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Dominion®

May 20, 2008

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Serial No.: 07-0450H
NLOS/MAE: R1'
Docket No.: 50-423
License No.: NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
SUPPLEMENTAL INFORMATION REGARDING
STRETCH POWER UPRATE LICENSE AMENDMENT REQUEST
MISCELLANEOUS UPDATES TO THE LICENSE AMENDMENT REQUEST

Dominion Nuclear Connecticut, Inc. (DNC) submitted a stretch power uprate license amendment request (LAR) for Millstone Power Station Unit 3 (MPS3) in letters dated July 13, 2007 (Serial Nos. 07-0450 and 07-0450A), and supplemented the submittal by letters dated September 12, 2007 (Serial No. 07-0450B), December 13, 2007 (Serial No. 07-0450C), March 5, 2008 (Serial No. 07-0450D), March 27, 2008 (Serial No. 07-0450E) and April 24, 2008 (Serial No. 07-0450F). The NRC staff forwarded requests for additional information (RAIs) in October 29, 2007, November 26, 2007, December 14, 2007, December 20, 2007 and April 23, 2008 letters. DNC responded to the RAIs in letters dated November 19, 2007 (Serial No. 07-0751), December 17, 2007 (Serial No. 07-0799), January 10, 2008 (Serial Nos. 07-0834, 07-0834A, 07-0834C, and 07-0834F), January 11, 2008 (Serial Nos. 07-0834B, 07-0834E, 07-0834G, and 07-0834H), January 14, 2008 (Serial No. 07-0834D), January 18, 2008 (Serial Nos. 07-0846, 07-0846A, 07-0846B, 07-0846C, and 07-0846D), January 31, 2008 (Serial No. 07-0834I), February 25, 2008 (Serial Nos. 07-0799A and 07-0834J), March 10, 2008 (Serial Nos. 07-0846E and 07-0846F), March 25, 2008 (Serial No. 07-0834K), April 4, 2008 (Serial No. 07-0834L), April 29, 2008 (Serial No. 08-0248) and May 15, 2008 (Serial No. 08-248A).

DNC is providing miscellaneous updates to some license amendment request sections in the attachment to this letter. The updates affect Section 5.6 of Attachment 1 of the LAR and the following licensing report sections (Attachment 5): Table 1.0-1 of Section 1.0.1, Section 2.2.2.2.2.3, Section 2.4.1.2.3.8 and Table 2.12-1 of Section 2.12.1.

The information provided by this letter does not affect the conclusions of the significant hazards consideration discussion in the December 13, 2007 DNC letter (Serial No. 07-0450C).

Should you have any questions in regard to this submittal, please contact Ms. Margaret Earle at 804-273-2768.

Sincerely,

Gerald T. Bischof
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 Gerald T. Bischof, 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 20th day of May, 2008.

My Commission Expires: August 31, 2008.

Margaret B. Bennett
Notary Public

MARGARET B. BENNETT
Notary Public 354302
Commonwealth of Virginia
My Commission Expires Aug 31, 2008

Commitments made in this letter: See Attachment

Attachment

cc: U.S. Nuclear Regulatory Commission
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ATTACHMENT

LICENSE AMENDMENT REQUEST

STRETCH POWER UPRATE LICENSE AMENDMENT REQUEST

MISCELLANEOUS UPDATES TO THE LICENSE AMENDMENT REQUEST

MILLSTONE POWER STATION UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC.

Stretch Power Uprate License Amendment Request
Miscellaneous Updates To The License Amendment Request

By letter dated July 13, 2007 (Serial No. 07-0450), as supplemented by additional letters, Dominion Nuclear Connecticut, Inc. (DNC), licensee of Millstone Power Station, Unit No. 3 (MPS3), submitted the application, "Dominion Nuclear Connecticut, Inc., Millstone Power Station Unit 3, License Amendment Request, Stretch Power Uprate," to the U.S. Nuclear Regulatory Commission (NRC). The proposed license amendment would allow an increase in the maximum authorized power level from 3,411 megawatts thermal (MWt) to 3,650 MWt, and make changes to the technical specifications, as necessary, to support operation at the stretch power level.

