WOLF CREEK
NUCLEAR OPERATING CORPORATION

Matthew W. Sunseri
Vice President Operations and Plant Manager

September 3, 2009

WO 09-0022

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

Subject: Docket No. 50-482: Request for Approval of Changes to the Technical Specification 3.8.1, "AC Sources – Operating" Bases

Gentlemen,

Pursuant to 10 CFR 50.90, Wolf Creek Nuclear Operating Corporation (WCNOC) hereby requests an amendment to Renewed Facility Operating License No. NPF-42 for the Wolf Creek Generating Station (WCGS). This amendment request proposes to revise the Technical Specification (TS) Bases consistent with the guidance provided in Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation (Generic Letter 93-05)." WCNOC is proposing to revise the TS Bases to indicate that an inoperable support system that results in the inoperability of the diesel generator is not considered a common cause failure or would not require the performance of Surveillance Requirement 3.8.1.2.

The proposed change is based on the NRC Staff (TS Branch) position provided through the NRC Resident Inspector for WCGS. Although the change is being made to the TS Bases, application of the guidance in Generic Letter 93-05 potentially changes the intent of the specification.

Attachment I provides the evaluation of the proposed TS Bases changes as they apply to TS 3.8.1. Attachment II provides the existing TS Bases pages marked-up to show the proposed changes. Final TS Bases changes will be implemented pursuant to TS 5.5.14, "Technical Specification (TS) Bases Control Program," at the time the amendment is implemented. Attachment III provides a list of regulatory commitments made by WCNOC in this submittal.

It has been determined that this amendment application does not involve a significant hazard consideration as determined per 10 CFR 50.92. The amendment application was reviewed by the WCNOC Plant Safety Review Committee. In accordance with 10 CFR 50.91, a copy of this application is being provided to the designated Kansas State official.

A001
NRR

WCNOC requests approval of this proposed amendment by December 17, 2009 to minimize the potential for unnessary testing of the diesel generator. Once approved, the amendment will be implemented within 30 days of receipt. Consistent with the requirements in 10 CFR 50.71(e), implementation shall include revision to the Updated Safety Analysis Report (USAR) to include the effects of changes made in the facility or procedures described in the USAR and safety analyses and evaluations performed in support of the license amendment.

If you have any questions concerning this matter, please contact me at (620) 364-4008, or Mr. Richard D. Flannigan, Manager Regulatory Affairs at (620) 364-4117.

Sincerely,

M W Sunseri

Matthew W. Sunseri

MWS/rlt

Attachments I - Evaluation of Proposed Change
II - Markup of Technical Specification Bases Pages
III - List of Regulatory Commitments

cc: E. E. Collins (NRC), w/a
T. A. Conley (KDHE), w/a
V. G. Gaddy (NRC), w/a
B. K. Singal (NRC), w/a
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Matthew W. Sunseri, of lawful age, being first duly sworn upon oath says that he is Vice President Operations and Plant Manager of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By M W Sunseri
Matthew W. Sunseri
Vice President Operations and Plant Manager

SUBSCRIBED and sworn to before me this 3rd day of September, 2009.

NOTARY PUBLIC OFFICIAL SEAL STATE OF KANSAS
RHONDA L. TIEMEYER
MY COMMISSION EXPIRES
January 11, 2010

Rhonda L. Tiemeyer
Notary Public

Expiration Date January 11, 2010

EVALUATION OF PROPOSED CHANGE

Subject: Request for Approval of Changes to the Technical Specification 3.8.1, "AC Sources – Operating" Bases

1. SUMMARY DESCRIPTION

2. DETAILED DESCRIPTION

3. TECHNICAL EVALUATION

4. REGULATORY EVALUATION

   4.1 Applicable Regulatory Requirements/Criteria

   4.2 Precedent

   4.3 Significant Hazards Consideration

   4.4 Conclusions

5. ENVIRONMENTAL CONSIDERATION

6. REFERENCES

1. SUMMARY DESCRIPTION

In accordance with 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Wolf Creek Nuclear Operating Corporation (WCNOC) requests a change to Wolf Creek Generating Station (WCGS) Technical Specification (TS) Bases.

