

WOLF CREEK NUCLEAR OPERATING CORPORATION

Jaime H. McCoy
Vice President Engineering

January 17, 2017

ET 17-0001

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

Subject: Docket No. 50-482: License Amendment Request for the Transition to Westinghouse Core Design and Safety Analyses

Gentlemen:

Pursuant to 10 Code of Federal Regulations (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 No. NPF-42 for the Wolf Creek Generating Station (WCGS).

WCNOC originally submitted the License Amendment Request (LAR) for the Transition to Westinghouse Core Design and Safety Analysis (CDSA) on August 13, 2013. On June 18, 2014, the LAR for the transition to Westinghouse CDSA was withdrawn. The Nuclear Regulatory Commission (NRC) issued four Requests for Additional Information (RAI) during the December 2013 to April 2014 timeframe. WCNOC has previously responded to two of the four RAIs. A response to all applicable RAIs has been included in the revised LAR and integrated into the text, where appropriate.

The proposed amendment request would add new Technical Specification (TS) Limiting Condition for Operation (LCO) 3.1.9, "RCS Boron Limitations < 500°F," and revise Safety Limits 2.1.1, "Reactor Core SLs," TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," TS 3.4.1, "RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits," TS 3.7.1, "Main Steam Safety Valves (MSSVs)," and Specification 5.6.5, "CORE OPERATING LIMITS REPORT (COLR)" to replace the existing WCNOC methodology for performing core design, non-loss-of-coolant-accident (non-LOCA) and LOCA safety analyses (for Post-LOCA Subcriticality and Cooling only) with standard Westinghouse developed and Nuclear Regulatory Commission (NRC) approved analysis methodologies.

In addition, the proposed amendment request revises the TS definitions of DOSE EQUIVALENT I-131, and DOSE EQUIVALENT XE-133, Specification 5.5.12, "Explosive Gas and Storage Tank Radioactivity Monitoring Program," and Specification 5.5.18, "Control Room Envelope Habitability Program," to revise the WCGS licensing basis by adopting the Alternative Source Term (AST) radiological analysis methodology in accordance with 10 CFR 50.67, "Accident source term." This amendment request represents a full scope implementation of the AST as described in NRC Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," Revision 0.

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The proposed change for full scope implementation of the AST is fully discussed, including the associated TS, TS Bases, and Updated Safety Analysis Report (USAR) markups, in Enclosure IV of this amendment request. These proposed changes are provided in a separate enclosure to allow the implementation of the AST to be reviewed separately from the other changes proposed in this amendment request. Enclosure V is a CD-ROM containing meteorological data used to determine offsite, control room, and technical support center atmospheric dispersion factors.

The transition to Westinghouse Core Design and Safety Analysis methodologies was performed to utilize current methodologies and provide more consistent alignment with the Westinghouse fleet of plants. Additionally, the reanalyzed USAR Chapter 15 accidents affected the associated radioactive steam releases which required the radiological consequence analyses to be updated. The radiological consequence analyses were performed using the updated accident source term consistent with 10 CFR 50.67. Therefore, the interdependent relationships between the reanalyzed USAR Chapter 15 accidents and transients, and radiological consequence analyses, necessitates combining these analyses and calculations into a single license amendment request.

The proposed changes for transitioning to Westinghouse Core Design and Safety Analysis are provided on CD-ROM in Attachments I through V. Attachments I through V provide the Evaluation, proposed TS changes, retyped TS pages, proposed TS Bases changes, and proposed COLR changes, respectively, in support of this amendment request. Attachments IV and V are provided for information only. 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.

Enclosure I is on CD-ROM containing WCAP-17658-NP, Revision 1, "Wolf Creek Generating Station Transition of Methods for Core Design and Safety Analyses – Licensing Report" (Non-Proprietary) to support the proposed changes documented in Attachments I - V described above. Enclosure II is on CD-ROM containing WCAP-18083-P, Revision 0, "Westinghouse Revised Thermal Design Procedure Uncertainty Calculations for the Wolf Creek Generating Station" (Proprietary), while Enclosure III is on CD-ROM containing WCAP-18083-NP, Revision 0, the non-proprietary version of the same report. Enclosure IV, as described above, is on CD-ROM containing a separate section for the proposed AST full scope implementation, including the associated TS, TS Bases, and USAR markups. Enclosure V is a CD-ROM containing meteorological data used to determine offsite, Control Room, and Technical Support Center atmospheric dispersion factors that supports the proposed changes documented in Enclosure IV. Enclosure VI is on CD-ROM containing the Proprietary responses to the NRC's request for additional information (RAI) for the August 2013 submittal, WCNO Letter ET 13-0023, "License Amendment Request for the Transition to Westinghouse Core Design and Safety Analysis." Enclosure VII is on CD-ROM containing the Non-Proprietary responses to the NRC's RAI for the August 2013 submittal, WCNO Letter ET 13-0023, "License Amendment Request for the Transition to Westinghouse Core Design and Safety Analysis." Enclosure VIII is on CD-ROM containing supplemental documents to support the NRC RAI responses in Enclosures VI and VII. Enclosure IX is on CD-ROM containing the Westinghouse Application for Withholding Proprietary Information from Public Disclosure, accompanying Affidavit, Proprietary Information Notice, and Copyright Notice for the information contained in Enclosure II. Likewise, Enclosure X is on CD-ROM containing the Westinghouse Application for Withholding Proprietary Information from Public Disclosure, accompanying Affidavit, Proprietary Information Notice, and Copyright Notice for the information contained in Enclosure VI.

As Enclosures II and VI contain information proprietary to Westinghouse Electric Company LLC, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the NRC and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.390 of the NRC's regulations. Accordingly, it is respectfully requested that the information, which is proprietary to Westinghouse, be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the NRC's regulations.

