UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

July 12, 2007

Rick A. Muench, President and
Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR WOLF CREEK NUCLEAR OPERATING CORPORATION REGARDING WOLF CREEK GENERATING STATION [TAC NO. MD5985, NOED NO. 07-4-001]

Dear Mr. Muench:

By letter dated July 10, 2007, Wolf Creek Nuclear Operating Corporation (WCNOC) confirmed a July 8, 2007, verbal request that the NRC exercise discretion to not enforce compliance with the actions required in Wolf Creek Generating Station, Technical Specification (TS) 3.8.1 "AC Sources - Operating," Actions H.1 and H.2, for Diesel Generator A.

WCNOC requested that a Notice of Enforcement Discretion (NOED) be granted pursuant to the NRC's policy regarding exercise of discretion for an operating facility, described in Section VII.C of the NRC's Enforcement Policy, and be effective for 72 hours for TS 3.8.1. expiring on July 11, 2007 at 2:06 p.m. (all times discussed in this letter refer to Central Daylight Time). Although WCNOC initially verbally requested an additional 72 hours, your staff expected all work and associated diesel generator (DG) testing to be completed between 3:00 - 5:00 a.m. on July 9, 2007, which was within the proposed extended TS allowed outage time frame which would have expired at 2:06 p.m. on July 11, 2007.

This letter documents our telephone conversation on July 8, 2007, at 11:30 a.m., when we verbally granted enforcement discretion. Please note that the allowed outage time extension explicit in the enforcement discretion approved by the NRC was for only an additional 48 hours not the 72 hours you initially requested during the teleconference. During the NOED telephone conference, the NRC questioned why the 72 hours was necessary to accomplish the needed repairs and testing based on our understanding of the maintenance tasks that needed to be completed and the probabilistic risk evaluation supporting your request. WCNOC subsequently confirmed, that all repairs and testing could be satisfactorily completed within an additional 48 hour time period. As such, WCNOC revised the verbal enforcement discretion time request, from 72 hours to 48 hours and documented this revised request for enforcement discretion in a letter dated July 10, 2007. Subsequent to the verbal authorization of enforcement discretion, we understand that the condition causing the need for this enforcement discretion was corrected by you causing you to exit from the actions required in TS 3.8.1 and from this NOED at 8:06 p.m. on July 9, 2007. The basis for our decision to grant the exercising of enforcement discretion is provided in the following discussion.

Your letter documented information previously discussed with the NRC in a telephone conference which occurred at 9:00 a.m. on July 8, 2007. The principal NRC staff members who participated in the telephone conference included: Art Howell, Director, Division of Reactor Projects, (DRP), RIV; Tony Vegel, Deputy Director, DRP, RIV; Roy Caniano, Acting Director, Division of Reactor Safety (DRS), RIV; John Lubinski, Deputy Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation (NRR); Vincent Gaddy, Chief, Project Branch B, DRP, RIV; Tom Hiltz, Chief, Plant Licensing Branch 4, NRR; George Wilson, Chief, Electrical Branch, NRR; Russ Bywater, Senior Reactor Analyst, DRS, RIV; Steve Cochrum, Senior Resident Inspector, DRP, RIV; Chris Long, Resident Inspector, DRP, RIV; Jack Donohew, Project Manager, NRR; Jeff Circle, Senior Reliability and Risk Analyst, NRR; See-Meng Wong, Senior Reactor Analyst, NRR; and Jay Robinson, Reactor Engineer, NRR.