The following parts of the license amendment request (LAR) are being updated. The updated parts are provided together with reason for change:

1. Table 1.0-1 of Section 1.0.1, General Overview of the Millstone Power Station, Unit 3 SPU Licensing Report, Attachment 5:

   Updated table:

Table 1.0-1 MPS3 Power Uprate Planned Modification

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON
Main Feedwater Pump	Turbine replacement	Improves plant performance due to increased flow.
Turbine Building HVAC	Modified ductwork to provide additional ventilation cooling in the condensate pump area.	Improves margin regarding temperature limits for the condensate pump motor windage.
Control Building Ventilation	Control Building auto initiation of pressurized filtration following Control Building isolation signal.	Reduces control room dose following a fuel handling accident.

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON
Turbine Generator	1) Control valve position demand vs. lift settings for the valve position cards 2) Changes to power load imbalance circuits 3) Sensor rescaling for steam pressure changes 4) Instrument scaling 5) Main control board meter scale changes	Provide proper indication for SPU conditions.
Component Cooling Water	Increase in piping design temperature between RHS and Component Cooling Water Heat Exchanger	Permits reactor cooldown.
Instrumentation & Control Systems	Setpoint changes 1) BOP system 2) Feedwater pump 3) Pressurizer level control 4) Electronic filter on Thot signal 5) PRT level alarm 6) Condenser steam dump trip valve control 7) P-8 setpoint change	 1) Provides proper indication for SPU conditions. 2) Improves performance regarding proper system operation. 3) Supports the revised analysis regarding loss of normal feedwater and accommodate RCS shrink and swell at SPU conditions. 4) Improves operational margin for observed Thot temperature spikes. 5) Supports the revised analysis regarding loss of normal feedwater and accommodate RCS shrink and swell at SPU conditions. 6) Permits proper operation during SPU conditions. 7) Improves performance regarding proper system operation.

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON
Pipe Support Modifications: Condensate, Feedwater, Component Cooling Water, and Containment Recirculation	Pipe support modifications	Improve margin regarding SPU conditions.
ECCS	Permissive for opening cold leg injection valves	Reduces severity of the inadvertent ECCS actuation analysis, due a logic that requires both an SI signal and a low RCS pressure signal to exist before automatically opening the cold leg injection valves.
Instrument Loop Rescaling	First stage turbine pressure	Provides proper indication for SPU conditions.

Reason for change:

SYSTEM/ COMPONENT	CHANGE	REASON FOR CHANGE
Main Feedwater Pump	Turbine replacement	No change
Turbine Building HVAC	Modified ductwork to provide additional ventilation cooling in the condensate pump area.	No change
Control Building Ventilation	Control Building auto initiation of pressurized filtration following Control Building isolation signal.	No change
Turbine Generator	1) ~~New operating point for generator excitation~~ 2) Control valve position demand vs. lift settings for the valve position cards 3) Changes to power load imbalance circuits 4) ~~Throttle pressure and excess throttle pressure circuit recalibrations~~ 5) Sensor rescaling for steam pressure changes 6) Instrument scaling 7) Main control board ~~& panel~~ meter **scale changes** ~~replacements~~	1) GE determined that existing generator excitation is acceptable as is for SPU. 2) No change 3) No change 4) GE determined that the existing throttle pressure and excess throttle pressure scaling is acceptable as is for SPU. 5)No change 6)No change 7) Detailed design change determined that present meters are acceptable with only a scale replacement necessary for SPU.

SYSTEM/ COMPONENT	CHANGE	REASON FOR CHANGE
Component Cooling Water	Increase in piping design temperature between RHS and Component Cooling Water Heat Exchanger.	No change
Instrumentation & Control Systems	Setpoint changes: 1) BOP system 2) Feedwater pump 3) Pressurizer level control 4) Electronic filter on Thot signal 5) PRT level alarm 6) Condenser steam dump trip valve control 7) P-8 setpoint change	No change
Pipe Support Modifications: Condensate, Feedwater Component Cooling Water, and ~~Extraction Steam~~ **Containment Recirculation**	Pipe support modifications	Final stress calculations resulted in acceptable loads for extraction steam supports. The containment recirculation support modifications were omitted from the original license amendment request.
ECCS	Permissive for opening cold leg injection valves	"Permits elimination" is changed to "Reduce severity" in the "Reason" column. Analysis for an inadvertent ECCS actuation is still performed. The modification reduces the severity of this event.