This amendment request proposes to revise the Technical Specification (TS) Bases consistent with the guidance provided in Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation (Generic Letter 93-05)." WCNOC is proposing to revise the TS Bases to indicate that an inoperable support system that results in the inoperability of the diesel generator is not considered a common cause failure or would not require the performance of Surveillance Requirement 3.8.1.2.

2. DETAILED DESCRIPTION

WCNOC is proposing to add the below sentence to the TS 3.8.1, Required Action B.3.1 and B.3.2 Bases.

> If the DG was declared inoperable for preplanned preventative maintenance, testing, or maintenance to correct a condition which, if left uncorrected, would not affect the OPERABILITY of the DG, or for an inoperable support system, or for an independently testable component, there is not a common cause failure.

Proposed changes to the TS 3.8.1, Required Action B.3.1 and B.3.2 Bases are identified in bold/italics font below:

> <u>B.3.1 and B.3.2</u>
>
> Required Action B.3.1 provides an allowance to avoid unnecessary testing of OPERABLE DG. ***If the DG was declared inoperable for preplanned preventative maintenance, testing, or maintenance to correct a condition which, if left uncorrected, would not affect the OPERABILITY of the DG, or for an inoperable support system, or for an independently testable component, there is not a common cause failure.*** If it can be determined that the cause of the inoperable DG does not exist on the OPERABLE DG, SR 3.8.1.2 does not have to be performed. If the cause of inoperability exists on the other DG, it would be declared inoperable upon discovery and Condition E of LCO 3.8.1 would be entered. Once the failure is repaired, the common cause failure no longer exists, and Required Action B.3.1 is satisfied. If the cause of the initial inoperable DG cannot be confirmed not to exist on the remaining DG, performance of SR 3.8.1.2 suffices to provide assurance of continued OPERABILITY of that DG. Required Action B.3.2 is modified by a Note stating that it is satisfied by the automatic start and sequence loading of the DG. The Note indicates that an additional start of the DG for test purposes only, is not required if the DG has

automatically started and loaded following a loss of the offsite power source to its respective bus (Ref. 18).

In the event the inoperable DG is restored to OPERABLE status prior to completing either B.3.1 or B.3.2, the plant corrective action program will continue to evaluate the common cause possibility. This continued evaluation, however, is no longer under the 24 hour constraint imposed while in Condition B.

According to Generic Letter 84-15 (Ref. 7), 24 hours is reasonable to confirm that the OPERABLE DG is not affected by the same problem as the inoperable DG.

3. TECHNICAL EVALUATION

On June 30, 2009, a through wall leak on Essential Service Water (ESW) System piping just upstream of valve EF HV-038 was identified by shift crew personnel during building watch rounds. The "B" ESW train was declared inoperable based on Technical Requirement TR 3.4.17, "Structural Integrity," and Condition A of LCO 3.7.8, "Essential Service Water (ESW) System," was entered. Required Action A.1 of LCO 3.7.8 has a Note to enter the applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources – Operating," for a diesel generator (DG) made inoperable by the ESW System. This resulted in the "B" DG being declared inoperable and entering Condition B of LCO 3.8.1. Required Action B.3.1 for TS 3.8.1 is to determine if the OPERABLE DG is inoperable due to a common cause failure. Control room personnel utilized procedure SYS KJ-200, "Inoperable Emergency Diesel," when the DG was declared inoperable and determined that a common cause failure did not exist. Step 6.1.5 of SYS KJ-200 specifies to document the evaluation of common cause on the procedure cover sheet. The documented evaluation indicated that "B" DG inoperability was not common cause due to the "B" train ESW being inoperable. The common cause determination was questioned by the Nuclear Regulatory Commission (NRC) Resident Inspector for WCGS.

WCNOC's initial review of the event determined that the requirements of TS 3.8.1 Required Action B.3.1 were met when it was determined that a common cause failure did not exist on the DG itself due to an inoperable support system. This information was provided to the Resident Inspector and NRC Project Manager on July 14, 2009. Subsequently, on July 28, 2009, during the weekly Resident Inspector issues meeting, WCNOC was informed that the NRC Staff (Technical Specification Branch) provided a position through the NRC Resident Inspector that guidance in GL 93-05 could not be utilized for determining common cause failure since the WCGS TSs did not specifically call for the use of the conditions cited in the GL.