Your staff requested enforcement discretion to preclude required entry into Mode 3 (HOT STANDBY) by 8:06 p.m. on July 8, 2007. Specifically, on July 5, 2007, at 2:06 p.m., you entered TS 3.8.1 Action Statement B.4.1, due to planned surveillance testing for Diesel Generator A. During the surveillance test, problems occurred with the diesel engine cooling water system which challenged the restoration of the diesel generator within the 72 hour TS allowed outage time. The diesel engine cooling water system is a closed loop system that cools the diesel generator engine and consists of a jacket cooling water system and an intercooler cooling system. The intercooler cooling system consists of an engine-driven intercooler pump, intercooler heat exchanger, piping, valves, controls and instrumentation. The intercooler pump circulates water through the intercooler heat exchanger and the engine-mounted intercoolers. The jacket cooling water system consists of an engine-driven pump, a jacket water heat exchanger, an electric motor- driven keep warm pump, an electric keep warm heater, piping, valves, controls, and instrumentation. The engine driven pump circulates water through the cylinder jackets and the jacket water heat exchanger, where extracted heat is transferred to the essential service water system. When in standby status, the electric motor-driven pump circulates water through the electric heater and the engine cylinder jackets to keep the engine warm.

On July 8, 2007, at 2:06 p.m., if Diesel Generator A had not been restored, actions were required to be taken to place the unit in at least Mode 3 (HOT STANDBY) within the next 6 hours, and in Mode 5 (COLD SHUTDOWN) within the following 36 hours. On July 8, your staff requested that the 72 hour TS allowed outage time (AOT) be extended an additional 72 hours to support corrective maintenance activities on the diesel engine cooling water system without having to shut down. As a result of discussions with NRC staff during the teleconference on July 8, your staff modified your request to ask for the TS AOT to be extended 48 hours instead of 72 hours.

TS 3.8.1, “AC Sources - Operating,” requires in Modes 1 through 4 that two diesel generators capable of supplying the onsite Class 1E power distribution subsystem be operable. Action H.1 of TS 3.8.1 states: “With one diesel generator inoperable, restore the diesel generator to an operable status within 72 hours or be in at least HOT STANDBY within 6 hours.” Action H.2 of TS 3.8.1 states: “With one diesel generator inoperable, restore the diesel generator to an operable status within 72 hours or be in at least COLD SHUTDOWN within 36 hours.”

WCNOC informed the NRC staff that on July 5, 2007, at 2:06 p.m., Diesel Generator A was declared inoperable to perform a scheduled surveillance. During the surveillance test, increased leakage was detected on the diesel generator engine-driven intercooler pump shaft seal. At 2:20 p.m., it was determined that the diesel generator engine-driven intercooler pump had a seal leak of approximately 20 ml/min and the jacket/intercooler water leakage limit was 9.1 ml/min. During repairs to the intercooler pump shaft seal, the pump impeller and wear rings were replaced. Post maintenance checks discovered a leak on the jacket water pump seal and that the gear box that drives both the intercooler and engine-driven jacket water pumps was abnormally hot. After the pump was disassembled, it was found that the sleeve bearing and shaft were damaged and needed to be replaced. Maintenance to repair the sleeve bearings and the shaft and required post-maintenance testing would result in exceeding the 72 hour allowed outage time of TS 3.8.1, Action B.4.1.

WCNOC determined that work activities on the Diesel Generator A performed in June 2007, which involved installing a gasket in the bearing housing for the engine driven water pump drive idler resulted in pump component misalignments that caused the problems experienced on July 5, 2007. Diesel Generator B was rebuilt a few months prior and had not exhibited similar problems. Diesel Generator B also successfully passed all of its TS required monthly surveillance runs and did not exhibit leakage from the jacket water or intercooler pumps. As such, it is believed no common cause failure was introduced in Diesel Generator B.

Based on the information provided in the telephone conversation on July 8, 2007, and in your letter dated July 10, 2007, the NRC has determined that Criterion B.2.1.1.a of NRC Inspection Manual Part 9900, “Technical Guidance, Operations - Notices of Enforcement Discretion,” was met. The NRC reviewed your written request for enforcement discretion dated July 10, 2007, and verified consistency between your revised oral and written requests. The NRC’s basis for this discretion considered: (1) the availability of a redundant train; (2) the compensatory measures to reduce the probability of a plant transient while ensuring the availability of other safety-related equipment; (3) the availability of offsite electrical power; and (4) the quantitative risk assessment of the condition which indicated that the risk associated with increasing the allowed outage time an additional 48 hours did not cause the risk to exceed the level determined acceptable during normal work controls and, therefore, there is no net increase in radiological risk to the public.