SYSTEM/ COMPONENT	CHANGE	REASON FOR CHANGE
Instrument Loop Rescaling	~~1) Isophase bus duct cooler flow~~	Calculation error underestimated present cooler capabilities, which are acceptable for SPU.
	~~2) MSR steam flow~~	MSR flow optimization implemented in July, 2007, reduced required steam flow such that present range is acceptable for SPU.
	3) First stage turbine pressure	No change

2. Licensing report Section 2.4.1.2.3.8, Reactor Protection, Safety Features Actuation, and Control Systems, other Systems, Attachment 5:

   a. Delete the following paragraph:

   "**Main Steam System Instrumentation**

   The main steam evaluation determined that the moisture separator reheater steam supply increases approximately 5 percent. (Section 2.5.5.1, Main Steam, Table 2.5.5.1-1) As a result, the measurement range of the moisture separator reheater steam supply flow instrument loops will be rescaled to accommodate this increased flowrate."

   Reason for change:

   MSR flow optimization implemented in July, 2007, reduced required steam flow such that present range is acceptable for SPU.

   b. Replace the following paragraph:

   "Condensate and Feedwater System Instrumentation

   The condensate and feedwater system evaluation is described in Section 2.5.5.4, Condensate and Feedwater. As a result of that evaluation, the two main feed pump turbine speeds will increase and the speed control loop differential pressure input will change from the existing 140 psid (nominal) to approximately 212 psid (nominal) for the SPU conditions. (Section 2.5.5.4, Condensate and Feedwater)."

With

"Condensate and Feedwater System Instrumentation

The condensate and feedwater system evaluation is described in Section 2.5.5.4, Condensate and Feedwater. As a result of that evaluation, the two main feed pump turbine speeds will increase and the speed control loop differential pressure input will change from the existing 140 psid setpoint (nominal) to approximately 175 psid (nominal) for the SPU conditions. (Section 2.5.5.4, Condensate and Feedwater)."

Reason for change:

Original calculation used overly conservative bounding design assumptions. Detailed design based on expected SPU operating points results in a lower required differential pressure setpoint.

3. Licensing report Section 2.2.2, Pressure-Retaining Components and Component Supports, Attachment 5:

   a. In Section 2.2.2.2.2.3, Results, replace the following paragraph (page 2.2-19):

      "The results of the evaluations of the BOP piping and support systems listed in Section 2.2.2.2.2.1(Introduction) have determined that these systems remain acceptable for SPU conditions, with the exception of the recirculation spray, feedwater, condensate, and MSR vent and drain systems, which will require pipe support modifications to accommodate the revised loads due to SPU."

      With

      "The results of the evaluations of the BOP piping and support systems listed in Section 2.2.2.2.2.1 (Introduction) have determined that these systems remain acceptable for SPU conditions, with the exception of the recirculation spray, feedwater and condensate piping systems, which will require pipe support modifications to accommodate the revised loads due to SPU."

      Reason for change:

      Final stress calculations resulted in acceptable loads for the Moisture Separator Reheater (MSR) vent and drain piping supports. This change will make the description in the above mentioned LAR section consistent with updated Table 1.0-1, "MPS3 Power Uprate Planned Modification".

b. In Section 2.2.2.2.2.3, Results, replace the following paragraph (page 2.2-20):

"The results of the pipe support evaluations for systems impacted by SPU concluded that all supports remain acceptable, with the exception of several pipe supports on the recirculation spray, feedwater, condensate and MSR vent and drain piping systems which will require modification to accommodate the revised loads due to SPU."

With

"The results of the pipe support evaluations for systems impacted by SPU concluded that all supports remain acceptable, with the exception of several pipe supports on the recirculation spray, feedwater and condensate piping systems which will require modification to accommodate the revised loads due to SPU."

Reason for change:

Final stress calculations resulted in acceptable loads for the Moisture Separator Reheater (MSR) vent and drain piping supports. This change will make the description in the above mentioned LAR section consistent with updated Table 1.0-1, "MPS3 Power Uprate Planned Modification".

c. In Section 2.2.2.2.3, Conclusion, replace the following part (page 2.2-20):

"DNC concludes that pipe stress levels for BOP piping will remain within allowable stress limits. DNC also concludes that all supports remain acceptable, with the exception of several pipe supports on the recirculation spray, feedwater, condensate and MSR vent and drain piping systems which will require modification to accommodate the revised loads due to SPU."

