

November 18, 2005

Mr. David A. Christian  
Senior Vice President and Chief Nuclear Officer  
Dominion Nuclear Connecticut, Inc.  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 3 - REQUEST FOR ADDITIONAL  
INFORMATION REGARDING USE OF ALTERNATE SOURCE TERM  
(TAC NO. MC3333)

Dear Mr. Christian:

By letter dated May 27, 2004, you requested an amendment to the Millstone Power Station, Unit No. 3 (MP3) Technical Specifications. The amendment would allow the use of an alternate source term for MP3.

The Nuclear Regulatory Commission staff is reviewing your application and has determined that additional information is required. The enclosed request for additional information (RAI) was forwarded electronically to Mr. Paul Willoughby of your staff on November 18, 2005. We request that you respond to this request within 30 days of the date of this letter. If you cannot respond within 30 days, please inform us in writing. If you do not respond within 30 days, it may result in the rejection of your application under the provisions of Title 10 of the *Code of Federal Regulations* Section 2.108. If you have any questions, I can be reached at (301) 415-1494.

Sincerely,

**/RA/**

George F. Wunder, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure: As stated

cc w/encl: See next page

Millstone Power Station, Unit No. 3

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Sincerely,

/RA/

George F. Wunder, Project Manager  
Plant Licensing Branch I-2  
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Office of Nuclear Reactor Regulation

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\*Memorandum dated October 20, 2005

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REQUEST FOR ADDITIONAL INFORMATION

MILLSTONE POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

USE OF ALTERNATE SOURCE TERM

By letter dated May 27, 2004, Dominion Nuclear Connecticut, Inc. requested an amendment to the Millstone Power Station, Unit No. 3 (MP3) Technical Specifications. The amendment would allow the use of an alternate source term for MP3.

The Nuclear Regulatory Commission (NRC) staff believes that MP3 wants to test to a higher penetration than that permitted by Regulatory Guide (RG) 1.52, Revision 2. The intent of using a safety factor of 2 as defined in Generic Letter (GL) 99-02 was not to permit use of degraded carbon adsorbers. Its purpose was to allow some additional margin in testing for those plants that were assuming the maximum value for efficiency for their carbon adsorbers, and were testing the filter efficiencies in accordance with American Society for Testing and Materials (ASTM) D-3803-1989. In RG 1.52, Revision 2, the assigned efficiency for a 2-inch bed filter is stated as 95 percent, and the test penetration criteria of 1 percent. Using the formula for safety factor, this would yield a safety factor of 5. GL 99-02 allowed a safety factor of 2 for those plants testing in accordance with ASTM D-3803-1989. The allowable penetration calculated by using a safety factor of 2 would be a test penetration of 2.5 percent. This increase in test penetration criteria was reflected in RG 1.52, Revision 3.

MP3 has chosen to use a lower assumed efficiency (i.e., 90 percent) for carbon adsorbers than the maximum that could be assumed (95 percent) since the lesser value produces acceptable analytical results in the design basis analysis. Then, on the basis of a safety factor of 2, MP3 is requesting that they be permitted to test the carbon adsorber in a degraded state (i.e., at 5 percent penetration).

The NRC staff has no information on how a degraded carbon adsorber would perform for the duration of a surveillance period or for the intended purpose of mitigating an event that required the use of the filters. All of the staff data on filter performance is based on efficiencies of 99 percent for 4-inch beds and 95 percent for 2-inch beds. At these efficiencies, there are many additional unused sites, and with a safety factor of 2, reasonable assurance exists that acceptable efficiency would be available at the end of the surveillance period and during a event that the filter could mitigate. If MP3 desires to test a higher penetration than that permitted in the RG, and thus use a degraded filter, the staff requests that MP3 provide sufficient data to assure that the filter will perform acceptably in the degraded state through the end of the surveillance period and for the event which requires mitigation.

Enclosure