



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

February 10, 2015

EA-14-126

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
5000 Dominion Blvd.
Glen Allen, VA 23060-6711

**SUBJECT: MILLSTONE POWER STATION UNITS 2 AND 3 - NOTICE OF VIOLATION
AND EXERCISE OF ENFORCEMENT DISCRETION - NRC INSPECTION
REPORT NOS. 05000336/2015008 AND 05000423/2015008**

Dear Mr. Heacock:

This letter provides you the U.S. Nuclear Regulatory Commission's (NRC) enforcement decision for the apparent violation identified during a special inspection conducted on June 2, 2014, through July 15, 2014, at the Dominion Nuclear Connecticut, Inc. (Dominion) Millstone Nuclear Power Station (Millstone). The special inspection was conducted in response to the May 25, 2014, dual-unit reactor trip and loss of offsite power event. The apparent violation, which involved Dominion making a change to the Millstone facility without completing an evaluation required by Title 10 of the Code of Federal Regulations (10 CFR) 50.59 and without obtaining prior NRC approval, was discussed during an exit meeting conducted on July 15, 2014, with Mr. Matt Adams, Plant Manager, and other Dominion staff. The apparent violation was also described in the NRC inspection report accompanying our letter dated August 28, 2014 (ML14240A006¹).

In the letter transmitting the inspection report, we provided you with the opportunity to address the apparent violations identified in the report by either attending a predecisional enforcement conference, by providing a written response, or requesting Alternative Dispute Resolution, before we made our final enforcement decision. We requested additional information from Dominion regarding why its staff did not conduct the 10 CFR 50.59 evaluation and how future corrective actions would prevent similar situations. In a letter dated October 14, 2014 (ML14288A481), you provided a response to the apparent violation that included a description of the corrective steps taken to address and prevent recurrence.

¹ Designation in parentheses refers to an Agency-wide Documents Access and Management System (ADAMS) accession number. Documents referenced in this letter are publicly-available using the accession number in ADAMS.

Based on the information developed during the inspection and that you provided in your October 14, 2014, letter, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. Specifically, on December 20, 2012, Dominion removed the Millstone severe line outage detection (SLOD) special protection system without completing a 10 CFR 50.59 evaluation and without submitting the proposed change to the NRC for review and approval. The SLOD system was described in the Millstone Unit 2 and Unit 3 Updated Final Safety Analysis Reports (UFSAR) Sections 8.1 and 8.2, respectively, as being credited for meeting the requirements of General Design Criterion 17 such that the system would protect a single transmission line during potential grid instability conditions, and would ensure the availability of the offsite power to both units.

The SLOD system was owned by the transmission system owner (Northeast Utilities (NU)). This system was removed after NU and Dominion determined that the modifications implemented to Millstone's transmission lines negated its need. Prior to the removal of SLOD, Dominion completed a 10 CFR 50.59 screening for the change, and concluded that a full 10 CFR 50.59 evaluation was not required. The NRC concluded that, with the removal of SLOD, the facility no longer met the offsite power description in the UFSAR and, therefore, the change required a full 10 CFR 50.59 evaluation (and, likely, prior NRC approval) before implementation.

Dominion's failure to complete a 10 CFR 50.59 evaluation and obtain Commission approval prior to implementing the removal of SLOD impacted the NRC's ability to perform its regulatory function. In accordance with the NRC Enforcement Policy, the significance of the 10 CFR 50.59 violation was characterized at Severity level (SL) III in the traditional enforcement process based on a greater than low-moderate consequence and overall safety significance of the May 25, 2014 event. If SLOD was installed or if the licensee had taken actions to appropriately limit combined unit output, both units would have been protected against a situation which resulted in only a single line of off-site power available. However, since SLOD was removed and station output was not limited, that protection was lost and the result was a dual-unit loss of off-site power (LOOP) which required the proper operation of emergency AC power. The conditional core damage probability given a grid related LOOP at each unit was in the range of $1E-5$, as documented in Inspection Report numbers 05000336/2014011 and 05000423/2014011.

In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$70,000 was considered for a SL III violation. Because Millstone has not been the subject of escalated traditional enforcement action within the last two years or two inspections, the NRC considered only whether credit was warranted for Corrective Action in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. Dominion's corrective actions taken to address the failure to conduct a full 10 CFR 50.59 evaluation when one was required included conducting a root cause evaluation, revising procedural guidance, providing training, and completing an extent of condition review. With regards to the above, the NRC concluded that these actions were adequate to address the implementation of the 10 CFR 50.59 review process.

Dominion has also initiated corrective actions to address the discrepancy with the UFSAR facility description as a result of Millstone no longer having SLOD in place. Initial actions included conducting an immediate operability determination and issuing interim guidance for operator actions that provide similar protection to SLOD. The NRC has determined that these

initial actions promptly addressed any technical impact of the removal of SLOD. However, the NRC acknowledges that correcting the discrepancy with the UFSAR will entail significant technical evaluation and coordination with NU and other entities, and warrant additional time to finalize the plan. In a telephone conversation between Ray McKinley, Chief, NRC Region I Division of Reactor Projects Branch 5, and Lori Armstrong of your staff on October 29, 2014, your staff committed to notifying the NRC no later than March 31, 2015, regarding Dominion's plan and schedule for correcting the licensing basis discrepancy.

