

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

August 23, 2013

10 CFR 2.202
EA-12-051

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

Serial No.: 12-166D
NL&OS/MAE: R2
Docket Nos.: 50-338/339
License Nos.: NPF-4/7

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
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. Virginia Electric and Power Company'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. 12-166A)
5. Virginia Electric and Power Company'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. 12-166B)
6. Virginia Electric and Power Company'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 2, 2013 (Serial No. 12-166C)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an order (Reference 1) to Virginia Electric and Power Company (Dominion). Reference 1 was immediately effective and directs Dominion 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.

ADD
NRR

cc: Director of Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 13H16M
11555 Rockville Pike
Rockville, MD 20852-2738

U. S. Nuclear Regulatory Commission, Region II
Regional Administrator
Marquis One Tower
245 Peachtree Center Ave., NE
Suite 1200
Atlanta, Georgia 30303-1257

Dr. V. Sreenivas
NRC Project Manager North Anna
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop O8 G-9A
11555 Rockville Pike
Rockville, MD 20852-2738

Ms. K. R. Cotton Gross
NRC Project Manager Surry
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop O8 G-9A
11555 Rockville Pike
Rockville, MD 20852-2738

Ms. J. A. Kratchman
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop O9 D2
11555 Rockville Pike
Rockville, MD 20852-2738

NRC Senior Resident Inspector
North Anna Power Station

Mr. J. E. Reasor, Jr.
Old Dominion Electric Cooperative
Innsbrook Corporate Center, Suite 300
4201 Dominion Blvd.
Glen Allen, Virginia 23060

Attachment

**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**

**North Anna Power Station Units 1 and 2
Virginia Electric and Power Company (Dominion)**

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

1 Introduction

Dominion developed an Overall Integrated Plan (OIP) (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 OIP 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 OIP and are current as of July 31, 2013.

- Submit OIP
- Commence Engineering and Design

3 Milestone Schedule Status

The following table provides an update to the milestone schedule supporting the OIP. This table provides the activity status of each item and the expected completion date noting any change. The target completion dates are subject to change as design and implementation details are developed.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit OIP	February 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	March 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 North Anna Power Station.

4 Changes to Compliance Method

By letter dated February 28, 2013, Dominion provided an OIP to address reliable SFP LI at North Anna Power Station Units 1 and 2 as required by the Order (Reference 1). On May 28, 2013, Dr. V. Sreenivas, the NRC Project Manager for North Anna Power Station, provided a Request for Additional Information (RAI) in an email to Mr. David Heacock, President and Chief Nuclear Officer of Dominion, regarding the North Anna SFP LI system OIP. By letter dated July 2, 2013, Dominion submitted its response to the RAI (Reference 3).

The following are changes to the information provided in the North Anna OIP as supplemented by the North Anna RAI response. These changes do not alter Dominion's compliance method with NEI 12-02.

- a) The location of the display units provided in the RAI response was based on conceptual design information and indicated that the display units would be located in the Cable Spreading Room in the Service Building. The location indicated in the RAI response is being updated to indicate that the display units are now being relocated to within the boundary of the Main Control Room. Final design details are still scheduled to be completed by December 2013 (see Milestone status table, Section 3) and will be forwarded to the NRC in the February 2014 six month status update.
- b) 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. 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 in the February 2014 six month status update. Completion of procurement of the SFP instruments has been rescheduled to May 2014.
- c) As discussed in an August 6, 2013, teleconference between Dr. V. Sreenivas of the NRC and Ms. Margaret Earle of Dominion, 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 286.6 feet specified in the RAI response is HIGHER than the minimum NPSH value of 284.4 feet (Reference 4).

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

Dominion 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 OIP 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 OIP described in this attachment:

1. "Dominion'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)," Serial No. 12-166B, 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. 12-166C, dated July 2, 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".