With

"DNC concludes that pipe stress levels for BOP piping will remain within allowable stress limits. DNC also concludes that all supports remain acceptable, with the exception of several pipe supports on the recirculation spray, feedwater and condensate piping systems which will require modification to accommodate the revised loads due to SPU."

Reason for change:

Final stress calculations resulted in acceptable loads for the Moisture Separator Reheater (MSR) vent and drain piping supports. This change will make the description in the above mentioned LAR section consistent with updated Table 1.0-1, "MPS3 Power Uprate Planned Modification".

4. Table 2.12-1 of Section 2.12.1, Approach to SPU Power Level and Test Plan, Attachment 5:

Updated table:

Table 2.12-1
SPU Power Ascension Test Plan Summary

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	TESTS
Main Feedwater Pump	Turbine replacement	1) Post modification testing 2) Monitor pump speed 3) Monitor discharge pressure and flow 4) Monitor pump vibration 5) Confirm increased main feed pump turbine steam flow at anticipated values
Turbine building HVAC	Modified ductwork to provide additional ventilation cooling in the condensate pump area.	1) Post modification testing after ductwork modifications are complete.
Control Building Ventilation	Control Building auto initiation of filtered recirculation following Control Building isolation signal.	Series of post-modification tests to verify changes: 1) Equipment calibration 2) Input of various control signals 3) Manipulation of component controls 4) Cycling of components 5) System operation.
Turbine Generator	1) Control valve position demand vs. lift settings for the valve position cards 2) Changes to power load imbalance circuits 3) Pressure sensor and instrument loop rescaling for steam pressure changes 4) Instrument scaling 5) Main control board meter scale replacements	Series of post-modification tests to verify changes: 1) Equipment calibration 2) Input of various control signals 3) Manipulation of component controls 4) Cycling of components 5) System operation 6) Confirm proper indication for uprated conditions.

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	TESTS
Instrumentation & Control Systems	Setpoint changes 1) BOP system 2) Feedwater pump 3) Pressurizer level control 4) Electronic filter on Thot signal 5) PRT level alarm 6) Condenser steam dump trip valve control 7) P-8 setpoint change	1) Verify setpoint changes correctly implemented via the MPS3 design control program. 2) Verify proper system operation at uprated conditions. 3) Post modification test.
Pipe Support Modifications: RSS, CCP, FWS, and CND	Pipe support modifications	1) NDE 2) QC inspections 3) Vibration monitoring 4) System walk-downs
ECCS	Permissive for opening cold leg injection valves	Series of post-modification tests to verify changes: 1) Equipment calibration 2) Input of various control signals 3) Manipulation of component controls 4) Cycling of components.
Instrument Loop Rescaling	First stage turbine pressure	1) Post modification testing 2) Confirm proper indication for uprated conditions.
Rod Control System	Deletion of auto rod control	Series of post-modification tests to verify changes: 1) Input of various control signals 2) Manipulation of component controls to show that control rods do not withdraw under control inputs that previously would have resulted in outward rod motion.

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	TESTS
POWER ASCENSION TESTING SUMMARY		
Reactor, RCS piping	NA	Vibration monitoring in-service
Ventilation Systems	NA	Ventilation system operability test (TRM)
Chemical and Volume Control System	NA	Maintain primary and secondary chemistry within the requirements of the Chemistry Control Program.
Plant Process Computer	NA	Verify calorimetric calculation is correct.
Reactor Core	NA	Utilize plant procedures for post-refueling power physics testing and MPS3 uprate power ascension testing to verify applicable core design parameters.
NSSS	NA	1) Utilize MPS3 uprate power ascension testing procedure to trend parameters, evaluate data, and rescale instrumentation (ΔT, Nuclear Instrumentation, turbine impulse pressure). 2) Ensure systems that determine reactor thermal power are properly calibrated.
Engineered Safety Features (ESF) Equipment	NA	Utilize MPS3 Technical Specification surveillance program to verify ESF Systems operability.
Plant Radiation Levels	NA	Utilize MPS3 Radiation Protection Manual to verify acceptable plant radiation levels.

