



December 20, 2006

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

Serial No. 06-1078  
NL&OS/PRW R0  
Docket No. 50-336  
License No. DPR-65

**DOMINION NUCLEAR CONNECTICUT, INC.**  
**MILLSTONE POWER STATION UNIT 2**  
**SUPPLEMENT TO PROPOSED REVISION TO TECHNICAL**  
**SPECIFICATIONS (LBDCR 05-MP2-006) UPDATING LIST OF**  
**DOCUMENTS DESCRIBING THE ANALYTICAL METHODS**  
**SPECIFIED IN TECHNICAL SPECIFICATION 6.9.1.8 b**

In a letter dated January 26, 2006, Dominion Nuclear Connecticut, Inc. (DNC) requested an amendment to Operating License DPR-65 for Millstone Power Station Unit 2 (MPS2). The proposed amendment would modify Technical Specification 6.9.1.8.b to add Framatome Topical Report EMF-92-116(P)(A) to the list of approved analytical methods used to determine the core operating limits. The license amendment request also corrects a typographical error in TS 5.3.1, "Reactor Core, Fuel Assembly," which was introduced in the retyped pages provided to the NRC for issuance of Amendment No. 280, dated September 25, 2003.

DNC has determined that a statement provided in the original submittal of January 26, 2006, can not be substantiated. Accordingly, DNC requests that Paragraph 1, "Technical Specification 6.9.1.8 b," under Section 4.1, "Details of the Proposed Amendment," be deleted and replaced with the wording provided in Attachment 1 of this letter. DNC has entered this discrepancy into its corrective action program for evaluation and remediation.

In a conference call of December 12, 2006, the NRC requested that DNC provide additional information regarding Topical Report EMF-92-116(P)(A) to aid the NRC staff in its review of DNC's proposed amendment. Attachment 2 of this letter provides the information requested.

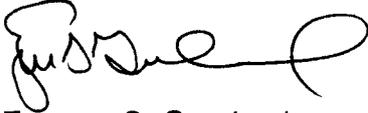
The additional information provided in this letter does not affect the conclusions of the safety summary and significant hazards consideration discussion in DNC's submittal of January 26, 2006.

In accordance with 10 CFR 50.91(b), a copy of this license amendment request is being provided to the State of Connecticut.

There are no regulatory commitments contained in this letter.

Should you have additional questions or require further information, please contact Mr. Paul R. Willoughby at (804) 273-3572.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Eugene S. Grecheck', with a large, stylized flourish at the end.

Eugene S. Grecheck  
Vice President – Nuclear Support Services

Attachments: (2)

1. Revised Wording
2. Supplemental Information

cc: U.S. Nuclear Regulatory Commission  
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COMMONWEALTH OF VIRGINIA    )  
  )  
COUNTY OF HENRICO            )

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck, who is Vice President – Nuclear Support Services, of Dominion Nuclear Connecticut, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 20<sup>TH</sup> day of December, 2006.

My Commission Expires: May 31, 2010.

Vicki L. Huel  
Notary

(SEAL)

**ATTACHMENT 1**

**PROPOSED REVISION TO TECHNICAL  
SPECIFICATIONS (LBDCR 05-MP2-006) UPDATING LIST OF  
DOCUMENTS DESCRIBING THE ANALYTICAL METHODS  
SPECIFIED IN TECHNICAL SPECIFICATION 6.9.1.8 b**

**REVISED WORDING**

**DOMINION NUCLEAR CONNECTICUT, INC.  
MILLSTONE POWER STATION UNIT 2**

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**REVISED WORDING**

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DNC has determined that a statement provided in the original submittal of January 26, 2006, can not be substantiated. Accordingly, DNC requests that Paragraph 1, "Technical Specification 6.9.1.8 b," under Section 4.1, "Details of the Proposed Amendment," be deleted as indicated below and replaced with the wording provided. DNC has entered this discrepancy into its corrective action program for evaluation and remediation.

4.0 TECHNICAL ANALYSIS

4.1 Details of the Proposed Amendment

1. Technical Specification 6.9.1.8 b:

**DELETE THE FOLLOWING WORDING**

The proposed change is to add a new document (No. 16) to TS 6.9.1.8 b, which complements the list of documents used to determine the core operating limits. These documents have been reviewed and approved by the NRC. The addition of this document was recommended by Framatome-ANP.

It was stated by Framatome-ANP that the addition of this reference is not a requirement since EMF-92-116(P)(A) is referenced by other documents that are currently listed in TS 6.9.1.8 b. However, the Framatome-ANP recommendation to explicitly include this document as a reference is considered an enhancement to the TS 6.9.1.8 b list.

The topical report EMF-92-116(P)(A) defines the mechanical design acceptance criteria used in evaluating changed or new fuel designs. The mechanical design acceptance criteria are consistent with Section 4.2 of the Standard Review Plan, which defines the specified acceptable fuel design limits. The mechanical design analyses results are compared to the acceptance criteria defined in this topical report to demonstrate acceptable performance of the fuel design. The limits defined in the Core Operating Limits Report (COLR) are supported, in part, by these analyses.

