



February 25, 2019

Stephen L. Smith
Vice President Engineering

ET 19-0003

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

Subject: Docket No. 50-482: License Amendment Request to Revise
Technical Specification 3.6.3 and Surveillance Requirement 3.6.3.1
to remove use of a blind flange

To Whom It May Concern:

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Wolf Creek Nuclear Operating Corporation (WCNOC) hereby requests an amendment to Renewed Facility Operating License Number NPF-42 for the Wolf Creek Generating Station (WCGS). The license amendment request (LAR) proposes to revise Technical Specification (TS) 3.6.3.

The proposed amendment would modify TS 3.6.3 "Containment Isolation Valves," Condition D, to remove use of a blind flange for Required Action D.1. In addition, a change to Surveillance Requirement (SR) 3.6.3.1 is proposed to remove use of a blind flange.

It has been determined that this amendment application does not involve a significant hazard consideration as determined per 10 CFR 50.92, "Issuance of amendment." Pursuant to 10 CFR 51.22(b), "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of this amendment. The amendment application was reviewed by the WCNOC Plant Safety Review Committee.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," a copy of this amendment application is being provided to the designated Kansas State official.

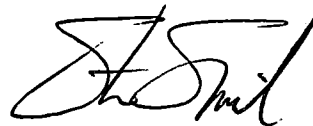
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Attachment I provides an Evaluation of Proposed Changes. Attachment II provides the Proposed Technical Specification Changes (Mark-Up) Pages. Attachment III provides the Retyped Technical Specification Pages. Attachment IV provides the Proposed Technical Specification Bases Changes (Mark-Up) (for information only). Final TS Bases changes will be implemented pursuant to TS 5.5.14, "Technical Specifications (TS) Bases Control Program," at the time the amendment is implemented.

WCNOC requests approval of this proposed license amendment by March 5, 2020. The changes proposed are not required to address an immediate safety concern. It is anticipated that the license amendment, as approved, will be effective upon issuance, to be implemented within 90 days from the date of issuance.

There are no regulatory commitments contained in this submittal. If you have any questions concerning this matter, please contact me at (620) 364-4093, or Ron Benham at (620) 364-4204.

Sincerely,



Stephen L. Smith

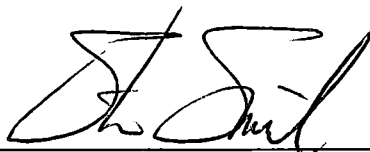
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Attachments: I - Evaluation of Proposed Changes
II - Proposed Technical Specification Changes (Mark-Up) Pages
III - Retyped Technical Specification Pages
IV - Proposed Technical Specification Bases Changes (Mark-Up) (for information only)

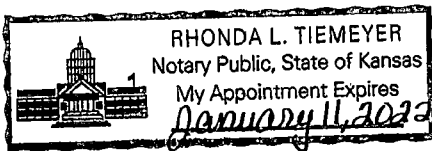
cc: S. A. Morris (NRC), w/a
B. K. Singal (NRC), w/a
K. S. Steves (KDHE), w/a
N. H. Taylor (NRC), w/a
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Stephen L. Smith, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering 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 
Stephen L. Smith
Vice President Engineering

SUBSCRIBED and sworn to before me this 25th day of February, 2019.



Rhonda L. Tiemeyer
Notary Public

Expiration Date January 11, 2022

ATTACHMENT I
EVALUATION OF PROPOSED CHANGES

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request to Revise Technical Specifications TS 3.6.3
"Containment Isolation Valves" to remove use of a blind flange for Required Action D.1

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 No Significant Hazards Consideration Determination
- 5.0 ENVIRONMENTAL CONSIDERATION

EVALUATION OF PROPOSED CHANGES

1.0 SUMMARY DESCRIPTION

This evaluation supports a request to amend Renewed Facility Operating License Number NPF-42 for the Wolf Creek Generating Station (WCGS).

The proposed change revises Technical Specification (TS) 3.6.3, "Containment Isolation Valves" to remove use of a blind flange to meet Limiting Condition for Operation (LCO) 3.6.3, Required Action D.1. In addition, a change to Surveillance Requirement (SR) 3.6.3.1 is proposed to remove use of a blind flange.

