



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125**

August 18, 2011

Matthew W. Sunseri, 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. ME6881, NOED NO. 11-4-001]**

Dear Mr. Sunseri:

By letter dated August 16, 2011, Wolf Creek Nuclear Operating Corporation (WCNOC), the licensee for Wolf Creek Generating Station (Wolf Creek) confirmed an August 14, 2011, verbal request that the NRC exercise discretion to not enforce compliance with the actions required in Wolf Creek Technical Specification 3.7.5, "Auxiliary Feedwater (AFW) System," Required Actions C.1 and C.2.

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 3.8 of the NRC's Enforcement Policy, and be effective for 24 hours, expiring on August 15, 2011, at 11:45 a.m. (all times discussed in this letter refer to Central Time).

This letter documents our telephone conversation on August 14, 2011, at 9:45 a.m., when we verbally granted enforcement discretion. The basis for our decision to grant enforcement discretion is provided in the following discussion.

Your letter documented information previously discussed with the NRC in a telephone conference on August 14, 2011, at 8:15 a.m. The principal NRC staff members who participated in that telephone conference included Kriss Kennedy, Director, Division of Reactor Projects (DRP), RIV; Robert Caldwell, Acting Director, Division of Reactor Safety (DRS), RIV; Jeff Clark, Acting Deputy Director, DRP, RIV; Louise Lund, Deputy Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation (NRR); Geoffrey Miller, Chief, Project Branch B, DRP, RIV; John Jolicouer, Chief, Licensing Processes Branch, NRR; Greg Casto, Chief, Balance of Plant Branch, NRR; Thomas Farnholtz, Chief, Engineering Branch 1, DRS, RIV; David Loveless, Senior Reactor Analyst, DRS, RIV; Randy Hall, Senior Project Manager, NRR; Richard Deese, Senior Project Engineer, DRP, RIV; Chris Long, Senior Resident Inspector, DRP, RIV and Jeff Mitman, PRA Operational Support Branch, NRR.

Your staff requested enforcement discretion to preclude commencing a plant shutdown at 11:45 a.m. on August 14, 2011. Previously at 11:45 a.m. on Thursday, August 11, 2011, the turbine driven auxiliary feedwater (TDAFW) pump was declared inoperable due to the discovery of lubricating oil particulate levels higher than allowed by the WCNOG Lubricant Analysis procedure in a routine oil sample. WCNOG concluded the lubricating oil was contaminated from the inadvertent addition of eight ounces of electrohydraulic control (EHC) fluid (Fyrquel®) to the pump turbine oil reservoir in March 2011. Although the reservoir was flushed and the oil replaced in March, your staff concluded interaction of residual EHC fluid in the system with the lubricating oil resulted in the high particulate levels observed in the August 11 oil sample results. The inoperability of the TDAFW pump caused your staff to enter Technical Specification 3.7.5, Required Action B.1, which specified a 72 hour completion time to restore the pump to service. Required Actions C.1 and C.2 of Technical Specification 3.7.5 would require placing the unit in Mode 3 in 6 hours and Mode 4 in 12 hours if the pump is not restored to operable status within the 72 hour completion time specified in Required Action B.1.

After declaring the pump inoperable, your staff took immediate actions to begin draining, flushing and refilling the lubricating oil system on the TDAFW pump to restore the oil properties within specification. After several unsuccessful attempts to restore the oil properties through draining and refilling, your staff began disassembly and cleaning of the pump bearing housings and connected an in-line recirculation filtration skid to further remove particulates from the oil. The filtration activities appeared to be effective at reducing oil particulates; however, given the time needed to restore and test the pump following the cleaning and filtering operations, WCNOG requested additional time beyond the completion time of Technical Specification 3.7.5 Required Action B.1 to return the pump to operable status.

