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# WOLF CREEK

NUCLEAR OPERATING CORPORATION

April 14, 2006

Richard A. Muench  
President and Chief Executive Officer

WM 06-0013

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

- References:
- 1) Letter dated February 1, 2006, from L. J. Smith, USNRC to WCNOC – NRC Inspection Report 05000482/2005008
  - 2) Letter RA 06-0037, dated March 8, 2006, from K. J. Moles, WCNOC, to USNRC
- Subject: Docket 50-482: Wolf Creek Nuclear Operating Corporation's (WCNOC's) Response to Noncited Violation 2005008-03 – NRC Inspection Report 05000482/2005008

Gentlemen:

Pursuant to 10 CFR 50.4, and in accordance with guidance in the Nuclear Regulatory Commission's (NRC's) Enforcement Policy, Wolf Creek Nuclear Operating Corporation (WCNOC) hereby denies the violation described as noncited violation (NCV) 05000482/2005008-03 "Failure to Ensure Redundant Safe Shutdown Systems Located in the Same Fire Area Are Free of Fire Damage," documented in Reference 1, NRC Inspection Report 05000482/2005008. As discussed in reference 2, WCNOC requested a 45 day extension to respond to this violation, which was allowed by the NRC. In reference 1 the NRC stated that the licensee was in violation of License Condition 2.C(5)(a) for failing to meet the technical requirements of 10 CFR Part 50, Appendix R, as required by SER 9.5.1.7. Attachment I to this letter sets forth the factual and regulatory basis for our denial of the subject NCV. This issue was entered into our corrective action program (Performance Improvement Request (PIR) 2006-0035).

This issue does not constitute a safety significant concern. Potential operator mitigating actions for a fire outside the Control Room at Wolf Creek Generating Station (WCGS) were evaluated for feasibility considering the criteria of NRC Inspection Module 71111.05T. Section 1.2.b of the subject inspection report (Reference 1) states that the NRC inspection team found that the

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manual operator actions reviewed were reasonable, and could be performed within the analyzed time limits. WCNOG believes the current design, commitments and practice ensure the health and safety of the public and preserve the ability to shutdown in the event of a fire. However, resolution of the NCV to achieve compliance would be a very significant cost in plant modifications with little or no safety improvement. WCNOG is dedicated to protecting the health and safety of the public and feels this is an issue of compliance based on a change in interpretation.

WCGS License Condition 2.C(5)(a) states, "The Operating Corporation shall maintain in effect all provisions of the approved fire protection program as described in the SNUPPS Final Safety Analysis Report for the facility through Revision 17, the Wolf Creek site addendum through Revision 15, and as approved in the SER through Supplement 5, subject to provisions b & c below." WCNOG believes the subject NCV to be contrary to this license condition. Therefore, WCNOG chooses to deny this NCV for the following reasons:

- 1) WCNOG is not required by law to meet 10 CFR 50, Appendix R.
- 2) The SER (NUREG-0881, "Safety Evaluation Report related to the operation of Wolf Creek Generating Station, Unit No. 1") does not require WCNOG to meet the requirements of 10 CFR 50, Appendix R.
- 3) SERs do not contain requirements.
- 4) The exception to 10 CFR 50, Appendix R, Section III.G.2 was approved by the NRC as part of the original licensing basis for WCGS and has not been revised.

While licensees are not required to provide written responses to NCVs, the guidance described in the NRC's Enforcement Policy allows licensees to deny violations described as NCVs.

In addition, WCNOG believes that NCV 2005008-03 is a change in interpretation of WCNOG's licensing basis by the NRC Region IV inspectors. Therefore, should the NRC determine this NCV stands, WCNOG requests the NRC perform a backfit evaluation for the change in interpretation in accordance with 10 CFR 50.109, "Backfitting."

There are no commitments contained within this letter.

If you have any questions concerning this matter, please contact me at (620) 364-4000, or Mr. Kevin Moles at (620) 364-4126.

Very truly yours,



Richard A. Muench

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Attachment

cc: J. N. Donohew (NRC), w/a  
W. B. Jones (NRC), w/a  
B. S. Mallett (NRC), w/a  
J. M. Mateychick (NRC), w/a  
L. A. Reyes (NRC), w/a  
L. J. Smith (NRC), w/a  
Senior Resident Inspector (NRC), w/a

**DENIAL OF NONCITED VIOLATION 2005008-03  
NRC INSPECTION REPORT 05000482/2005008**

**Restatement of Noncited Violation**

On February 1, 2006, Nuclear Regulatory Commission (NRC) Inspection Report 050004-82/2005008 was issued to document the results of the Wolf Creek Generating Station (WCGS) NRC triennial fire protection inspection. Noncited Violation (NCV) 2005008-03 (of very low safety significance, "Green") was issued for failure to ensure that redundant trains of safe shutdown systems in the same fire area were free of fire damage. The enforcement section of NCV 2005008-03 states in part:

*The Fire Hazard Analysis states that it will comply with the technical requirements of Appendix R or utilize a diverse means to do so. Appendix R, Section III.G.2 to 10 CFR Part 50 requires that cables whose fire damage could prevent the operation or cause maloperation of safe shutdown functions be physically protected from fire damage. Contrary to this requirement, the licensee implemented a methodology that utilized manual operator actions as a diverse means to mitigate the effects of fire damage in lieu of providing physical protection from fire damage. This is a violation of License Condition 2.C(5)(a) for failing to meet the technical requirements of 10 CFR Part 50, Appendix R, as required by SER Section 9.5.1.7. Because this finding is of very low safety significance, this violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy:....*

**Admission or Denial**

Wolf Creek Nuclear Operating Corporation (WCNOC) denies the violation.

**Basis for Denying the Noncited Violation**

During the licensing of WCGS, the Final Safety Analysis Report (FSAR) was submitted for review and approval. Among other things, the Wolf Creek FSAR described WCGS commitments for the fire protection program, and compared the program to 10 CFR 50, Appendix R, identifying any Wolf Creek exceptions thereto. The NRC reviewed the FSAR and documented these reviews in the Safety Evaluation Report (SER) for WCGS (NUREG-0831) and subsequent supplements. The initial SER stated that the staff would condition the operating license to require the applicant to meet the technical requirements of Appendix R to 10 CFR 50, or provide equivalent protection. The NRC documented final acceptance of the WCGS fire protection program in SER Supplement 5. In 1985 the license was granted, which contained a license condition requiring Wolf Creek to meet the SNUPPS FSAR through Revision 17, site addendum through Revision 15, and as approved in the SER through Supplement 5. Since initial licensing, WCNOC has made no changes to the original licensing bases or the license condition that would impact the following argument.

**Wolf Creek Generating Station Licensing Basis with Respect to 10 CFR 50, Appendix R:**  
WCGS License Condition 2.C(5)(a) states, "The Operating Corporation shall maintain in effect all provisions of the approved fire protection program as described in the SNUPPS Final Safety Analysis Report for the facility through Revision 17, the Wolf Creek site addendum through

Revision 15, and as approved in the SER through Supplement 5, subject to provisions b & c below.”

The violation asserts that the licensee failed to meet the technical requirements of 10 CFR 50, Appendix R, as required by SER Section 9.5.1.7. WCNOC disagrees with this statement in four areas:

- 1) WCNOC is not required by law to meet 10 CFR 50, Appendix R.
- 2) The SER (NUREG-0881, “Safety Evaluation Report related to the operation of Wolf Creek Generating Station, Unit No. 1”) does not require WCNOC to meet the requirements of 10 CFR 50, Appendix R.
- 3) SERs do not contain requirements.
- 4) The exception to 10 CFR 50, Appendix R, Section III.G.2 was approved by the NRC as part of the original licensing basis for WCGS and has not been revised.

Section 9.5.1.7 of the WCGS SER does not require WCGS to meet the requirements of Appendix R. The SER states that Appendix R is not directly applicable to Wolf Creek, and that the requirements of Appendix R were used as guidelines in licensing plants after January 1, 1979. The SER states that the Operating License will contain a condition requiring compliance with commitments made by an applicant and agreed to by the staff after differences between the applicant’s program and the guidelines set forth in Appendix A to BTP 9.5-1 and Appendix R to 10 CFR 50 have been identified and evaluated.

Following is the text of WCGS SER Section 9.5.1.7, “Appendix R Statement”:

*On October 27, 1980, the Commission approved a rule concerning fire protection. Although this rule and its Appendix R are not directly applicable to Wolf Creek, the requirements set forth in Appendix R are being used as guidelines in licensing plants after January 1, 1979. On April 27, 1981, the Commission required that Operating Licenses issued after January 1, 1979, contain a condition requiring compliance with commitments made by an applicant and agreed to by the staff after differences between the applicant’s program and the guidelines set forth in Appendix A to BTP 9.5-1 and Appendix R to 10 CFR 50 have been identified and evaluated.*

*The applicant has provided in the FSAR an evaluation of how he meets Appendix R and identified any exceptions. The staff is continuing to review the information. The staff will condition the operating license to require the applicant to meet the technical requirements of Appendix R to 10 CFR 50, or provide equivalent protection.*