Reason for change:

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON FOR CHANGE
Main Feedwater Pump	Turbine replacement	No change
~~Feedwater Heater~~	~~Modify level control valves due to increased drain flows~~	Erroneously included in Table 2.12-1. Level control valves are acceptable for SPU.
Turbine Building HVAC	Modified ductwork to provide additional ventilation cooling in the condensate pump area.	No change
Control Building Ventilation	Control Building auto initiation of filtered recirculation following Control Building isolation signal.	No change
Turbine Generator	1) ~~New operating point for generator exitation~~ 2) Control valve position demand vs. lift settings for the valve position cards 3) Changes to power load imbalance circuits 4) ~~Throttle pressure and excess throttle pressure circuit recalibrations~~ 5) Sensor rescaling for steam pressure changes 6) Instrument scaling 7) Main control board ~~& panel~~ meter **scale** replacements	1) GE determined that existing generator excitation is acceptable as is for SPU. 2) No change 3) No change 4.a) GE determined that the existing throttle pressure scaling is acceptable as is for SPU. 4.b) Non-SPU modification will eliminate excess throttle pressure circuit per GE recommendation. 5) No change 6) No change 7) Detailed design change determined that present meters are acceptable with only a scale replacement necessary for SPU.

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON FOR CHANGE
Instrumentation & Control Systems	Setpoint changes 1) BOP system 2) Feedwater pump 3) Pressurizer level control 4) Electronic filter on Thot signal 5) PRT level alarm 6) Condenser steam dump trip valve control 7) P-8 setpoint change	 1) No change 2) No change 3) No change 4) No change 5) No change 6) No change 7) No change
Pipe Support Modifications: ~~QSS~~/RSS, ~~CCW, FW~~ CCP, FWS, and ~~SW~~ CND	Pipe support modifications	Changed to agree with revised Table 1.0-1.
ECCS	Permissive for opening cold leg injection valves	No change
Instrument Loop Rescaling	1) ~~Isophase bus duct cooler flow~~ 2) ~~MSR steam flow~~ 3) First stage turbine pressure	1) Calculation error underestimated present cooler capabilities, which are acceptable for SPU. 2) MSR flow optimization implemented in July, 2007, reduced required steam flow such that present range is acceptable for SPU. 3) No change
Rod Control System	Deletion of auto rod control	No change

SYSTEM/ COMPONENT	MODIFICATION DESCRIPTION	REASON FOR CHANGE
POWER ASCENSION TESTING SUMMARY		
Reactor, RCS piping	NA	No change
Ventilation Systems	NA	No change
Chemical and Volume Control System	NA	No change
Plant Process Computer	NA	No change
Reactor Core	NA	No change
NSSS	NA	No change
Engineered Safety Features (ESF) Equipment	NA	No change
Plant Radiation Levels	NA	No change

4. Attachment 1 of LAR, Section 5.6, RCS Low Pressure Permissive for Opening the ECCS Charging Injection Valves Following a Safety Injection, page 18:

   Replace the following paragraph:

   "The current analysis for an inadvertent safety injection actuation at power documented in FSAR Section 15.5.1 shows that there is 10.7 minutes for operator action to preclude water relief from the pressurizer safety valves for which the pressurizer safety valves are not designed. Because of the higher RCS average temperature associated with the increased power level, a higher pressurizer level is needed to assure the pressurizer heaters will not uncover during a routine reactor trip. The higher pressurizer level will reduce the margin for operator action."

   With:

   "The current analysis for an inadvertent safety injection actuation at power documented in FSAR Section 15.5.1 shows that there is 10.48 minutes for

operator action to preclude water relief from the pressurizer safety valves for which the pressurizer safety valves are not designed. Because of the higher RCS average temperature associated with the increased power level, a higher pressurizer level is needed to assure the pressurizer heaters will not uncover during a routine reactor trip. The higher pressurizer level will reduce the margin for operator action."

Reason for change:

A design change, "charging system alternate minimum flow line modifications," which was implemented during MPS3 refueling outage No. 11, prior to the submittal of the SPU LAR, modified the time for operator action that resulted in a change to the 10.7 minute time frame. The FSAR currently states: "Operator action at 10 minutes to ensure that at least one PORV is unblocked is assumed to occur such that a relief path is full open at 10.48 minutes and water relief through the PSRVS is precluded."