2.0 DETAILED DESCRIPTION

Proposed Changes

TS 3.6.3, "Containment Isolation Valves" Required Action D.1 currently states, in part:

Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.

TS 3.6.3, Required Action D.1 is revised to state, in part:

Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve or closed manual valve.

SR 3.6.3.1 currently states, in part:

Verify each containment shutdown purge valve is sealed closed or closed and blind flange installed except for one purge valve in a penetration flow path while in Condition D of this LCO.

SR 3.6.3.1 is revised to state, in part:

Verify each containment shutdown purge valve is sealed closed except for one purge valve in a penetration flow path while in Condition D of this LCO.

3.0 TECHNICAL EVALUATION

The Containment Purge and Exhaust System operates to supply outside air into the containment for ventilation and cooling or heating needed for prolonged containment access following a shutdown and during refueling. The system may also be used to reduce the concentration of noble gases within containment prior to and during personnel access. The supply and exhaust lines each contain two isolation valves. Because of their large size, the 36 inch containment purge supply and exhaust valves are not qualified for automatic closure from their open position under DBA conditions. The safety analyses assume that the 36 inch shutdown purge valves are closed at event initiation. Therefore, the 36 inch containment purge supply and exhaust isolation valves are normally sealed closed in MODES 1, 2, 3, and 4 to

ensure the containment boundary is maintained. Sealed closed means the valves are closed and deactivated.

TS LCO 3.6.3 requires that while the plant is in MODES 1, 2, 3, and 4, each containment isolation valve shall be OPERABLE. When one or more containment penetration flow paths contain one or more containment purge isolation valves whose leakage is not within allowable limits, Condition D is entered. Required Action D.1 is to isolate the affected penetration flow path by use of at least one closed and de-activated valve, closed manual valve, or blind flange. Action D.1 has a Completion Time of 24 hours.

The design of the Containment Purge and Exhaust System includes spectacle blind flanges installed on both supply and exhaust lines penetrating containment. However, these are installed beyond the seismic category I class break on these lines and are non-safety related. They are normally used for valve leakage testing during refueling outages. Because they are not safety-related, they can not be credited for containment isolation. Therefore, there is no practical way to use a blind flange to isolate the containment penetrations associated with the Containment Purge and Exhaust System.

This license amendment request is proposing to remove the use of a blind flange as a way to satisfy Required Action D.1 for containment purge isolation valves.

4.0 REGULATORY EVALUATION

4.1 No Significant Hazards Consideration Determination

Wolf Creek Nuclear Operating Corporation (WCNOC) requests adoption of License Amendment Request to revise Technical Specification (TS) 3.6.3 "Containment Isolation Valves" to remove use of a blind flange to meet Limiting Condition for Operation (LCO) 3.6.3, Required Action D.1, and Surveillance Requirement (SR) 3.6.3.1. WCNOC has evaluated whether or not a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The proposed changes to TS LCO 3.6.3 and SR 3.6.3.1 have no effect on the requirement for systems to be OPERABLE and have no effect on the application of TS actions. Since the proposed change does not significantly affect system OPERABILITY the proposed change will have no significant effect on the initiating events for accidents previously evaluated and will have no significant effect on the ability of the systems to mitigate accidents previously evaluated.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed change to update the TS does not affect the design or function of any plant systems. The proposed change does not change the Operability requirements for plant systems or the actions taken when plant systems are not OPERABLE.

Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed change updates TS LCO 3.6.3, Required Action D.1 to remove use of a blind flange. It does not result in changes in plant operation. The proposed change to SR 3.6.3.1 removes the use of a blind flange. As a result, plant safety is either improved or unaffected.

Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety.

