



August 23, 2013

Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Serial No.: 12-165C
NL&OS/MAE: R1
Docket Nos.: 50-336/423
License Nos.: DPR-65
NPF-49

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 2 AND 3
SIX-MONTH STATUS REPORT IN RESPONSE TO MARCH 12, 2012 COMMISSION
ORDER MODIFYING LICENSES WITH REGARD TO RELIABLE SPENT FUEL POOL
INSTRUMENTATION (ORDER NUMBER EA-12-051)

References:

1. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012
2. NRC Interim Staff Guidance JLD-ISG-2012-03, Compliance with Order EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, Revision 0, dated August 29, 2012
3. NEI 12-02, Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation", Revision 1, dated August 2012
4. Dominion Nuclear Connecticut, Inc.'s Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated October 25, 2012 (Serial No. 12-165A)
5. Dominion Nuclear Connecticut, Inc.'s Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated February 28, 2013 (Serial No. 12-165B)
6. Dominion Nuclear Connecticut, Inc.'s March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), Request for Additional Information (RAI) Response dated July 26, 2013 (Serial No. 13-385)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an order (Reference 1) to Dominion Nuclear Connecticut, Inc. (DNC). Reference 1 was immediately effective and directs DNC to install reliable spent fuel pool level instrumentation. Specific requirements are outlined in Attachment 2 of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided DNC's initial status report regarding mitigation strategies, Reference 5 provided DNC's overall integrated plan, and Reference 6 provided a response to a request for additional information (RAI).

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Millstone Power Station

Attachment 1

**Six Month Status Report for the Implementation of Order EA-12-051, Order
Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool
Instrumentation**

**Millstone Power Station Unit 2
Dominion Nuclear Connecticut, Inc.**

Six Month Status Report for the Implementation of Order EA-12-051

1 Introduction

Dominion Nuclear Connecticut, Inc. (DNC) developed an Overall Integrated Plan (Reference 1) documenting the requirements to install reliable spent fuel pool level instrumentation (SFP LI), in response to Order EA-12-051 (the Order) (Reference 2). This attachment provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2 Milestone Accomplishments

The following milestones have been completed since the development of the Overall Integrated Plan, and are current as of July 31, 2013.

- Submit Overall Integrated Plan
- Commence Engineering and Design

3 Milestone Schedule Status

The following provides an update to milestone schedule to support the Overall Integrated Plan. This section provides the activity status of each item, and the expected completion date noting any change. The dates are planning dates subject to change as design and implementation details are developed.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit Overall Integrated Plan	Feb 2013	Complete	
Commence Engineering and Design	March 2013	Complete	
Complete Engineering and Design	September 2013	Started	December 2013
Complete Procurement of SFP Instruments	December 2013	Started	May 2014
Commence Installation of SFP Instruments	June 2014	Not Started	
Level Measurement System Functional	September 2014	Not started	

The revised milestone target completion dates do not impact the Order implementation date for Millstone Power Station Unit 2.

4 Changes to Compliance Method

By letter dated February 28, 2013, Serial No. 12-165B, DNC provided an Overall Integrated Plan (OIP) to address reliable SFP level instrumentation at Millstone Power Station Unit 2 as required by the Order. By letter dated June 26, 2013, Serial No. 13-385, Mr. James Kim, the NRC Project Manager for Millstone Power Station, provided a Request for Additional

Information (RAI) to Mr. David Heacock, President and Chief Nuclear Officer of Dominion, regarding the Millstone SFP LI system OIP. By letter dated July 26, 2013, Serial No. 13-385, Dominion submitted the response to the RAI (Reference 3).

The following are changes to the information provided in the Millstone Unit 2 OIP and supplemented by the Millstone Unit 2 RAI (Reference 3). These changes do not alter Dominion's compliance method with NEI 12-02.

- a) The SFP LI system continues to utilize Guided Wave Radar technology; however, the level sensor manufacturer has changed. Accordingly, there are design and installation configuration differences from those originally indicated in the OIP and the RAI response letter. Further details of the probe design and installation will be available upon completion of the final design, scheduled to be completed by December 2013 (see Milestone status table, Section 3), and will be forwarded to the NRC during the February 2014 six month status update. Subsequently, completion of procurement of the SFP instruments has been rescheduled to May 2014.
- b) As indicated in the response to RAI 1a, the formal calculation performed to verify that adequate water level is available to support net positive suction head (NPSH) has been completed and independently reviewed. Results of the calculation confirm the Level 1 value of 35.8 feet specified in RAI response letter is HIGHER than the minimum NPSH value of 16.75 feet (Reference 4).

5 Need for Relief/Relaxation and Basis for the Relief/Relaxation

DNC expects to comply with the order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and Draft Safety Evaluation

No update is required since there were no open items identified in the Overall Integrated Plan submittal and the Draft Safety Evaluation has not been issued.

