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

Dominion

JUL 18 2001

Docket No. 50-423
B18453

RE: 10 CFR 50.54(f)

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

Millstone Nuclear Power Station, Unit No. 3
Response to a Request for Additional Information Regarding
Potter & Brumfield MDR Series Relays

This letter provides Dominion Nuclear Connecticut, Inc. (DNC) response to a Nuclear Regulatory Commission (NRC) draft Request for Additional Information (RAI)[1] regarding a DNC submittal[2] dated March 2, 2001. This submittal requested the extension of the surveillance interval for testing Millstone Unit No. 3 Potter & Brumfield MDR Series Relays which met the criteria of WCAP-13878[3] and WCAP-13900.[4] Attachment 1 provides our responses to the NRC draft RAI.

DNC has chosen to withdraw from consideration the two slave relays (K740A and K740B - one in each Engineered Safety Features Actuation System train) addressed in the NRC draft RAI. These two relays will continue to be tested on a quarterly surveillance interval.

There are no regulatory commitments contained within this letter.

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(1) Victor Nerses letter to James W. Clifford, "Millstone Nuclear Power Station, Unit 3, Facsimile Transmission, Draft Request for Additional Information (RAI) To Be Discussed In An Upcoming Conference Call (TAC No. MB1389)," dated May 15, 2001.

(2) Raymond P. Necci to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Technical Specification Change Request 3-1-01, Instrumentation - Engineered Safety Features Actuation System Instrumentation, Slave Relay Testing Surveillance Interval," dated March 2, 2001.

(3) Westinghouse Topical Report WCAP-13878-P-A, "Reliability Assessment of Potter & Brumfield MDR Series Relays," Revision 2, August 2000.

(4) Westinghouse Topical Report WCAP-13900, "Extension of Slave Relay Surveillance Test Intervals," Revision 0, April 1994.

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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, Vice President
Nuclear Technical Services - Millstone

Sworn to and subscribed before me

this 18 day of July, 2001

Donna Lynne Williams
Notary Public

My Commission expires Nov 30, 2001

Attachment (1)

cc: H. J. Miller, Region I Administrator
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3

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 Nuclear Power Station, Unit No. 3

Response to a Request for Additional Information Regarding
Potter & Brumfield MDR Series Relays

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NRC Request for Additional Information

NRC SER dated May 31, 1996, approving the WCAP-13878 Revision 1, requires licensees to perform "Contact loading" analyses for all P&B MDR relays which are candidates for surveillance extension. The licensee contact-loading-analysis for Millstone P&B MDR series slave and auxiliary relays determined that contact loading for two slave relays (one in each SSPS train) was 6.0 amps, which exceeds the relay's single contact rating of 0.3 amps @ 125 Vdc for inductive loads, and 0.8 amps @ 125 Vdc for resistive loads.

The licensee found this relay to be acceptable by reasoning that a breaker auxiliary contact in series with this relay contact will open the circuit in 3 cycles or in 50 milliseconds (ms)., and total energy (I2t) deposited by 6 amps during 50 ms. will be less than when the contact is subjected to a continuous duty of 10 amps @ 115 Vac. Also the licensee stated that for General Electric relay contacts, a typical difference between continuous-rating and the trip-rating is a factor of anywhere from 10 up to a factor of approximately 50, and a factor of 10 relative to the 0.8 amps P&B rating would support the relay trip coil load.

In regards to the above justification, the following additional information and or clarification is needed:

1. *We would like to see the applicable calculation for energy deposited. Please provide information for momentary-rating and continuous rating of relay contacts in question and confirm that the relay vendor (P&B) agrees with the energy-deposit-calculation results that 6 amps for the evaluated duration (before the circuit is de-energized by opening of breaker auxiliary contact) will not damage functional capability of relay-contacts considering the relay ambient conditions.*

2. *What means does the plant have to ensure that opening-time of the breaker-auxiliary-contact (in series with the MDR relay contact in question) will never exceed 3 cycles or 50 ms. any time.*

Response: The initial Dominion Nuclear Connecticut, Inc. (DNC) evaluation for inclusion of the K740A and K740B relays (one in each Engineered Safety Features Actuation System train) considered the specifics of the Millstone Unit No. 3 application (momentary contact loading) to be an acceptable basis for surveillance test interval extension. Upon further review and consideration, DNC has determined that this type of deviation is not addressed in WCAP-13878 or WCAP-13900 and therefore, DNC withdraws these relays from consideration. It is noted that these relays will continue to be tested on a quarterly surveillance interval.