Based on the above, WCNOG concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

ATTACHMENT II

**PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)
PAGES**

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued)	D.3 Perform SR 3.6.3.6 or SR 3.6.3.7 for the resilient seal purge valves closed to comply with Required Action D.1.	Once per 92 days
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours
	<u>AND</u> E.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.3.1 Verify each containment shutdown purge valve is sealed closed -or closed and blind flange installed except for one purge valve in a penetration flow path while in Condition D of this LCO.	Once per 31 days for isolation devices outside containment <u>AND</u> Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment

(continued)

ATTACHMENT III

RETYPE TECHNICAL SPECIFICATION PAGES

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued)	D.3 Perform SR 3.6.3.6 or SR 3.6.3.7 for the resilient seal purge valves closed to comply with Required Action D.1.	Once per 92 days
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours
	<u>AND</u> E.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.3.1 Verify each containment shutdown purge valve is sealed closed except for one purge valve in a penetration flow path while in Condition D of this LCO.	Once per 31 days for isolation devices outside containment <u>AND</u> Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment

(continued)

ATTACHMENT IV

**PROPOSED TECHNICAL SPECIFICATION BASES CHANGES
(MARK-UP) (FOR INFORMATION ONLY)**

BASES

BACKGROUND
(continued)

within containment prior to and during personnel access. The supply and exhaust lines each contain two isolation valves. Because of their large size, the 36 inch containment purge supply and exhaust valves are not qualified for automatic closure from their open position under DBA conditions. Therefore, the 36 inch containment purge supply and exhaust isolation valves are normally ~~maintained closed and blind flange installed~~ ~~or~~ sealed closed in MODES 1, 2, 3, and 4 to ensure the containment boundary is maintained.

Mini-Purge System (18 inch purge valves)

The Mini-purge System operates to:

- a. Reduce the concentration of noble gases within containment prior to and during personnel access, and
- b. Equalize containment internal and external pressures.

Since the 18 inch valves used in the Mini-purge System are designed to meet the requirements for automatic containment isolation valves, these valves may be opened as needed, for a limited time as specified in procedures, in MODES 1, 2, 3, and 4.

APPLICABLE
SAFETY ANALYSES

The containment isolation valve LCO was derived from the assumptions related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during major accidents. As part of the containment boundary, containment isolation valve OPERABILITY supports leak tightness of the containment. Therefore, the safety analyses of any event requiring isolation of containment is applicable to this LCO.

The DBAs that result in a release of radioactive material within containment are a loss of coolant accident (LOCA) and a rod ejection accident (Ref. 1). In the analyses for each of these accidents, it is assumed that containment isolation valves are either closed or function to close within the required isolation time following event initiation. This ensures that potential paths to the environment through containment isolation valves (including containment purge valves) are minimized. The safety analyses assume that the 36 inch shutdown purge valves are closed at event initiation.

The DBA analysis assumes that, within 60 seconds after the accident, isolation of the containment is complete and leakage terminated except for the design leakage rate, L_a . The containment isolation total response time of 60 seconds includes signal delay, diesel generator startup (for loss of offsite power), and containment isolation valve stroke times.

BASES

APPLICABLE
SAFETY ANALYSES
(continued)

The LOCA offsite dose analysis assumes leakage from the containment at a maximum leak rate of 0.20 percent of the containment volume per day for the first 24 hours, and at 0.10 percent of the containment volume per day for the duration of the accident.

The single failure criterion required to be imposed in the conduct of plant safety analyses was considered in the original design of the 18 inch containment mini-purge valves. Two valves in series on each purge line provide assurance that both the supply and exhaust lines could be isolated even if a single failure occurred. The inboard and outboard isolation valves on each line are provided with independent electrical power sources to solenoids that open the pneumatically operated spring closed actuators. The actuators fail closed on the loss of power or air. This arrangement was designed to preclude common mode failures from disabling both valves on a purge line.

The 36 inch purge valves may be unable to close against the buildup of pressure following a LOCA. Therefore, each of the purge valves is required to remain sealed closed ~~or closed and blind flange installed~~ during MODES 1, 2, 3, and 4. The Containment Shutdown Purge System valve design precludes a single failure from compromising the containment boundary as long as the system is operated in accordance with the subject LCO.

The containment isolation valves satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

Containment isolation valves form a part of the containment boundary. The containment isolation valves' safety function is related to minimizing the loss of reactor coolant inventory and establishing the containment boundary during a DBA.