The WCNOC final quantitative risk analysis indicated that the incremental conditional core damage probability (ICCDP) for the proposed 48 hour extension was 1.15E-06, and the incremental conditional large early release probability (ICLERP) for the proposed 48 hour extension is 2.25E-09. The value for ICLERP is less than the guidance threshold in Inspection Manual Part 9900 Technical Guidance. Although the value for ICCDP does exceed the guidance threshold of less than or equal to 5.0E-07, the calculated ICCDP did not consider the implied risk of shutting down the plant with only one available diesel generator, the availability of the Sharpe Station to mitigate a station blackout event, and a favorable weather forecast for the duration of the requested time period.

To further mitigate the risk impact, as mentioned in (2) above, WCNOC committed to implement a series of compensatory actions for the duration of the enforcement discretion period. Some of the compensatory actions that WCNOC committed to implement included: (1) avoidance of testing and maintenance impacting availability of Safety Bus B, including but not limited to essential service water, motor-driven auxiliary feedwater pump, turbine-driven

auxiliary feedwater pump, component cooling water, residual heat removal, air conditioning units, all 125 Vdc system batteries, and the associated diesel generator to maximize the mitigative response to a station blackout; (2) ensuring no switchyard work is allowed; (3) enhanced operator sensitivity to safety bus electrical supply issues to recognize and respond expeditiously to a station blackout or loss of offsite power event; (4) fire bridgade briefing to review the actions to be taken due to the Diesel Generator B fire suppression system being out of service; (5) continuous fire watch until Diesel Generator A is declared operable; (6) briefing operators on the important risk significant manual actions that support the request for enforcement discretion; (7) continual monitoring by the grid operator regarding grid condition to anticipate challenges to offsite power availability; and (8) availability of the Sharpe Station to mitigate a station blackout and station operator just-in-time training.

As discussed in your July 10, 2007, letter, WCNOC implemented the compensatory actions summarized above, to minimize the plant risk during the enforcement discretion period. The NRC staff determined that, although the WCNOC risk analysis indicated that the ICCDP and ICLERP would increase slightly as a result of the enforcement discretion, the compensatory measures committed to by the licensee (but not quantified in the risk assessment) would substantially reduce this risk increase. The NRC staff determined that, based on qualitative judgement, the compensatory measures were sufficient to result in no net increase in radiological risk.

On the basis of the NRC staff's evaluation of your request, we have concluded that granting this NOED is consistent with the Enforcement Policy and staff guidance and has no adverse impact on public health and safety. Therefore, as we communicated to your staff at 11:30 a.m. on July 8, 2007, it is our intention to exercise discretion to not enforce compliance with TS 3.8.1, Action H.1 and H.2 for a period of 48 hours from 2:06 p.m., July 8, 2007, to 2:06 p.m. July 10, 2007. This 48 hour time period differs from your initial verbal request of 72 hours, but is consistent with the modified request during the telephone call and with the time noted in your letter dated July 10, 2007.

In addition, as discussed on July 8, 2007, the NRC staff agrees with WCNOC's determination that a follow-up TS amendment request was not needed. The staff finds that a TS amendment (either a temporary or permanent amendment) needed for circumstances similar to those addressed by the NOED is not necessary because it involves a nonrecurring noncompliance and only involves a single request for extending the period of time that an inoperable plant component must be restored to operable status as specified per the plants TS.

As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

/RA TPGwynn for/

Bruce S. Mallett
Regional Administrator

Docket: 50-482
License: NPF-42

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