<u>License Amendment No. 101</u>

On September 15, 1995, WCNOC submitted a license amendment request proposing to revise TS 3/4.8.1, "Electrical Power Systems – A.C. Sources," in part, based on the guidance in Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation (Generic Letter 93-05)," and Generic Letter 94-01, "Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators (Generic Letter 94-01)."

Specifically, Action b. of TS 3.8.1.1 was proposed to be revised as follows:

> b. With one diesel generator of the above required A.C. eletrical power sources inoperable, demonstrate the OPERABILITY of the offsite A.C. sources by performing Specification 4.8.1.1.1 within 1 hour and at least once per 8 hours thereafter. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Specification 4.8.1.1.2a.4 within 24 hours~~**~~***, unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated, or if the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, preplanned preventative maintenance or testing, or maintenance to correct a condition which, if left uncorrected, would not affect the OPERABILITY of the diesel generator;*** restore the inoperable diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
>
> ---
>
> ~~**This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABLE status unless the diesel was declared inoperable to do preplanned preventative maintenance, testing, or maintenance to correct a condition which, if left uncorrected, would not affect the operability of the diesel generator.~~

The following wording was proposed to be added to the TS Bases:

> Technical Specification 3.8.1.1. Action b and c. require, in part, the demonstration of the operability of the remaining operable emergency diesel generator by performing Technical Specification 4.8.1 .1.2a.4. This test is required to be completed regardless of when the inoperable emergency diesel generator is restored to operable status unless the emergency diesel generator was declared inoperable to do preplanned preventative maintenance, testing, or maintenance to correct a condition which, if left uncorrected, would not affect the operability of the emergency diesel generator. The requirement to test the remaining operable emergency diesel generator when one emergency diesel generator is inoperable is limited to those situations where the cause for inoperability can not be conclusively demonstrated in order to preclude the potential for common mode failures. The test is not required to be accomplished if the emergency diesel generator was declared inoperable due to an inoperable support system or an independently testable component. When such a test is required, it is required to be performed within 8 hours of having determined that the emergency diesel generator is inoperable.

The above changes were proposed based on the guidance in Generic Letter 93-05. Generic Letter 93-05 provided guidance for TS improvements to reduce surveillance requirements for testing based on the results reported in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements." Specifically item 10.1 in Enclosure 1 of the generic letter recommended changes to the emergency diesel generator surviellance requirements. Recommendation (1) stated: "When a EDG itself is inoperable (not including a support system or independently testable component), the other EDG(s) should be tested only once (not every 8 hours) and within 8 hours unless the absence of any potential common mode failure can be

demonstrated." The generic letter does not provide any guidance regarding how the common cause determination is to be performed. A review of NUREG-1366 did not identify any guidance regarding how the common cause determination is to be performed. Note that in this case, WCNOC maintained the 24 hours based on NUREG-1431, "Standard Technical Specifications – Westinghouse Plants."

This specific change was approved in Amendment No. 101 on August 9, 1996.

Conversion to Improved TSs

WCNOC letter ET 97-0050, dated May 15, 1997, provided the WCGS Technical Specification Conversion Application. Attachment 14 to the application was current technical specifications (CTS) Section 3/4.8/ improved technical specifications (ITS) Section 3.8. Attachment 14 to ET 97-0050 provided the markups of Action b. and the associated description of changes (DOC). A review of DOC 1-05-LS-6 indicates that the change was considered a less restrictive change and the DOC further indicates that the change was based on the guidance in Generic Letter 84-15 and Generic Letter 93-05. While the expanded wording that was in the CTS was not incorporated into the ITS or ITS Bases, the justification indicates that the intent of the ITS wording is based on the guidance in Generic Letter 84-15 and Generic Letter 93-05 (an inoperable support system that results in the inoperability of the DG is not considered a common cause failure or would not require the performance of SR 3.8.1.2).

The Standard Technical Specifications Bases does not include any discussion consistent with the guidance in Generic Letter 93-05. A review of the available documentation associated with the development of the Standard Technical Specification did not identify any specifics regarding the information in Generic Letter 93-05 other than the fact that Required Action B.3 allows either the performance of DG start (SR 3.8.1.2) or a determination that the cause of the inoperable DG does not exist on the OPERABLE DG. Specific information that was incorporated into the TS Bases as a result of Amendment No. 101 was not incorporated into the expanded TS Bases developed during the conversion to the improved Standard Technical Specifications so as to more closely adhere to standardization.