The automatic power operated isolation valves are required to have isolation times within limits and to actuate on an automatic isolation signal. The 36 inch containment purge supply and exhaust valves must be maintained sealed closed ~~or closed and blind flange installed~~. The valves covered by this LCO are listed along with their associated stroke times in the USAR (Ref. 2).

The normally closed containment isolation valves are considered OPERABLE when manual valves are closed, automatic valves are deactivated and secured in their closed position, blind flanges are in place, and closed systems are intact. These passive isolation valves/devices are those listed in Reference 2.

BASESACTIONS
(continued)C.1 and C.2

In the event one containment isolation valve in two or more separate penetration flow paths is inoperable, except for purge valve leakage not within limit, all but one of the affected penetration flow path(s) must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic containment isolation valve, a closed manual valve, a blind flange, and a check valve with flow through the valve secured. For a penetration flow path isolated in accordance with C.1, the device used to isolate the penetration should be the closest available one to containment.

Required Action C.1 must be completed within 4 hours. For the penetration flow paths isolated in accordance with Required Action C.1, the affected penetration(s) must be verified to be isolated on a periodic basis per Required Action A.2, which remains in effect. This periodic verification is necessary to assure that the penetrations requiring isolation following an accident are isolated. The 4 hour Completion Time is reasonable, considering the time required to isolate the penetration and the relative importance of supporting Containment OPERABILITY during MODES 1, 2, 3, and 4.

This Condition is applicable when multiple containment isolation valves in separate flow paths are inoperable. For subsequent containment isolation valve inoperabilities, the Required Action and Completion Time continue to apply to each additional containment isolation valve inoperability, with the Completion Time based on each subsequent entry into the Condition consistent with Note 2 to the ACTIONS Table (e.g., for each entry into the Condition). The containment isolation valve(s) inoperable as a result of that entry shall meet the Required Action and Completion Time.

D.1, D.2, and D.3

In the event one or more containment shutdown or mini-purge valves in one or more penetration flow paths are not within the leakage limits, leakage must be restored to within limits, or the affected penetration flow path must be isolated. The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, or closed manual valve (this includes power operated valves with power removed), ~~or blind flange~~. A containment shutdown purge or mini-purge valve with resilient seals utilized to satisfy Required Action D.1 must have been demonstrated to meet the leakage requirements of SR 3.6.3.6 or SR 3.6.3.7. The specified Completion Time is reasonable, considering that one containment purge valve remains closed so that a gross breach of containment does not exist.

BASES

ACTIONS
(continued)

E.1 and E.2

If the Required Actions and associated Completion Times are not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.1

Each 36 inch containment shutdown purge supply and exhaust valve is required to be verified sealed closed ~~or closed and blind flange installed~~ at 31 day intervals. Each 36 inch containment shutdown purge supply and exhaust valve inside containment must be verified sealed closed ~~or blind flange installed~~ prior to entering MODE 4 from MODE 5, if the surveillance has not been performed in the previous 92 days. This Surveillance is designed to ensure that a gross breach of containment is not caused by an inadvertent or spurious opening of a containment shutdown purge valve. Detailed analysis of these valves failed to conclusively demonstrate their ability to close during a LOCA in time to limit offsite doses. Therefore, these valves are required to be in the sealed closed position ~~or closed and blind flange installed~~ during MODES 1, 2, 3, and 4. A containment shutdown purge valve that is sealed closed must have motive power to the valve operator removed. This can be accomplished by de-energizing the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The Frequency is a result of an NRC initiative, Multi-Plant Action No. B-24 (Ref. 4), related to containment purge valve use during plant operations. In the event valve leakage requires entry into Condition D, the Surveillance permits opening one purge valve in a penetration flow path to perform repairs.

SR 3.6.3.2

This SR ensures that the mini-purge valves are closed as required or, if open, open for an allowable reason. If a mini-purge valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits. The SR is not required to be met when the mini-purge valves are open for the reasons stated. The valves may be opened for pressure control, ALARA or air quality