Based on the information provided in the telephone conversation on August 14, 2011, and in your letter dated August 16, 2011, the NRC has determined that Criterion B.2.1.1.a of NRC Inspection Manual Part 9900, "Technical Guidance, Operation – Notice of Enforcement Discretion," was met. The NRC reviewed your written request for enforcement discretion and verified consistency between your oral and written requests. The NRC's basis for this discretion considered: (1) the compensatory measures to reduce the probability of a plant transient while ensuring the availability of other safety-related equipment; (2) the availability of offsite electrical power; and (3) the quantitative risk assessment of the condition which indicated that the risk associated with increasing the allowed outage time an additional 24 hours did not cause the risk to exceed the level determined acceptable during normal work controls. Therefore, the NRC determined there was no net increase in radiological risk to the public during the period of enforcement discretion based on the compensatory risk management measures taken.

The WCNOG final quantitative risk analysis indicated that the incremental conditional core damage probability (ICCDP) for the proposed 24 hour extension is $1.20\text{E-}07$, and the incremental conditional large early release probability (ICLERP) for the proposed 24 hour extension results is $5.18\text{E-}9$. These values are both less than the guidance thresholds in Inspection Manual Part 9900 Technical Guidance and were independently corroborated by NRC analysts. To further mitigate the risk impact in (1) above, WCNOG committed to implement a series of compensatory actions for the duration of the enforcement discretion period. Some of the compensatory actions that WCNOG committed to implement included: (1) avoidance of testing and maintenance impacting availability of both trains of spent fuel pool cooling, component cooling water, emergency diesel generators, essential service water, class 1E switchgear NB buses, 125 VDC system NK buses and both motor driven auxiliary feed pumps to maximize the mitigative

response to a station blackout event; (2) ensuring no switchyard work is allowed; (3) enhanced operator sensitivity to safety bus electrical power supply issues to recognize and respond expeditiously to a station blackout or loss of offsite power event; (4) control room staff briefing as just in time training to review alternate auxiliary feedwater supply via the diesel fire pump; (5) continual monitoring by the grid operator regarding grid conditions to anticipate challenges to offsite power availability; and (6) availability of the Sharpe Station to mitigate a station blackout event.

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 9:45 a.m. on August 14, 2011, we exercised discretion to not enforce compliance with Technical Specification 3.7.5, Required Actions C.1 and C.2, for a period of 24 hours from 11:45 a.m. August 14, 2011, to 11:45 a.m. August 15, 2011.

In addition, as discussed on August 14, 2011, the NRC staff agrees with WCNO's determination that a follow-up Technical Specification amendment was not needed. The staff concluded that an amendment (either a temporary or permanent amendment) for circumstances similar to those addressed by the NOED is not necessary because this NOED 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 plant's Technical Specifications.

The NRC noted that your staff commenced a shutdown of Wolf Creek at 10:51 a.m. on August 15, 2011, during the period of enforcement discretion after oil sample results continued to indicate elevated levels of nonmetallic particulates. Your staff subsequently declared the TDAFW pump operable at 12:03 p.m. on August 15, 2011, and returned the unit to full power after completion of an engineering disposition supporting sample results indicating acceptable particulate levels from two independent laboratories. We intend further review of this event and the circumstances leading up to it under the baseline inspection program, including review of the station plans for monitoring and long term corrective actions associated with this issue.

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/

Kriss M. Kennedy, Director
Division of Reactor Projects

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License: NPF-42

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ADAMS: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		<input checked="" type="checkbox"/> SUNSI Review Complete	Reviewer Initials: RWD
		<input checked="" type="checkbox"/> Publicly Available	<input checked="" type="checkbox"/> Non-Sensitive
		<input type="checkbox"/> Non-publicly Available	<input type="checkbox"/> Sensitive

C:RIV/DRP/B	SRA:RIV/DRS	PM:NRR/DORL/LPL4	D:RIV/ACES
GMiller	DLoveless	RHall	HGepford
/RA/	/RA/	E-GBM	/RA/
8/18/11	8/18/11	8/18/11	8/18/11
D:RIV/DRS	DD:NRR/DORL	D:RIV/DRP	
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