As a part of the initial licensing review, the NRC requested that Wolf Creek provide a comparison to 10 CFR 50 Appendix R and identify any exceptions. The comparison was documented in Appendix 9.5E of the Final Safety Analysis Report (FSAR). Therefore, although Appendix R to 10 CFR 50 is not directly applicable, Wolf Creek’s position with respect to Appendix R was established in Appendix 9.5E as part of the approved Fire Protection Program documented in the FSAR. Additionally, SER Section 9.5.1.7 states “...*The staff will condition the operating license to require the applicant to meet the technical requirements of Appendix R to 10 CFR 50, or provide equivalent protection.*” In fact, the final Section 2.C(5) license condition did not require Wolf Creek to meet the “technical requirements of Appendix R to 10 CFR 50,” but rather required Wolf Creek to maintain the approved program as described in the FSAR. NRC acceptance of the WCGS fire protection program was documented in subsequent

supplemental SERs. This further substantiates that WCGS commitments are as described in the comparison table, Appendix 9.5E of the FSAR, and that these commitments were accepted as either meeting Appendix R guidelines or providing equivalent protection. The FSAR is now maintained as the Updated Safety Analysis Report (USAR).

Discussion:

In general, the FSAR documents the method a licensee intends to use to satisfy various regulatory guidance and requirements. The FSAR was submitted to the NRC for review. The reviews were documented in Safety Evaluation Reports (SERs). As validated by the NRC in the mid 1990's, and documented in NRC endorsed NEI documents, the NRC's SER documents the NRC's review of the FSAR and provides insights of the approval for the license. However, the SER does not contain commitments or requirements. As stated in the NRC's "Practice and Procedures Digest," NUREG-0386, Section 6.25.1, NRC Enforcement Authority: "Only statutes, regulations, orders, and license conditions can impose requirements on applicants and licenses. Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-00-35, 52 NRC 364, 388 (2000), citing Curators of the University of Missouri, CLI-95-1, 41 NRC at 41, 98." SERs are not included in the limited list of documents that can impose requirements.

At the point where a license is granted, the licensee may then make changes in accordance with existing change regulation, primarily 10 CFR 50.59. In the case of fire protection, changes are then made to the information in the fire protection plan in accordance with a license condition.

For WCNOG, license condition 2.C(5)(a) reflects this position in that it directs WCNOG to maintain the fire protection provisions in the FSAR as approved by the SER and change them in accordance with License Condition 2.C(5)(b). WCNOG does not believe the license condition wording establishes the SER as requirements. No changes have been made to these statements in the FSAR since the initial license was granted.

Wolf Creek Generating Station Licensing Basis with Respect to the Definition of Diverse Means:

The SNUPPS (WCGS and Callaway) comparison to 10 CFR 50, Appendix R, Section III.G, as documented in the USAR, Appendix 9.5E, states in part:

*....Redundant trains of systems required to achieve and maintain hot standby are separated by 3-hour rated fire barriers, or the equivalent provided by III.G.2, or else a diverse means of providing the safe shutdown capability exists and is unaffected by the fire.*

This III.G comparison, which is part of Wolf Creek's original licensing basis, is a specific example where SNUPPS took exception to the requirements of Appendix R, Section III.G.2. The term "diverse means" was not specifically defined within the comparison or other licensee documents submitted for NRC review. WCNOG has not found documentation indicating that the NRC contested that exception or formally requested supplemental information from the licensee regarding the application of diverse means, nor was specific discussion provided in the SER.

Discussion:

Section 9.5.1.7 of the SER does not require WCGS to meet the requirements of Appendix R. It states that the requirements of Appendix R were used as guidelines in licensing plants after January 1, 1979. Wolf Creek's position with respect to Appendix R was established in Appendix 9.5E of the USAR, which compares the approved WCGS fire protection program to 10 CFR 50, Appendix R, and identifies any Wolf Creek exceptions thereto.

Wolf Creek Nuclear Operating Corporation (WCNOC) understands "diverse means" to be any reasonable means, in compliance with other license requirements, necessary to ensure the plant can be brought to safe shutdown conditions following a fire. For example, valve or breaker manipulations are considered reasonable since they are performed as part of normal operator duties. Repairs necessary to achieve hot standby conditions are not considered reasonable because they are not performed as part of normal operator duties and generally cannot be completed in a timely manner. WCNOC considers this interpretation of diverse means to be rational based on the plant design, which utilizes two redundant safety trains with no dedicated post fire safe shutdown systems, and the overall safe shutdown goal of ensuring that one post fire safe shutdown success path remains available and unaffected by the fire.

The NRC inspection team disagreed with WCNOC's interpretation of "diverse means," as the inspection team did not recognize the use of manual actions as meeting the technical requirements of Appendix R. Section III.G.2 of 10 CFR 50, Appendix R, describes three acceptable methods for protecting at least one safe shutdown train when redundant trains are located in the same fire area. The Section III.G.2 requirements are based on the combination of physical barriers, spacial separation, fire detection and automatic suppression systems.