7 Potential Draft Safety Evaluation Impacts

There are no potential impacts to the Draft Safety Evaluation identified at this time.

8 References

The following references support the updates to the Overall Integrated Plan described in this attachment:

1. "Dominion Nuclear Connecticut, Inc's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013.
2. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012.

3. "March 12, 2012 Commission Order Modifying Licenses With Regard To Requirements for Reliable Spent Fuel Pool Instrumentation (Order number EA-12-051) Response to Request for Additional Information (RAI)," Serial No. 13-385 dated July 26, 2013.
4. Calculation CALC-MISC-11798, Rev. 0, Add 0, "Dominion Fleet Spent Fuel Pool Levels to Provide Adequate NPSH to the Cooling Pumps with a Saturated Pool".

Attachment 2

**Six Month Status Report for the Implementation of Order EA-12-051, Order
Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool
Instrumentation**

Millstone Power Station Unit 3

Dominion Nuclear Connecticut, Inc.

Six Month Status Report for the Implementation of Order EA-12-051

1 Introduction

Dominion Nuclear Connecticut, Inc. (DNC) developed an Overall Integrated Plan (Reference 1) documenting the requirements to install reliable spent fuel pool level instrumentation (SFP LI), in response to Order EA-12-051 (the Order) (Reference 2). This attachment provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2 Milestone Accomplishments

The following milestones have been completed since the development of the Overall Integrated Plan, and are current as of July 31, 2013.

- Submit Overall Integrated Plan
- Commence Engineering and Design

3 Milestone Schedule Status

The following provides an update to milestone schedule to support the Overall Integrated Plan. This section provides the activity status of each item, and the expected completion date noting any change. The dates are planning dates subject to change as design and implementation details are developed.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit Overall Integrated Plan	Feb 2013	Complete	
Commence Engineering and Design	March 2013	Complete	
Complete Engineering and Design	September 2013	Started	December 2013
Complete Procurement of SFP Instruments	December 2013	Started	May 2014
Commence Installation of SFP Instruments	June 2014	Not Started	
Level Measurement System Functional	September 2014	Not started	

The revised milestone target completion dates do not impact the order implementation date for Millstone Power Station Unit 3.

4 Changes to Compliance Method

By letter dated February 28, 2013, Serial No. 12-165B, DNC provided an Overall Integrated Plan (OIP) to address reliable SFP level instrumentation at Millstone Power Station Unit 3 as required by the Order. By letter dated June 26, 2013, Serial No. 13-385, Mr. James Kim, the NRC Project Manager for Millstone Power Station, provided a Request for Additional

Information (RAI) to Mr. David Heacock, President and Chief Nuclear Officer of Dominion, regarding the Millstone SFP LI system OIP. By letter dated July 26, 2013, Serial No. 13-385, Dominion submitted the response to the RAI (Reference 3).

The following are changes to the information provided in the Millstone Unit 3 OIP and supplemented by the Millstone Unit 3 RAI (Reference 3). These changes do not alter Dominion's compliance method with NEI 12-02.

- a. The SFP LI system continues to utilize Guided Wave Radar technology; however, the level sensor manufacturer has changed. Accordingly, there are design and installation configuration differences from those originally indicated in the OIP and the RAI response letter. Further details of the probe design and installation will be available upon completion of the final design, scheduled to be completed by December 2013 (see Milestone status table, Section 3), and will be forwarded to the NRC during the February 2014 six month status update. Subsequently, completion of procurement of the SFP instruments has been rescheduled to May 2014.
- b. As indicated in the response to RAI 1b, the formal calculation performed to verify that adequate water level is available to support net positive suction head (NPSH) has been completed and independently reviewed. Results of the calculation, confirm the Level 1 value of 46.8 feet specified in RAI response letter is HIGHER than the minimum NPSH value of 46.7 feet (Reference 4).

5 Need for Relief/Relaxation and Basis for the Relief/Relaxation

DNC expects to comply with the order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and Draft Safety Evaluation

No update is required since there were no open items identified in the Overall Integrated Plan submittal and the Draft Safety Evaluation has not been issued.

7 Potential Draft Safety Evaluation Impacts

There are no potential impacts to the Draft Safety Evaluation identified at this time.

8 References

The following references support the updates to the Overall Integrated Plan described in this attachment.

1. "Dominion Nuclear Connecticut, Inc's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 28, 2013.
2. NRC Order Number EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012.

3. "March 12, 2012 Commission Order Modifying Licenses With Regard To Requirements for Reliable Spent Fuel Pool Instrumentation (Order number EA-12-051) Response to Request for Additional Information (RAI)," Serial No. 13-385 dated July 26, 2013.
4. Calculation CALC-MISC-11798, Rev. 0, Add 0, "Dominion Fleet Spent Fuel Pool Levels to Provide Adequate NPSH to the Cooling Pumps with a Saturated Pool".