procedure - Requiring Isolation of one CCP
1994						
10/24/94 09:58	CLOSED	OPEN	C/O approved for removal by the SS. 'B' CCP restoration position noted as Pull-to-Lock	'B' CCP		C/O 94-1292-BG
10/24/94 10:12	CLOSED	CLOSED	BOTH PUMPS RACKED IN in accordance with the Clearance Order Restoration	'B' CCP	7.4	(see breakdown below)
10/24/94 10:15			STS BG-206 step 6.1.1 denoted 'A' CCP in service and 'B' CCP not in service and step 6.1.3 required BG-V8483B to be Closed isolating both CCPs from the RCS			T/S Violation for 3 minutes (10:12 - 10:15)
10/24/94 13:09			Testing Completed - Restoration opened BG-V8483B.			T/S Violation for 59 minutes (13:09 - 14:08)
10/24/94 13:22			STS BG-212 requires placing one CCP in Pull-to-Lock, then the other for testing purposes			STS BG-212
10/24/94 14:08			STS BG-210 step 6.1.8 verifies the 'B' CCP Discharge BG-V8483C is closed.	'B' CCP		STS BG-210
10/24/94 17:36	CLOSED	OPEN	PUMP "B" RACKED OUT			

Time	Centrifugal Charging Pump "A" Breaker Position	Centrifugal Charging Pump "B" Breaker Position	Comments	Pull-to- Lock	Time Both CCP's Racked In (hours)	Clearance Order / Test Procedure - Requiring Isolation of one CCP
10/24/94 20:58	CLOSED	CLOSED	BOTH PUMPS RACKED IN to swap CCPs for completion of STS BG-210. Step 6.2.7 verifies the 'A' CCP Discharge BG-V8384A is closed.		0.1	Both Pumps Racked in for swapping (8 Minutes) T/S VIOLATION (20:58 - 21:06)
10/24/94 21:06	OPEN	CLOSED	PUMP "A" RACKED OUT per C/O 94-1314-BG			
1996						
3/22/96 14:31	CLOSED	OPEN	C/O 96-0512-BG approved for hanging by the Shift Supervisor ('B' CCP Discharge Isolated BG-V8485B)			
3/22/96 16:20	CLOSED	CLOSED	BOTH PUMPS RACKED IN		35.5	KJ Testing w/ C/O 96-0512-BG
3/24/96 03:52	CLOSED	OPEN	PUMP "B" RACKED OUT			
3/24/96 08:22			C/O 96-0512-BG approved for removal by the Shift Supervisor. (BG-V8485B restored to Locked Open)			Failure to enter T/S 3.5.4 LCO (43 minutes with both CCPs aligned to the RCS (08:22 - 09:05))
3/24/96 08:58	CLOSED	CLOSED	BOTH PUMPS RACKED IN for STS BG-201		1.1	STS BG-201
3/24/96 09:03			SWAP FROM 'A' to 'B' CCP per SYS BG-201 for STS BG-201 testing			

Time	Centrifugal Charging Pump "A" Breaker Position	Centrifugal Charging Pump "B" Breaker Position	Comments	Pull-to- Lock	Time Both CCP's Racked In (hours)	Clearance Order / Test Procedure - Requiring Isolation of one CCP
3/24/96 09:05			SWAP COMPLETE 'A' DISCHARGE ISOLATED FROM THE RCS			
3/24/96 09:51			SWAP FROM 'B' to 'A' CCP per SYS BG-201 for STS BG-201 testing			Failure to enter T/S 3.5.4 LCO
3/24/96 09:52			SWAP COMPLETE 'B' DISCHARGE ISOLATED FROM THE RCS			(1 minute with both CCPs aligned to the RCS)
3/24/96 10:07	CLOSED	OPEN	PUMP "B" RACKED OUT			96-0530-BG
3/26/96 08:00	CLOSED	CLOSED	BOTH PUMPS RACKED IN		10.2	KJ Testing w/ C/O 96- 0514-BG
3/26/96 08:35			SWAP FROM 'A' to 'B' CCP per SYS BG-201			Failure to enter T/S 3.5.4 LCO
3/27/96 08:59			SWAP COMPLETE 'A' DISCHARGE ISOLATED FROM THE RCS (also documented on C/O 96-0514-BG)			(24 minutes with both CCPs aligned to the RCS (08:35 - 08:59))
3/26/96 18:15	OPEN	CLOSED	PUMP "A" RACKED OUT			