Although "diverse means" is not specifically defined in this case, another NRC document provides insight. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Section 7.3, states in part, "...The diverse means may actuate the same protective function or different protective functions, and may be automatically or *manually* activated, consistent with the response time requirements of the function." (Emphasis added.) Therefore, in NUREG-0800 the use of manual actions as a diverse means is expressly accepted. Based on the precedence established by this document, WCNOC believes it is logical to assert that the licensing basis allowed the use of manual actions as diverse means.

WCNOC agrees with the NRC inspection team that manual actions/"diverse means" do not meet the technical requirements of Appendix R, Section III.G.2, which is why "diverse means" was identified as an exception to Appendix R in the comparison documented in Appendix 9.5E of the WCGS USAR. If "diverse means" met the technical requirements of Appendix R, there would have been no need to identify it as an exception. As stated in SER Section 9.5.1.7, differences between WCGS's fire protection program and 10 CFR 50, Appendix R were identified and evaluated, as documented in Appendix 9.5E of the WCGS USAR, which was reviewed by the NRC and included as a license condition. This allows WCGS to use "diverse means" in lieu of meeting the technical requirements of Appendix R, Section III.G.2.

It should be noted that in the same NRC Inspection Report 05000482/2005008, Section 1.2.b. Findings, the *Analysis* section states that the NRC inspection team found that the manual operator actions were reasonable, and could be performed within the analyzed time limits.

Potential operator mitigating actions for a fire outside the Control Room are evaluated for feasibility considering the criteria of NRC Inspection Module 71111.05T. This feasibility review is documented in WCNOG design document E-1F9900, *Post-Fire Safe Shutdown Manual Actions*, with actions procedurally identified in WCNOG procedure OFN KC-016, *Fire Response*. If analysis determines that the feasibility criteria are not satisfied, the condition is entered into the corrective action process in order to address reportability and the potential need for field modification.

Another point of reference applicable to WCGS concerning Appendix R, Section III.G.2 and the use of operator manual actions is contained on page 5 of 6 of the Enclosure to RIS 2005-30, which states in part as follows:

*Plants that were licensed after January 1, 1979, use [sic] operator manual actions without NRC approval may or may not be in compliance with applicable fire protection requirements. Compliance depends on the specific licensing commitments (usually specified in license conditions for these licensees), the change control process, and how the change was justified and analyzed to demonstrate that the operator manual actions are feasible and reliable and thus do not adversely affect the ability to achieve or maintain safe shutdown.*

Considering that the 10 CFR 50, Appendix R comparison (FSAR Appendix 9.5E) was reviewed by the NRC and included as a license condition, coupled with the reasonable interpretation of "diverse means," it is WCNOG's position that feasible post fire safe shutdown mitigating operator manual actions are within the bounds of the license condition for the WCGS approved fire protection program.

As an additional note, this same issue of Wolf Creek's taking credit for manual actions for fires in III.G.2 areas was also discussed during the 2002 Triennial Fire Protection Inspection. The inspection team did not pursue this issue any farther after they were presented with Wolf Creek's Licensing Basis and were shown the Section of USAR Appendix 9.5E that contained the III.G.2 comparison that takes credit for having a "diverse means of providing the safe shutdown capability."

### **Conclusion**

Beyond the belief that SERs do not contain requirements, Section 9.5.1.7 of the SER does not require WCGS to meet the requirements in Appendix R, but rather states that the requirements of Appendix R were used as guidelines in licensing plants after January 1, 1979. Wolf Creek's position with respect to Appendix R was established in Appendix 9.5E of the USAR, which compares the approved WCGS fire protection program to 10 CFR 50, Appendix R, and identifies any Wolf Creek exceptions thereto.

WCNOG's approved licensing basis, as described in USAR Appendix 9.5E, contains an exception to the requirements of Appendix R, Section III.G.2, allowing for a diverse means of providing the safe shutdown capability for redundant trains of systems required to achieve and maintain hot standby, outside of those methods stated in Section III.G.2. Therefore, the basis for this violation, "failing to meet the technical requirements of 10 CFR 50, Appendix R, as

required by SER Section 9.5.1.7," is not valid, since the approved licensing basis allows for the exception to the technical requirements of Appendix R.

WCNOC agrees with the NRC that manual actions (diverse means) do not meet the technical requirements of Appendix R, III.G.2, which is why the concept of "diverse means" was identified as an exception to Appendix R in the comparison documented in Appendix 9.5E of the WCGS USAR. If "diverse means" met the technical requirements of Appendix R, there would have been no need to identify it as an exception. As stated in SER Section 9.5.1.7, differences between WCGS's fire protection program and 10 CFR 50, Appendix R were identified and evaluated, as documented in Appendix 9.5E of the WCGS FSAR, which was reviewed by the NRC and included as a license condition. This allows WCGS to use "diverse means" in lieu of meeting the technical requirements of Appendix R, Section III.G.2.

Therefore, WCGS denies the violation.