August 20, 2004

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 ***/RA/***
Project Directorate I, Section 2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 3 FACSIMILE TRANSMISSION, DRAFT REQUEST FOR ADDITIONAL INFORMATION (RAI) TO BE DISCUSSED IN AN UPCOMING CONFERENCE CALL (TAC NO. MC3333)

The attached draft RAI was transmitted by facsimile on August 20, 2004, to Mr. Paul Willoughby, Dominion Nuclear Connecticut, Inc. (DNC). This draft RAI was transmitted to facilitate the technical review being conducted by the staff and to support a conference call with DNC in order to clarify certain items in the licensee's submittal. The draft RAI is related to DNC's submittal dated May 27, 2004, regarding the implementation of a alternate source term methodology. 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

MILLSTONE POWER STATION, UNIT NO. 3

(TAC NO. MC3333)

In a letter dated May 27, 2004 (ML041560464), Dominion Nuclear Connecticut, Inc. (the licensee) submitted a proposed license amendment based on application of an Alternative Radiological Source Term (AST) methodology for Millstone Power Station Unit 3. The staff isreviewing the submittal and has determined that the following additional information to complete the review

1. In the license amendment proposal, the licensee states that the containment sump pH will be at least 7 (Table 3.1-4). Please discuss the assumptions and calculations used to determine that the sump pH will remain above 7 for 30 days following the LOCA. Please provide this information in sufficient detail for the staff to perform independent calculations to evaluate the licensee's conclusion. If the calculations were performed manually, describe the methodology and provide sample calculations. If a computer code was used, describe the code and provide the input values and how they were determined. Provide the results of the pH calculations at different time intervals and explain how the time intervals were selected.

2. Did the meteorological measurement program meet the recommendations of Regulatory Guide (RG) 1.23, "Onsite Meteorological Programs," during the period from 1997 through 2001?

3. With regard to guidance in RG 1.194, "Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants," and use of the ARCON96 computer code, the source-to-receptor distance is the shortest horizontal distance between the release point and intake. ARCON96 uses this distance and the elevations of the source and receptor to calculate the slant path. For releases within building complexes, the shortest horizontal distance between the release point and the intake could be through intervening buildings. In these cases, it is acceptable to take the length of the shortest path (e.g., "taut string length") around or over the intervening building as the source-to-receptor distance. However, staff notes that if the source and receptor are at different heights with respect to each other, calculating a "taut string length" may already factor in the vertical component of the distance. In this case, the same value should be input into ARCON96 for both the release and intake heights to avoid estimating erroneous additional slant path distance. Do the "taut string lengths" discussed in Calculation No. DBAX/Qs-04053R3 factor in the differences in elevations between the sources and receptor?

ATTACHMENT

4. Page 7 of Calculation No. DBAX/Qs-04053R3 states that the Turbine Building Vent stack flow rate must be maintained to at least 7.08 m^3/s in the winter. Is this the minimum flow rate during all times of the year and is it reasonable to expect that it can be maintained during the course of an accident (e.g., as addressed by technical specifications) even if a single failure or loss of offsite power occurs?

5. Do X/Q estimates for all of the release/receptor pairs address the most limiting cases, including those potentially associated with single failure and loss of offsite power?

6. In a column title for breathing rates in Table 1.3-5 of Attachment 1 to your letter, does it mistakenly include “X/Q” with the units of breathing rate?