Apparent Violation 50-482\96021-04:

Additional Information Requested for Technical Specification Clarification 026-85

Inspection Report 96-21 at page 14 lists TSC 026-85 as an example of a clarification which provided guidance contrary to Technical Specifications requirements and could have resulted in non-compliance due to inadequate screenings.

"Technical Specification Clarification 026-85 allowed increasing power while the quadrant power tilt ratio exceeded the prescribed limit. This clarification involved a change to Technical Specification 3.2.4.a.4 which prohibited increasing power with the quadrant power tilt ratio greater than the prescribed limit."

TSC 026-85 stated "Action Statements a.1 and a.2 are Independent Actions. Action Statements a.3 and .4 are Dependent Statements (a.4 is tied to Action a.3). Action a.3 and thus a.4, should not be entered until just prior to 24 hours after exceeding the QPTR limit." This TSC also states "An allowance of two (2) hours is given to either establish QPTR within limits or reduce power 3% RTP / 1% QPTR and reset trip setpoints. This allows use of STS RE-012 as written and does not prohibit power increase within the two (2) hour limit." Technical Specification 3.2.4.a does not prohibit increasing power in the two hour time allowance for reducing QPTR to within limits.

The circumstances of the October 25, 1996 QPTR alarm are different than guidance provided in TSC 026-85. During the October 25 event, Operating crews determined that the high neutron flux trip setpoints would not be adjusted within the time allowed in specification 3.2.4. For that reason, power was reduced to less than 50%, to place the plant in a condition where the specification did not apply. Subsequent power escalation was allowable since the provisions of Technical Specification 3.0.4 are not applicable to Technical Specification 3.2.4. NRC staff stated they agreed with the application of Technical Specification 3.2.4 in this case.

Had TSC 026-85 been used on October 25, 1996, no violation of Technical Specifications would have occurred since the only guidance provided in TSC 026-85 other than that available in the specification itself, is that: Action Statements a.1 and a.2 are independent action statements. This is justified by the lack of a conjunction between a.1. and a.2.

Action Statements a.3 and a.4 are dependent statements. This is justified by the conjunctive "and" between Actions a.3 and a.4.

Action Statements a.3, and thus a.4, should not be entered until just prior to 24 hours after exceeding the QPTR limit. This recommendation does not violate nor constitute a change to Technical Specification 3.2.4.

Wolf Creek Position:

For these reasons, the statements contained in TSC 026-85 did not change Technical Specification 3.2.4.

Additional Information Requested for Technical Specification Clarification 001-94

Inspection Report 96-21 at page 15 lists Technical Specification Clarification 001-94 as an example of a clarification which provided guidance contrary to Technical Specifications requirements and could have resulted in non-compliance due to inadequate screenings.

"Technical Specification Clarification 001-94 allows the reactor coolant system to be cooled down, an activity which involves a positive reactivity change, with one source range channel of nuclear instrumentation inoperable. This clarification involved a change to Technical Specification 3.3.1, Table 3.3-1, Functional Unit 6.b, "Source Range Shutdown," Action 5, which specified that with one source range inoperable, all operations involving positive reactivity changes be suspended."

