

Dominion Nuclear Connecticut, Inc.
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February 9, 2015

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

Serial No. 14-493A
NSSL/WDC R0
Docket No. 50-423
License No. NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
REVISED RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING
LICENSE AMENDMENT REQUEST FOR PROPOSED TECHNICAL SPECIFICATION
CHANGES OF THE REFUELING WATER STORAGE TANK ALLOWABLE
TEMPERATURES

By letter dated November 6, 2013, Dominion Nuclear Connecticut, Inc. (DNC) submitted a license amendment request (LAR) for Millstone Power Station Unit 3 (MPS3). The proposed amendment would revise Technical Specification (TS) 3/4.5.4, "Refueling Water Storage Tank," and TS 3/4.6.2.1, "Depressurization and Cooling Systems, Containment Quench Spray System," to provide additional operational margin for control of the Refueling Water Storage Tank (RWST) temperature. In an email dated September 8, 2014, the Nuclear Regulatory Commission (NRC) transmitted a request for additional information (RAI) to DNC related to the LAR. After a clarification call, the NRC transmitted a revised RAI. DNC responded to the revised RAI in a letter dated November 14, 2014. In a call with the NRC on January 8, 2015, DNC agreed to revise the response to RAI Question 2 in the November 14, 2014 submittal. In addition, DNC is providing supplemental information based on a review of the MPS3 Cycle 17 boration requirements verification analysis that was discussed with the NRC in a call on December 16, 2014.

The attachment to this letter provides DNC's revised response to RAI Question 2 and supplemental information on the reload analysis for MPS3 Cycle 17.

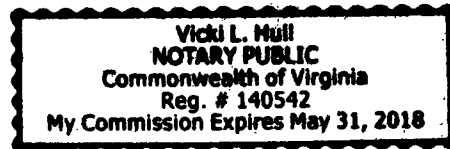
If you have any questions regarding this submittal, please contact Wanda Craft at (804) 273-4687.

Sincerely,

Mark D. Sartain
Vice President – Nuclear Engineering

COMMONWEALTH OF VIRGINIA)

COUNTY OF HENRICO)



The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Mark D. Sartain, who is Vice President – Nuclear Engineering of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 9TH day of February, 2015.

My Commission Expires: May 31, 2018.

Notary Public

A001
MLB

Commitments made in this letter: None

Attachment:

Revised Response to Request for Additional Information Regarding License Amendment
Request For Proposed Technical Specification Changes Of The Refueling Water Storage
Tank Allowable Temperatures

cc: U.S. Nuclear Regulatory Commission
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ATTACHMENT

**REVISED RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
REGARDING LICENSE AMENDMENT REQUEST FOR PROPOSED
TECHNICAL SPECIFICATION CHANGES OF THE REFUELING WATER
STORAGE TANK ALLOWABLE TEMPERATURES**

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Question 2

The LOCA containment M&E release analysis documented in the SPU application (References 2 and 3) was not based on the presently corrected versions of the computer codes in WCAP-10325-P-A (Reference 4) methodology. Westinghouse has issued Nuclear Safety Advisory Letters (NSALs)-06-6, -11-5, and -14-2 reporting errors in the WCAP-10325-P-A methodology and requires containment analyses should be corrected. These specific NSALs have been addressed by other licensees in recent LARs.

Provide a summary of how MPS3 has resolved Nuclear Safety Advisory Letters (NSALs)-06-6, -11-5, and -14-2 documenting that the issues discussed have been resolved.

DNC Revised Response

The LOCA mass and energy release analyses for the SPU project were completed in 2007 and included corrections for the issues identified in Westinghouse NSAL-06-6, "LOCA Mass and Energy Release Analysis". The current Final Safety Analysis Report (FSAR) containment analyses use LOCA mass and energy data that corrected the errors from NSAL-11-5 that were applicable to MPS3. The NSAL-11-5 applicable errors for MPS3 were identified in a license amendment request to change the Technical Specification 6.8.4.F value for Peak Calculated Containment Internal Pressure that was submitted to the NRC in a DNC letter dated April 25, 2013 and approved as License Amendment No. 259.

The current FSAR analyses have not been updated to address NSAL-14-2, "Westinghouse Loss-of-Coolant Accident Mass and Energy Release Calculation Issue

for Steam Generator Tube Material Properties,” which was distributed to MPS3 on April 8, 2014. Since the analysis of record for MPS3 uses material properties for stainless steel instead of Alloy 600, NSAL-14-2 is applicable to MPS3, which results in an under-prediction of the initial stored energy in the steam generator tubes. NSAL-14-2 included a conservative estimate for impact on LOCA peak pressure of 0.2 psia for plants with Alloy 600 tube material. Application of the 0.2 psia conservative penalty from NSAL-14-2 would increase the MPS3 LOCA peak containment pressure from 41.9 psig to 42.1 psig, which continues to remain below the containment design pressure of 45 psig and below the test pressure of 42.5 psig that was measured during the last MPS3 Type A test on November 7, 2011. Therefore, the past Type A test is bounding and the Integrated Leak Rate Test (ILRT) program is not impacted by application of the NSAL-14-2 penalty.

The conservative estimates specified in NSAL-14-2 are not plant specific but are meant to bound the Westinghouse PWR fleet. Based on preliminary information specific to MPS3, NSAL-14-2 is expected to have no impact on the short-term containment peak pressure calculation (and thus no impact on the ILRT program) and a very small effect on the long-term energy release that can be accommodated by margins available in the containment analyses. DNC expects no impact from NSAL-14-2 on the RWST temperature limits proposed in the LAR submitted November 6, 2013. MPS3 is addressing NSAL-14-2 through the corrective action process.

Supplemental Information

DNC recently identified an item associated with the subject LAR that is unrelated to the RAI question, and is providing the following information as a follow-up to an NRC teleconference on December 16, 2014.

Table 2 in Enclosure 1 of Attachment 1 to the LAR identified that the BORDER (Boration Design Requirements) analysis used 100°F for the contents of the RWST for calculation of required RWST volumes. The BORDER analysis demonstrates that the boric acid tank and RWST have adequate boron concentrations and volumes to satisfy the boration requirements. The 100°F temperature was used in the stretch power uprate analysis and was the value specified by DNC for use by the analysis vendor in cycle-specific calculations. During a recent audit of the Westinghouse reload analyses supporting the Millstone Unit 3 Cycle 17 (M3C17) reload design, DNC discovered that the Westinghouse calculation documenting the M3C17 BORDER analysis used 50°F (the current maximum limit in the Technical Specifications) instead of 100°F. The information was entered into the corrective action program at MPS and the NRC Project Manager for MPS was notified of the deviating condition.

Westinghouse has revised the M3C17 BORDER analysis using a 100°F RWST temperature and confirmed that the acceptance criteria for the BORDER analysis continue to be met. Thus, the current plant design basis BORDER calculation supports the LAR as written. DNC corrective actions will ensure that future vendor calculations use an RWST temperature value that bounds the proposed limit in the LAR.