

June 15, 2001

MEMORANDUM TO: James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Victor Nerses, Sr. Project Manager
Project Directorate I, Section 2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT 3, FACSIMILE
TRANSMISSION, DRAFT REQUEST FOR ADDITIONAL INFORMATION
(RAI) TO BE DISCUSSED IN AN UPCOMING CONFERENCE CALL
(TAC NO. MA1785)

The enclosed draft RAI was transmitted by facsimile on June 15, 2001, to Mr. Ravi Joshi of Dominion Nuclear Connecticut, Inc. (DNC). This draft RAI was transmitted to facilitate an upcoming conference call in order to clarify the licensee's application dated April 23, 2001, regarding reactor coolant system heat-up and cool down curves. Review of the RAI would allow DNC to determine and agree upon a schedule to respond to the RAI. This memorandum and the attachment do not convey a formal request for information or represent an NRC staff position.

Docket No. 50-423

Enclosure: Draft Request for Additional Information

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DRAFT

REQUEST FOR ADDITIONAL INFORMATION
REACTOR COOLANT SYSTEM HEATUP AND COOLDOWN CURVES
MILLSTONE NUCLEAR POWER STATION, UNIT 3
DOMINION NUCLEAR CONNECTICUT, INC

1. TS 3.4.1.2 is proposed to be modified by replacing the words “Reactor Trip System breakers are closed” and “Reactor Trip System breakers are open” with the phrases “Control Rod Drive System is capable of rod withdrawal” and “Control Rod Drive System is not capable of rod withdrawal,” respectively, in the Limiting Condition for Operation (LCO) and Action b. It is stated that the proposed changes will provide operational flexibility on how to prevent rod withdrawal. No other justification for the proposed changes was provided. Provide further justification for the proposed changes which addresses how the proposed change is applicable to Millstone Unit 3, and how the current LCO and Action b licensing basis is maintained (if altered, address whether the change is more or less restrictive).
2. TS 3.4.1.3 is proposed to be modified by replacing the words “Reactor Trip System breakers closed” and “Reactor Trip System breakers open” with the phrases “the Control Rod Drive System capable of rod withdrawal” and “the Control Rod Drive System not capable of rod withdrawal,” respectively, in the LCO. It is stated that the proposed changes will provide operational flexibility on how to prevent rod withdrawal. No other justification for the proposed changes was provided. Provide further justification for the proposed changes which addresses how the proposed change is applicable to Millstone Unit 3, and how the current LCO licensing basis is maintained (if altered, address whether the change is more or less restrictive).
3. It is proposed that a new action statement, Action b, be added to TS 3.4.1.3. This action statement is similar to Action b in TS 3.4.1.2. It is stated that the proposed action statement is consistent with the current LCO requirements. No further justification is provided. Provide additional justification for the proposed addition of the new action statement.
4. Additionally, the proposed action statement in TS 3.4.13 does not appear to be consistent with the LCO. LCO 3.4.1.3 states with the Reactor Trip System breakers open, at least two loops consisting of any combination of RCS loops and RHR loops shall be OPERABLE and at least one of these loops shall be in operation. The proposed action statement would open the Reactor Trip System breakers if less than the required reactor coolant loops are in operation and the Control Rod Drive System is capable of rod withdrawal. The proposed action statement does not address the RHR system which may be the only loop in operation based on the LCO requirements.
5. TS 3.4.1.6 is proposed to be modified by the deletion of LCO item d and associated SR 4.4.1.6.3. LCO item d and SR 4.4.1.6.3.a require that the isolated portion of the loop be drained and refilled prior to the opening of the loop stop valves. SR 4.4.1.6.3.b requires a boron concentration greater than or equal to the boron concentration of the operating loops, or greater than 2600 ppm whichever is less. The licensee stated that the need to drain and refill an isolated loop prior to restoration should be dependent on the circumstances associated with

the loop isolation. However, the licensee pointed out that the requirement to drain and refill an isolated loop prior to opening the loop isolation valves was addressed in NRC letter dated November 16, 1987. At the time, License condition C.(4) prohibited three loop operation until the outstanding issues (startup of the isolated loops and human factor concerns) were resolved to the satisfaction of the NRC staff. In that safety evaluation, the staff found the interlocks and procedures described in the Safety Evaluation Report provide assurance that a single equipment failure or a single operator error will not produce unacceptable consequences, i.e., lead to violation of fuel design limits, during the startup of an isolated loop. Specifically, the following two procedures were cited:

“The isolated loop is drained and refilled prior to restart. Refill water is taken from the Volume Control Tank (VCT) which is part of the Chemical and Volume Control System and is the source of make up water for the RCS.”

“Prior to refilling the loop the boron concentrations in the VCT will be measured and confirmed to be greater than that in the RCS. Immediately upon completion of the refill the boron concentration in the VCT will again be measured to confirm that it is still proper. If not, the loop will be drained and refilled.”

Provide further explanation on how the proposed deletion of LCO item 4 and SR 4.4.1.6.3 does not invalidate the conclusions for three loop operation at Millstone 3.