Discussion

The Required Action B.3.1 and B.3.2 Bases state, in part:

> If it can be determined that the cause of the inoperable DG does not exist on the OPERABLE DG, SR 3.8.1.2 does not have to be performed.

This Bases wording indicates that if the cause of the inoperable DG is the inoperability of a support system (i.e., one train of the support system) and the opposite train of the support system is OPERABLE, then the cause does not exist on the OPERABLE DG. The Bases wording and the TS wording does not indicate that the determination of the cause of the inoperable support system has to be extended to the opposite train of the support system.

The proposed change to the TS Bases, based on the NRC Staff position, potentially changes the intent of the specification. Therefore, WCNOC is proposing changes to the TS Bases in accordance with 10 CFR 50.90 to incorporate guidance preserved in GL 93-05, previously approved in Amendment No. 101 and endorsed in the ITS conversion application (ET 97-0050).

WCNOC is not proposing changes to TS 3.8.1 as this level of detail should be specified in the TS Bases (consistent with the Writer's Guide for Plant-Specific Improved Technical Specifications and SECY-93-067) and consistency with TS LCO 3.8.1 of NUREG-1431, Rev. 3.1.

Generic Letter 93-05 provided line-item technical specification improvements to reduce surveillance requirements testing during power operation based on the recommendations in NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements." One of the recommendations from NUREG-1366 is that when a DG itself is inoperable (not including a support system or independently testable component), the other DG(s) should be tested only once (not every 8 hours) and within 8 hours unless the absence of any potential common-mode failure can be demonstrated. As such, the proposed changes to the TS Bases provides clarification regarding the performance of common cause determinations, consistent with the guidance in Generic Letter 93-05 and recommended in NUREG-1366. Providing this clarification in the TS Bases is consistent with past practices that were previously approved by the NRC and are believed to be inherent, but not clearly stated, in the current TS and TS Bases.

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," Criterion 17, *Electric power systems,* requires onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The safety function for each system (assuming the other system is not functioning) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

4.2 Significant Hazards Consideration

WCNOC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, Issuance of Amendment:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change to the TS Bases does not involve a change in the operational limits or physical design of the emergency power system. Diesel generator (DG) OPERABILITY and reliability will continue to be assured while minimizing the potential number of required DG starts.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?

Response: No

The proposed change to the TS Bases does not involve a change in the operational limits or physical design of the emergency power system. The performance capability of the DG will not be affected. Diesel generator availability will be improved by the potential for the reduced number of starts on the DG. There is no impact on any accident analysis.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

The proposed change to the TS Bases does not involve a change in the operational limits or physical design of the emergency power system. The performance capability of the DG will not be affected. Diesel generator availability will be improved by the potential for the reduced number of starts on the DG. No margin of safety is reduced.

4.3 Conclusions

This amendment request proposes to revise the TS Bases consistent with the guidance provided in Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation (Generic Letter 93-05)," that an inoperable support system that results in the inoperability of the diesel generator is not considered a common cause failure or would not require the performance of Surveillance Requirement 3.8.1.2. Based on the considerations discussed above, 1) there is a reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, 2) such activities will be conducted in compliance with the Commission's regulations, and 3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5. ENVIRONMENTAL CONSIDERATION

WCNOC has evaluated the proposed change and has determined that the change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amount of effluent that my be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed changes

meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

6. REFERENCES

1. Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation (Generic Letter 93-05)," September 27, 1993.

2. Letter ET 95-0099, "Revision to Technical Specification 3/4.8.1, "Electrical Power Systems – A.C. Sources," September 15, 1999.

3. License Amendment No. 101, "Wolf Creek Generating Station – Amendment No. 101 to Facility Operating License No. NPF-42 (TAC NO. M89995)," August 9, 1996.

4. License Amendment No. 123, "Conversion to Improved Technical Specifications for Wolf Creek Generating Station – Amendment No. 123 to Facility Operating License No. NPF-42 (TAC NO. M98738)," March 31, 1999.

5. NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," December 1992.

6. Letter ET 97-0050, "Technical Specification Conversion Application," May 15, 1997.

Markup of Technical Specification Bases Pages

BASES

ACTIONS

B.2 (continued)

The Completion Time for Required Action B.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This Completion Time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this Required Action, the Completion Time only begins on discovery that both:

a. An inoperable DG exists; and

b. A required feature on the other train (Train A or Train B) is inoperable and not in the safeguards position.

If at any time during the existence of this Condition (one DG inoperable) a required feature subsequently becomes inoperable, this Completion Time would begin to be tracked.

Discovering one required DG inoperable coincident with one or more inoperable required support or supported features, or both, that are associated with the OPERABLE DG, results in starting the Completion Time for the Required Action. Four hours from the discovery of these events existing concurrently is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

In this Condition, the remaining OPERABLE DG and offsite circuits are adequate to supply electrical power to the onsite Class 1E Distribution System. Thus, on a component basis, single failure protection for the required feature's function may have been lost; however, function has not been lost. The 4 hour Completion Time takes into account the OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 4 hour Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

B.3.1 and B.3.2

Required Action B.3.1 provides an allowance to avoid unnecessary testing of OPERABLE DG. If it can be determined that the cause of the inoperable DG does not exist on the OPERABLE DG, SR 3.8.1.2 does not have to be performed. If the cause of inoperability exists on the other DG, it would be declared inoperable upon discovery and Condition F of LCO 3.8.1 would be entered. Once the failure is repaired, the common cause failure no longer exists, and Required Action B.3.1 is satisfied. If the cause of the initial inoperable DG cannot be confirmed not to exist on

If the DG was declared inoperable for preplanned preventative maintenance, testing, or maintenance to correct a condition which, if left uncorrected, would not affect the OPERABILITY of the DG, or for an inoperable support system, or for an independently testable component, there is not a common cause failure.

— No changes this page. Provided for information only. —

BASES

ACTIONS

B.3.1 and B.3.2 (continued)

the remaining DG, performance of SR 3.8.1.2 suffices to provide assurance of continued OPERABILITY of that DG. Required Action B.3.2 is modified by a Note stating that it is satisfied by the automatic start and sequence loading of the DG. The Note indicates that an additional start of the DG for test purposes only, is not required if the DG has automatically started and loaded following a loss of the offsite power source to its respective bus (Ref. 18).

In the event the inoperable DG is restored to OPERABLE status prior to completing either B.3.1 or B.3.2, the plant corrective action program will continue to evaluate the common cause possibility. This continued evaluation, however, is no longer under the 24 hour constraint imposed while in Condition B.

According to Generic Letter 84-15 (Ref. 7), 24 hours is reasonable to confirm that the OPERABLE DG is not affected by the same problem as the inoperable DG.

B.4.1, B.4.2.1, and B.4.2.2

In Condition B, the remaining OPERABLE DG and offsite circuits are adequate to supply electrical power to the onsite Class 1E Distribution System. With a DG inoperable, the inoperable DG must be restored to OPERABLE status within the applicable, specified Completion Time.

The Completion Time of 72 hours for Required Action B.4.1 applies when a DG is discovered or determined to be inoperable, such as due to a component or test failure, and requires time to effect repairs, or it may apply when a DG is rendered inoperable for the performance of maintenance during applicable MODES. The 72-hour Completion Time takes into account the capacity and capability of the remaining AC sources, reasonable time for repairs, and the low probability of a DBA during this period.

The second Completion Time for Required Action B.4.1 also establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failing to meet the LCO. If Condition B is entered while, for instance, an offsite circuit is inoperable, the LCO may already have been not met for up to 72 hours. If the offsite circuit is restored to OPERABLE status within the required 72 hours, this could lead to a total of 144 hours, since initial failure to meet the LCO, to restore the compliance with the LCO (i.e., restore the DG). At this time, an offsite circuit could again become inoperable and an additional 72 hours allowed prior to complete

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by WCNOC in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Mr. Richard Flannigan at (620) 364-4117.

REGULATORY COMMITMENT	DUE DATE/EVENT
Once approved, the amendment will be implemented within 30 days of receipt.	Within 30 days of receipt
Consistent with the requirements in 10 CFR 50.71(e), implementation shall include revision to the Updated Safety Analysis Report (USAR) to include the effects of changes made in the facility or procedures described in the USAR and safety analyses and evaluations performed in support of the license amendment.	On a frequency consistent with 10 CFR 50.71(e)