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, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," Section (b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of this amendment.


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

On August 25, 2016, WCNOG and Westinghouse personnel conducted a follow-up pre-submittal meeting with the NRC staff to discuss the licensee's planned submittal of a license amendment request that proposes (1) a new technical specification for reactor coolant system boron limitations, (2) a revision to the licensing basis by full scope implementation of an alternate source term (AST) in accordance with 10 CFR 50.67, "Accident Source Term," and (3) the transition to Westinghouse core design and safety analysis methodologies for Wolf Creek Generating Station (WCGS).

WCNOG is requesting approval of the proposed license amendment prior to February 23, 2018 allowing implementation during Refueling Outage 22. It is anticipated that the license amendment, as approved, will become effective upon issuance and will be implemented within 90 days of NRC issuance.

There are no regulatory commitments contained in this submittal. If you have any questions concerning this matter, please contact me at (620) 364-4156, or Cynthia R. Hafenstine at (620) 364-4204.

Sincerely,



Jaime H. McCoy

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- Attachments:
- I CD-ROM containing Evaluation
 - II CD-ROM containing Proposed Technical Specification Changes (Mark-up)
 - III CD-ROM containing Revised Technical Specification Pages
 - IV CD-ROM containing Proposed TS Bases Changes (for information only)
 - V CD-ROM containing Proposed COLR Changes (for information only)
- Enclosures:
- I CD-ROM containing WCAP-17658-NP, Revision 1, "Wolf Creek Generating Station Transition of Methods for Core Design and Safety Analyses – Licensing Report" (Non-Proprietary)
 - II CD-ROM containing WCAP-18083-P, Revision 0, "Westinghouse Revised Thermal Design Procedure Uncertainty Calculations for the Wolf Creek Generating Station" (Proprietary)
 - III CD-ROM containing WCAP-18083-NP, Revision 0, "Westinghouse Revised Thermal Design Procedure Uncertainty Calculations for the Wolf Creek Generating Station" (Non-Proprietary)
 - IV CD-ROM containing Full Scope Implementation of Alternative Source Term, Revision 1 (Non-Proprietary)
 - V CD-ROM containing Meteorological Data Used to Determine Offsite, Control Room and TSC Atmospheric Dispersion Factors
 - VI CD-ROM containing Responses to NRC RAIs on August 2013 Methodology Transition LAR Submittal (Proprietary)
 - VII CD-ROM containing Responses to NRC RAIs on August 2013 Methodology Transition LAR Submittal (Non-Proprietary)
 - VIII CD-ROM containing Supplemental Documents to Support NRC RAI Responses
 - IX CD-ROM containing CAW-16-4499, Application for Withholding Proprietary Information from Public Disclosure and Affidavit for Enclosure II "Westinghouse Revised Thermal Design Procedure Uncertainty Calculations for the Wolf Creek Generating Station" (Proprietary)
 - X CD-ROM containing CAW-16-4500, Application for Withholding Proprietary Information from Public Disclosure and Affidavit for Enclosure VI, "Responses to NRC RAIs on August 2013 Methodology Transition LAR Submittal" (Proprietary)

cc: K. S. Steves (KDHE), w/a, w/e (Non-Proprietary only)
K. M. Kennedy (NRC), w/a, w/e
B. K. Singal (NRC), w/a, w/e
N. H. Taylor (NRC), w/a, w/e
Senior Resident Inspector (NRC), w/a, w/e

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Jaime H. McCoy, 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 *Jaime H McCoy*
Jaime H. McCoy
Vice President Engineering

SUBSCRIBED and sworn to before me this 17th day of January, 2017.

Gayle Shephard
Notary Public



Expiration Date 7/24/2019

Enclosed are two CD-ROMs containing the attachments and enclosures for the Wolf Creek Nuclear Operating Corporation Letter ET 17-0001, "License Amendment Request for the Transition to Westinghouse Core Design and Safety Analysis," dated January 17, 2017. In accordance with 10-CFR2.390, files 007, 010, 017, and 018 are considered proprietary and therefore, warrant withholding.

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Document Components:

The CD-ROM labelled "License Amendment Request for the Transition to Westinghouse Core Design and Safety Analysis" contains the following files:

001_Att 1 Evaluation	142 KB, publicly available
002_Att 2 Proposed TS Changes	3.30 MB, publicly available
003_Att 3 Revised TS Pages	96 KB, publicly available
004_Att 4 Proposed TS Bases Changes	1.63 MB, publicly available
005_Att 5 Proposed COLR Changes	1.87 MB, publicly available
006_Enc 1 WCAP-17658-NP, Rev 1	6.65 MB, publicly available
007_Enc 2 WCAP-18083-P, Rev 0	783 KB, Proprietary
008_Enc 3 WCAP-18083-NP, Rev 0	579 KB, publicly available
009_Enc 4 Alternative Source Term, Rev 1	8.89 MB, publicly available
010_Enc 6 RAI Responses	997 MB, Proprietary
011_Enc 7 RAI Responses	1.01 MB, publicly available
012_Enc 8 BNL TR A-3788	1.04 MB, publicly available
013_Enc 8 WCAP-13247	1.03 MB, publicly available
014_Enc 8 OG-92-25	477 KB, publicly available
015_Enc 8 CAW-92-287	1.05 MB, publicly available
016_Enc 8 Att to WOG-93-066	335 KB, publicly available
017_Enc 9 CAW-16-4499	169 KB, Proprietary
018_Enc 10 CAW-16-4500	173 KB, Proprietary

The CD-ROM labelled "Enclosure V- CD-ROM containing Meteorological Data Used to Determine Offsite, Control Room, and TSC Atmospheric Dispersion Factors" contains Meteorological data files.