**INSERT THE FOLLOWING WORDING**

The proposed change is to add a new document (No. 16) to TS 6.9.1.8 b, which complements the list of documents used to determine the core operating limits. These documents have been reviewed and approved by the NRC. The addition of this document was recommended by Framatome-ANP.

Topical Report EMF-92-116(P)(A) has also been approved by the NRC and is used by AREVA (previously Framatome) to support the fuel design for each Millstone Power Station Unit 2 reload. This report specifies the criteria that are used to demonstrate adequate performance of the fuel in the neutronic, mechanical, thermal-hydraulic and safety analysis areas (Chapter 4 of the Standard Review Plan). The criteria specified in this topical report are addressed in AREVA's reload analysis. Also, fuel mechanical design reports prepared by AREVA are structured around this topical report.

As stated above, Topical Report EMF-92-116(P)(A) defines the mechanical design acceptance criteria used in evaluating changed or new fuel designs. The mechanical design acceptance criteria are consistent with Section 4.2 of the Standard Review Plan, which defines the specified acceptable fuel design limits. The mechanical design analyses results are compared to the acceptance criteria defined in this topical report to demonstrate acceptable performance of the fuel design. The limits defined in the Core Operating Limits Report (COLR) are supported, in part, by these analyses.

Finally, EMF-92-116(P)(A) assures that fuel design changes are appropriately evaluated and limits the changes that may be made without additional NRC review and approval.

**ATTACHMENT 2**

**PROPOSED REVISION TO TECHNICAL  
SPECIFICATIONS (LBDCR 05-MP2-006) UPDATING LIST OF  
DOCUMENTS DESCRIBING THE ANALYTICAL METHODS  
SPECIFIED IN TECHNICAL SPECIFICATION 6.9.1.8 b**

**SUPPLEMENTAL INFORMATION**

**DOMINION NUCLEAR CONNECTICUT, INC.  
MILLSTONE POWER STATION UNIT 2**

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**SUPPLEMENTAL INFORMATION**

In a conference call of December 12, 2006, the NRC requested that DNC provide additional information regarding Topical Report EMF-92-116(P)(A) to aid the NRC staff in its review of DNC's proposed amendment. The remainder of this attachment provides the information requested.

**NRC Question 1:**

Provide an explicit statement that Topical Report EMF-92-116(P)(A) is applicable to the fuel in question, and to Millstone Unit 2 fuel, in particular.

**DNC Response:**

Topical Report EMF-92-116(P)(A) is applicable to pressurized water reactors in general and to Millstone Unit 2 specifically.

Page 1-1 of the topical report states, "The purpose of this report is to present for NRC review and acceptance the generic mechanical design criteria for Siemens Power Corporation (SPC) PWR fuel designs." The fuel currently provided to Millstone Unit 2 by AREVA is of the SPC High Thermal Performance (HTP) design that has been provided starting with Cycle 15. In its SER approving the topical report the NRC stated, "The staff has reviewed the SPC's PWR fuel mechanical design criteria described in EMF-92-116(P), and finds that the design criteria are acceptable for PWR licensing applications..."

Additionally, Topical Report EMF-92-116(P)(A) is referenced in ANP-2515(P), Revision 0, "PWR Fuel Design Criteria Review for Millstone Unit 2 Reload MIB-9 and Cycle 18 Assemblies," that supports the current fuel cycle (Cycle 18).

**NRC Question 2:**

Identify any conditions or limitations made by the NRC in its approval of Topical Report EMF-92-116(P)(A) and show how Millstone Unit 2 complies with those conditions and limitations.

**DNC Response:**

There are two conditions placed on the approval of EMF-92-116(P)(A) by the NRC SER.

The first condition is:

"The criteria are applicable up to a maximum fuel rod burnup of 62 GWd/MTU."

The cycle-specific design report is ANP-2515(P), Revision 0, "PWR Fuel Design Criteria Review for Millstone Unit 2 Reload MIB-9 and Cycle 18 Assemblies," and this report states on Page 2-1 that the fuel mechanical design criteria are satisfied for the MIB-9 (Cycle 18) fuel design up to a peak rod average exposure of 62 GWd/MTU.

The second condition is:

"For each application of the mechanical design criteria, SPC must document the design evaluation process demonstrating conformance to these criteria and submit a summary of the evaluation to the NRC staff for possible use in an audit to confirm that SPC is in compliance with these criteria."

AREVA NP interprets this requirement to apply only to generic evaluations of new fuel designs that are independent of a specific plant and/or cycle, and not to design evaluations for specific plant cycles which are performed to demonstrate compliance to the criteria in EMF-92-116(P)(A). This interpretation was accepted by the NRC in a letter to James F. Mallay (AREVA NP) from Stuart A. Richards (NRC) dated 11/03/2000 (Accession Number ML003767005).