The NRC Enforcement Policy provides the Commission's Policy to the staff for considering whether a licensee's response to a violation of 10 CFR 50.59 warrants corrective action credit. Specifically, Section 2.3.4 of the Enforcement Policy states that corrective actions for a violation of 10 CFR 50.59 would normally be considered prompt and comprehensive only if the licensee makes a prompt decision on operability and either makes a prompt evaluation under 10 CFR 50.59 or promptly initiates corrective actions to restore the facility to its original configuration. Of the two criteria identified to address the facility change, one should be satisfied to generally consider the licensee's corrective actions to be prompt and comprehensive. In this instance, until the plan for correcting the licensing basis discrepancy is finalized, the staff cannot determine whether either criterion is satisfied and therefore the staff is unable to conclude that corrective action credit is warranted. However, in light of the technical evaluations and offsite coordination necessary to resolve the issue, the staff has concluded that the licensee's actions to date are reasonable for the circumstances surrounding this violation.

Therefore, based on the licensee's corrective actions to date, the technical complexities of resolving this issue, and in recognition of the absence of previous escalated enforcement action, after consultation with the Director, Office of Enforcement, I have been authorized to exercise enforcement discretion in accordance with Section 3.5 of the Enforcement Policy and refrain from proposing a civil penalty in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of any SL III violation constitutes escalated enforcement action that may subject you to increased inspection effort.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. Your response, as noted above, should include Dominion's plan and schedule for correcting the licensing basis discrepancy and should be received no later than March 31, 2015. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response, if you choose to provide one, should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request

withholding of such information, you must specifically identify the portions of your response that you seek to have withheld, and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>).

Sincerely,

/RA Original Signed by/

Daniel H. Dorman
Regional Administrator

Docket Nos. 50-336, 50-423
License Nos. DPR-65, NPF-49

Enclosure: As stated

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ADAMS Document Accession No.: ML15041A162

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DATE	1/21/2015		1/13/2015	1/15/2015	1/15/2015	1/20/2015
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NAME	B Klukan/BMK*	B Bickett/BAB*	C Faria via email	L Casey via email	D Dorman/DHD*	
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* See previous concurrence page OFFICIAL RECORD COPY

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NOTICE OF VIOLATION

Dominion Nuclear Connecticut, Inc.
Millstone Power Station

Docket Nos. 50-336, 50-423
License Nos. DPR-65, NPF-49
EA-14-126

During an NRC special inspection conducted between June 2, 2014, and July 15, 2014, which included an on-site inspection as well as an in-office review, for which an exit meeting was conducted on July 15, 2014, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 CFR 50.59, "Changes, Tests, and Experiments," Section (c)(2)(ii) requires, in part, that a licensee shall obtain a license amendment pursuant to 10 CFR 50.90 prior to implementing a proposed change if the change would result in more than a minimal increase in the likelihood of occurrence of a malfunction of a system, structure, or component (SSC) important to safety previously evaluated in the final safety analysis report (as updated).

10 CFR 50.59(d)(1) requires, in part, that a licensee shall maintain records of changes in the facility made pursuant to paragraph (c) of this section. These records must include a written evaluation which provides the bases for the determination that the change does not require a license amendment pursuant to paragraph (c)(2) of this section.

Contrary to the above, on December 20, 2012, Dominion failed to obtain a license amendment pursuant to 10 CFR 50.90, prior to implementing a change that resulted in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety previously evaluated in the UFSAR. Specifically, Dominion allowed a design change to the offsite power system (removal of the severe line outage detection system (SLOD), a system described in the UFSAR), and failed to conduct a written evaluation or provide a basis for the determination that the change did not require a license amendment in accordance with 10 CFR 50.59 (c)(2). The change may have resulted in more than a minimal increase in the likelihood of occurrence of an offsite power malfunction such that the removal of SLOD decreased the reliability of the offsite power system, reduced the defense-in-depth, and disabled an automatic generator rejection function, which protected the offsite power sources during transients caused by grid-related conditions. The removal contributed to the likelihood of a dual-unit trip and loss of offsite power to both units.

This is a Severity Level III violation (Enforcement Policy Section 2.2.2).

Pursuant to the provisions of 10 CFR 2.201, Dominion is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, and a copy to the NRC Resident Inspector at Millstone Power Station no later than March 31, 2015. This reply should be clearly marked as a "Reply to a Notice of Violation; EA-14-126" and should include Dominion's plan and schedule for correcting the licensing basis discrepancy. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other

action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, and a copy to the NRC Resident Inspector at the Millstone Power Station.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 10th day of February, 2015