Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Rope Ferry Road
Waterford, CT 06385

Dominion

JUN 2 2003

Docket No. 50-336
B18908

RE: 10 CFR 50.67
10 CFR 50.90

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

Millstone Power Station, Unit No. 2
License Basis Document Change Request (LBDCR) 2-18-02
Selective Implementation of the Alternative Source Term -
Fuel Handling Accident Analyses
Response to Request for Additional Information

By letter dated September 26, 2002,[1] Dominion Nuclear Connecticut, Inc. (DNC) submitted a proposed amendment to the Technical Specifications (TSs) for Millstone Unit No. 2. The proposed amendment would revise the TSs based on a re- analysis of the limiting design basis Fuel Handling Accident (FHA) using an Alternative Source Term in accordance with Title 10 of the Code of Federal Regulations (10 CFR) Section 50.67 and Regulatory Guide 1.183.

By letter dated May 5, 2003,[2] a Request For Additional Information (RAI) was received from the Nuclear Regulatory Commission (NRC) staff, which contained one question related to the aforementioned license amendment request. During a telephone conference with the NRC staff on May 12, 2003, one more question was added.

Attachment 1 provides the DNC response to the question received in the RAI dated May 5, 2003, and the question received during the May 12, 2003, conference call.

(1) J. A. Price letter to the Nuclear Regulatory Commission, "Millstone Power Station, Unit No. 2, License Basis Document Change Request (LBDCR) 2-18-02, Selective Implementation of the Alternative Source Term - Fuel Handling Accident Analyses," dated September 26, 2002.

(2) R. Ennis (NRC) letter to J. A. Price, "Request For Additional Information, Selective Implementation of the Alternative Source Term – Fuel Handling Accident Analyses, Millstone Power Station, Unit No. 2 (TAC No. MB6479)," dated May 5, 2003.

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The additional information provided in this letter will not affect the conclusions of the Safety Summary and Significant Hazards Consideration discussion in the DNC September 26, 2002, letter.

There are no regulatory commitments contained in this letter.

If you should have any questions regarding this submittal, please contact Mr. Ravi Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

J. Alan Price
Site Vice President - Millstone

Sworn to and subscribed before me

this 2nd day of June, 2003

Diane M. Phillips
Notary Public

DIANE M. PHILLIPS
NOTARY PUBLIC
MY COMMISSION EXPIRES 12/31/2005

My Commission expires

cc: H. J. Miller, Region I Administrator
R. B. Ennis, NRC Senior Project Manager, Unit No. 2
Millstone Senior Resident Inspector

Director
Bureau of Air Management
Monitoring and Radiation Division
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

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Attachment 1

Millstone Power Station, Unit No. 2

License Basis Document Change Request (LBDCR) 2-18-02
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License Basis Document Change Request (LBDCR) 2-18-02
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Question No 1:

The proposed changes to TS 3.9.4, "Containment Penetrations," would require that any containment penetration that provides direct access to the outside atmosphere, including the equipment hatch and personnel airlock doors, be capable of being closed under administrative controls within 30 minutes of an FHA. The proposed Bases for TS 3.9.4 and Attachment 2, page 8, of the licensee's submittal state that if it is determined that closure of all containment penetrations would represent a significant radiological hazard to the personnel involved, the decision may be made to forgo the closure of the affected penetration(s). Clarify what is meant by "significant radiological hazard" and describe the specific criteria that will be incorporated into the administrative controls to determine whether to forgo closure of the affected penetration(s).

Response:

The proposed Bases for Technical Specification 3.9.4 (Page B 3/4 9-1a) state that all containment penetrations will be closed within 30 minutes of a fuel handling accident inside containment unless it is determined that such closure would represent a significant radiological hazard to the personnel involved. This represents a prudent qualification on the intended actions given that analysis of the design basis fuel handling accident shows that closure is not required to assure that doses are within applicable limits. Specifically, the radiological analysis of a fuel handling accident in containment did not credit containment closure within 30 minutes. For analysis purposes, all available radioactivity is assumed to escape to the environment over a two-hour period. The doses from a fuel handling accident are less than those specified in 10 CFR 50.67 and Regulatory Guide 1.183 for the Exclusion Area Boundary (EAB), Low Population Zone (LPZ), and control room without closure of containment.

The design basis fuel handling accident analysis also shows that the accident does not result in dose rates that would preclude the closing of all containment penetrations within 30 minutes of a fuel handling accident. Nonetheless, on implementation, the Shift Manager, with assistance from Health Physics personnel, will assess localized radiological conditions to determine if a significant radiological hazard exists to onsite personnel due to an unexpected condition. This determination would be based upon not exceeding the emergency worker dose limit considering measured dose rates from local area radiation monitoring equipment or

portable instrumentation and estimates of the stay times that would be necessary to complete the activity.

As explained in the proposed Bases for Technical Specification 3.9.4, the administrative controls associated with the proposed Technical Specification changes will require designated personnel be available to close containment penetrations in the event of a fuel handling accident. Procedural controls will also be in place to ensure cables or hoses that pass through containment openings can be quickly removed. A closure plan will be used for each containment opening, that will designate the personnel responsible for closing that opening and the estimated time for closure. These administrative controls are described in more detail on pages 7 and 8 of Attachment 2 of the September 26, 2002 submittal.

Question No. 2:

What is the basis for removing the requirement to hold the equipment door in place by a minimum of four bolts in the proposed Technical Specification 3.9.4.a?

Response:

Technical Specification 3.9.4.a is being revised to change from "The equipment door closed and held in place by a minimum of four bolts" to "The equipment door closed or capable of being closed under administrative control."

The purpose of this specification is to provide an atmosphere boundary within 30 minutes such that there is at least one barrier between the containment atmosphere and the outside atmosphere. The radiological analysis of a fuel handling accident in containment, however, did not assume containment closure within 30 minutes. For analysis purposes, all available radioactivity is assumed to escape to the environment over a two-hour period. The doses from a fuel handling accident are less than those specified in 10 CFR 50.67 and Regulatory Guide 1.183 for the EAB, LPZ, and control room without closure of containment.

Therefore, if the boundary can be established with less than four bolts, then the purpose of the specification — defense-in-depth — will be met. There are four external swing bolt attachments, which are welded to the equipment hatch ring flange and hatch barrel liner plate. The external attachments provide a method of securing the hatch from the outside during refueling operations. Any combination of these four bolts can be used to close the equipment hatch and provide an atmosphere boundary within 30 minutes of a fuel handling accident.

Based on discussion with the NRC staff during the telephone conference call on May 12, 2003, appropriate Technical Specification Bases changes will be made to clarify the above method used to provide an atmosphere boundary with the

equipment door in the event of a fuel handling accident. The Bases changes will be made as part of Amendment implementation.