Technical Specification Table 3.3-1, Action 5 - a. States "With the number of OPERABLE channels one less than the Minimum Channels Operable requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip Breakers, and suspend all operations involving positive reactivity changes within the next hour." TSC 001-94 states, in part "No actions, other than taking the necessary measures to restore the channel to OPERABLE status, is required for 48 hours." TSC 001-94 superseded TSIR (Technical Specification Interpretation Request) 011-86. TSIR 011-86 stated "A plant cooldown may take place with an inoperable source range provided the RCS is borated to the cold-shutdown Xenon-free condition prior to commencing the cooldown." This TSIR also stated "Per this Action Statement the reactor trip breakers must be opened within 48 hours."

Wolf Creek Position:

Technical Specification 3.3.1 does not prohibit positive reactivity changes with one source range inoperable for the first 48 hours. Neither TSC 001-94 nor TSIR 011-86, which existed from September 1986 until superseded by TSC 001-94 in January 1994, changed or cause a violation of Technical Specification requirements. Therefore TSC 001-94 would not have caused a violation of Technical Specification 3.3.1.

Additional Information Requested for Technical Specification Clarification 033-85

Inspection Report 96-21 at page 14 lists TSC 033-85 as an example of a clarification which provided guidance contrary to Technical Specifications requirements and could have resulted in non-compliance due to inadequate screenings.

"Technical Specification Clarification 033-85 allowed containment penetrations to be considered operable if dedicated operators were assigned to close the inoperable containment isolation valves. This

clarification involved a change to Technical Specification 3.6.1.1 which specifies that all containment penetrations be operable by automatic isolation valves."

TSC 033-85 states "For the purpose of Local Leak Rate Testing, opening of the vent and drain valves simultaneously shall not be construed as a breach of containment integrity, so long as an individual is in constant communication with the control room, ..."

Wolf Creek Position

Wolf Creek agrees that the use of TSC 033-85 resulted in a violation of Technical Specification 3.6.1.1, and LER 96-015-00 was submitted to report the event. In addition, TSC 033-85 resulted in a change to Technical Specification 1.7.a.2 which was not previously approved by the Nuclear Regulatory Commission.

Additional Information Requested for Technical Specification Clarification 004-94

TSC 004-94 was determined to allow for the potential violation of Technical Specification Surveillance Requirement 4.8.1.1.2a.4 on October 21, 1996. This was determined during the review of all TSCs in response to PIR 96-2605.

The TSC 004-94 was initiated to take credit for the Generic Letter 93-05's guidance on Emergency Diesel Generator (EDG) Surveillance Requirements (i.e. opposite train testing with a Diesel determined to be inoperable). The guidance in the generic letter was also included in the Technical Specification Amendment Request 101 which was received in November, 1996. During the time frame from the initiation of the TSC until the approval of Amendment 101, the potential to violate the Technical Specification Surveillance Requirement 4.8.1.1.2a.4 existed.

To determine if this TSC had been used by Wolf Creek to violate the noted surveillance requirement, a review of the operating history was performed by Operation's Support personnel. This review included all EDGs Outages from the date the Technical Specification Clarification was approved, July 5, 1994, through October 22, 1996, when it was voided.

To capture all of the EDG Outages a search was performed on the Equipment Out-of-Service Log. This search revealed 47 separate entries for EDG Outages. Each of these entries were then reviewed to determine if the TSC 004-94 had been applied to allow for the violation of Technical Specifications.

For each entry it was determined that Technical Specifications requirements were maintained and surveillance testing was completed as required. At no time was any reference to the TSC 004-94 noted on Logs or Procedures.

Additional Information Requested for Technical Specification Clarification 002-96

Inspection Report 96-21 page 15 lists Technical Specification Clarification 002-96 as an example of a clarification which provided guidance contrary to Technical Specifications requirements and could have resulted in non-compliance due to inadequate screenings.

"Technical Specification Clarification 002-96 allows one of the two required source range neutron flux monitors to be considered operable when in the refueling condition when powered from a nonsafety-related power supply. This clarification involved a change to Technical Specification 3.9.2, which specifies that two source range neutron flux monitors be OPERABLE in the refueling condition (Mode 6). Although Technical Specification 3.9.2 does not specify the power source requirement, the definition of OPERABILITY does include a requirement for electric power, which refers to normal safety-related power."

