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Dominion®

December 13, 2007

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

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

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3
SUPPLEMENTAL INFORMATION FOR LICENSE AMENDMENT REQUEST
STRETCH POWER UPRATE

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 letter dated September 12, 2007 (Serial No. 07-0450B). The NRC staff forwarded a request for additional information (RAI) in an October 29, 2007 letter. DNC responded to the RAI in a November 19, 2007 letter (Serial No. 07-0751).

Following discussions with the NRC staff, DNC has revised the proposed No Significant Hazards Consideration (NSHC) determination that was provided in Attachment 1 of the DNC letter dated July 13, 2007 (Serial No. 07-0450). The NSHC determination was revised to condense the information previously submitted. The revised NSHC determination supersedes the previously submitted NSHC determination and is provided as an attachment to this letter. The revised NSHC determination is consistent with regulatory guidance provided in NRC Regulatory Issue Summary (RIS) 2001-22, "Attributes of a Proposed No Significant Hazards Consideration," dated November 20, 2001.

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

Attachment

Commitments made in this letter: None

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 13TH day of December, 2007.

My Commission Expires: May 31, 2010.

VICKI L. HULL
Notary Public
Commonwealth of Virginia
140542
My Commission Expires May 31, 2010

Vicki L. Hull
Notary Public

cc: U.S. Nuclear Regulatory Commission
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Director
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ATTACHMENT

LICENSE AMENDMENT REQUEST

STRETCH POWER UPRATE LICENSE AMENDMENT REQUEST

REVISED NO SIGNIFICANT HAZARDS CONSIDERATION

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 3

REVISED NO SIGNIFICANT HAZARDS CONSIDERATION

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) requests an amendment to Operating License NPF-49 for Millstone Power Station Unit 3 (MPS3). This proposed Stretch Power Uprate (SPU) License Amendment Request (LAR) would increase the unit's authorized core power level from 3411 megawatts thermal (MWt) to 3650 MWt, and make changes to Technical Specifications as necessary to support operation at the stretch power level.

DNC has evaluated whether or not a significant hazards consideration is involved with the proposed changes by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

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

Response: No

The accident analyses documented in Chapter 6 and 15 of the FSAR have been reanalyzed at the SPU conditions. For some accidents, credit has been taken for a number of minor modifications that will be installed in order to maintain analytical and operating margin. These minor modifications include the following:

- Installation of a Safety Injection Actuation Signal permissive for the charging injection isolation valves.
- Installation of an electronic filter on the T-hot temperature input into the Reactor Protection System and modification of the Over-temperature ΔT and Over-power ΔT reactor trip set points.
- Elimination of the automatic rod withdrawal capability for the rod control system.
- Installation of an automatic initiation of pressurized filtration mode of the Control Building ventilation system.

Technical Specifications (TS) changes, as appropriate, have been proposed to reflect the implementation of these modifications. The revised accident analyses have been performed with current state-of-the-art methodologies that have been generically approved by the NRC. All restrictions and limitations of these methodologies, including those identified by the NRC, have been met in the application of these methodologies to the SPU accident analyses. The results of the accident analyses at SPU conditions together with the proposed modifications demonstrate that all design basis criteria are met and that the SPU does not result in a significant increase in the consequences of any previously evaluated accidents.

Analyses have been performed for operational transients that have identified some changes to control system set points. These changes assure that the control systems will respond and limit challenges to the Reactor Protection System (RPS) and Emergency Core Cooling System (ECCS) from routine operational transients, such as startup and shutdown. These changes assure that there will be no significant increase in probability of occurrence of an accident at SPU conditions.

Comprehensive evaluations of plant structures, systems and components (SSCs) have been performed and confirmed that all systems are capable of performing their intended design functions at uprated power conditions. Some Technical Specifications Surveillance Requirements have been revised to reflect SPU conditions and to reflect current generic TS standards. All systems will continue to be operated in accordance with design requirements under SPU conditions; therefore, no new components or system interactions have been identified that could lead to an increase in the probability of any accident previously evaluated in the Final Safety Analysis Report (FSAR).

The radiological consequence calculations were revised to reflect SPU conditions and the predicted releases from the revised accident analyses. All results continue to meet established regulatory limits and there is no significant increase in radiological consequences.

Therefore, the proposed changes do not result in a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No

Detailed evaluations of the configuration, operation, and accident response of the SSCs under SPU conditions and the associated proposed TS changes have been performed to confirm that all SSCs will perform as designed. Analyses of transient events have confirmed that no transient event results in a new sequence of events that could lead to a new accident scenario.

The effect of operation under SPU conditions on plant equipment has been evaluated. A failure modes and effect evaluation has been performed for the proposed new ECCS permissive for the charging injection valves. This has shown that the change does not create any new failure modes that could lead to a different kind of accident. Other minor plant modifications, to support implementation of SPU conditions, will be made to existing systems and components. These modifications provide added margin so that the SSCs will continue to perform their design function and no new safety-related equipment or systems will be installed which could potentially introduce new failure modes or accident sequences.

Based on this analysis, it is concluded that no new accident scenarios, failure mechanisms or limiting single failures are introduced as a result of the proposed changes. The proposed TS changes do not have an adverse effect on any aspect of safety.

Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No

A comprehensive analysis was performed to support the power SPU program at MPS3. This analysis identified and defined the major input parameters to the Nuclear Steam Supply System (NSSS), reviewed NSSS design transients, and reviewed the capabilities of the NSSS fluid systems, NSSS/BOP (balance-of-plant) interfaces, and NSSS and BOP components. The nuclear and thermal hydraulic performance of nuclear fuel was also reviewed to confirm acceptable results. Only minor plant modifications, to support implementation of SPU conditions, will be made to existing systems and components. Changes in set points for actuation of equipment provide added margin for performing the required safety functions and do not adversely affect the outcome of any postulated accident. The analysis indicated that all NSSS and BOP systems and components will continue to operate within existing design and safety limits under SPU conditions.

The margin of safety of the reactor coolant pressure boundary is maintained under SPU conditions. The design pressure of the reactor pressure vessel and reactor coolant system will not be challenged as the pressure mitigating systems were confirmed to be sufficiently sized to adequately control pressure under SPU conditions.

The radiological consequences were re-calculated at SPU conditions for Design Bases Accidents (DBAs) previously analyzed in the FSAR. The analysis showed that the radiological consequences of DBAs continue to meet established regulatory limits at SPU conditions.

The analyses supporting the SPU program have demonstrated that all systems and components are capable of safely operating at SPU conditions. All DBA acceptance criteria will continue to be met. Therefore, it is concluded that the proposed changes do not result in a significant reduction in the margin of safety.

Based on this review, the three standards of 10 CFR 50.92(c) are satisfied. Therefore, DNC determined that the amendment request involves no significant hazards consideration.