Wolf Creek Position

TSC 002-96 stated that source range monitors are considered OPERABLE when powered from a non-safety related power supply provided all Surveillance Requirements are met. Only one source range shall be powered from non-safety related power at a time. The Basis for this TSC was that Technical Specification 3.8.3.2 only requires one division of electrical power be energized for core alterations, positive reactivity changes or movement of irradiated fuel. This lead Wolf Creek to believe that for purposes of Technical Specification 3.9.2, it would be permissible to power one source range monitor from a non-safety related supply.

TSC 002-96 has not been used to maintain operability of Source Range detectors. Therefore, Technical Specifications were not violated. Further, the ability to monitor the reactivity condition of the core would not have been jeopardized by the use of TSC 002-96.

Nevertheless, WCNOG has decided that it was not conservative to construe Technical Specification 3.8.2 as altering the meaning of Technical Specification 3.9.2. Therefore, Wolf Creek voided TSC 002-96 on October 22, 1996.

During review of Inspection Report 96-021, WCNOG also noted the following discrepancy:

Residual Heat Removal Temporary Shielding:

On page 22 of Inspection Report 96-021, the second paragraph, third and fourth sentences, state: "The team considered the temporary shielding controls to be weak for not requiring an engineering review of erected temporary shielding and periodic inspections of installed temporary shielding. The licensee subsequently revised Procedure AP 25A-700, 'Use of Temporary Lead Shielding,' to require periodic inspections, verify shielding installation conformed with the engineering disposition, and evaluation of the need for permanent shielding if temporary shielding is installed for 6 months."

Procedure AP 25A-700, revision 0, which was effective at the time of this inspection, did require monthly inspections by Health Physics of all installed temporary shielding (section 6.4.5). Revision 1 of this procedure, issued on October 30, 1996, included a requirement to initiate a permanent shielding modification if temporary shielding had needed to be in place for longer than six months (step 6.4.6). Three forms associated with this procedure were also revised. Form APF 25A-700-01, "Temporary Shielding Request," was revised to include a note that states: "If there is any question regarding whether the proposed installation in any way threatens safety-related equipment (i.e., not properly supported) using the above methods a qualified engineer shall be contacted for a review of the installation." Form APF 25A-700-02, "Engineering Shielding Disposition," was revised to include a checklist for shielding dispositions. Form APF 25A-700-03, "Shielding Installation/Removal/Inspection," was revised to include the same note added to Form APF 25A-700-01 and an additional note that states: "Each Lead Blanket shall be attached to the supporting structure with a minimum of 1 PLT5H-TL31/N cable tie per 20 pounds of blanket weight. A maximum of 1 cable tie per blanket grommet shall be utilized."

REACTIVITY CONTROL SYSTEMS

CHARGING PUMP - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.3 One centrifugal charging pump in the boron injection flow path required by Specification 3.1.2.1 shall be OPERABLE and capable of being powered from an OPERABLE emergency power source.

APPLICABILITY: MODES 4, 5, and 6.

ACTION:

With no centrifugal charging pump OPERABLE or capable of being powered from an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.1.2.3.1 The above required centrifugal charging pump shall be demonstrated OPERABLE by verifying, on recirculation flow, that the pump develops a differential pressure of greater than or equal to 2400 psid when tested pursuant to Specification 4.0.5.

4.1.2.3.2 All centrifugal charging pumps, excluding the above required OPERABLE pump, shall be demonstrated inoperable* at least once per 31 days, except when the reactor vessel head is removed, by verifying that the motor circuit breakers are secured in the open position.

*An inoperable pump may be energized for testing or for filling accumulators provided the discharge of the pump has been isolated from the RCS by a closed isolation valve with power removed from the valve operator, or by a manual isolation valve secured in the closed position.