#### August 24, 2015

10 CFR 2.202 EA-12-049

A151

Attention: Document Control Desk U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001 Serial No.: 14-395C NL&OS/DEA: R1 Docket No.: 50-281 License No.: DPR-37

### VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION UNIT 2 FIFTH SIX-MONTH STATUS REPORT IN RESPONSE TO MARCH 12, 2012 COMMISSION ORDER MODIFYING LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS (ORDER NUMBER EA-12-049)

References:

- 1. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012
- 2. Virginia Electric and Power Company's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 28, 2013 (Serial No. 12-163B)
- 3. Virginia Electric and Power Company's Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated March 2, 2015 (Serial No. 14-395A)
- Virginia Electric and Power Company's Status of Required Action for EA-12-049 Issuance of Order To Modify Licenses With Regard to Requirements For Mitigation Strategies For Beyond-Design-Basis External Events, dated July 22, 2015 (Serial No. 14-395B)

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 directed Dominion to develop, implement, and maintain guidance and strategies to maintain core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event.

Serial No. 14-395C Docket Nos. 50-281 Six-Month Status Report - Order EA-12-049 Page 2 of 3

Reference 1 required submission of an Overall Integrated Plan (OIP) (Reference 2) pursuant to Section IV, Condition C. Reference 1 also required submission of a status report at six-month intervals following submittal of the OIP.

The attachment to this letter provides the fifth six-month status report and an update of milestone accomplishments since the submittal of the previous six-month status report (Reference 3), including any changes to the compliance method, schedule, or need for relief and the basis. This update is applicable to Surry Unit 2 only. Surry Unit 1 has completed the Order requirements and has reported compliance to the Commission. (Reference 4).

If you have any questions, please contact Ms. Diane E. Aitken at (804) 273-2694.

Sincerely,

Mark D. Sartain Vice President Nuclear Engineering

Attachment (1)

Commitments made by this letter: No new Regulatory Commitments

COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Mark D. Sartain who is Vice President Nuclear Engineering of Virginia Electric and Power Company. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of the Company, and that the statements in the document are true to the best of his knowledge and belief.

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Acknowledged before me this day of <u>Hugust</u> , 2015. My Commission Expires: Vicki L. Hull **NOTARY PUBLIC** Commonwealth of Virginia (SEAL) Reg. # 140542 My Commission Expires May 31, 2018

Serial No. 14-395C Docket No. 50-281 Six-Month Status Report - Order EA-12-049 Page 3 of 3

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NRC Senior Resident Inspector Surry Power Station

Serial No. 14-395C Docket No. 50-281 Order EA-12-049

## Attachment

## Six-Month Status Report for the Implementation of Order EA-12-049 Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

August 2015

**Surry Power Station Unit 2** 

Virginia Electric and Power Company (Dominion)

Serial No. 14-395C Docket No. 50-281 Order EA-12-049 Attachment Page 1 of 5

## Six-Month Status Report for the Implementation of Order EA-12-049 Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

## 1 Introduction

Dominion developed an Overall Integrated Plan (OIP) (Reference 1) documenting the diverse and flexible strategies (FLEX) for Surry Power Station (Surry) in response to NRC Order Number EA-12-049 (Reference 2). This attachment provides an update of milestone accomplishments and open items since submittal of the last status report (Reference 3), including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any. This update is applicable to Surry Unit 2 only. Surry Unit 1 has completed the requirements of Order EA 12-049 and has reported compliance to the Commission (Reference 4).

## 2 Milestone Accomplishments

The following milestones have been completed since the development of the OIP and are current as of July 31, 2015.

- Submit OIP
- Develop Strategies
- Develop Modifications
- Implement Unit 1 Modifications
- Develop Training Plan
- Implement Training
- Issue FSGs and Associated Procedure Revisions
- Develop Strategies/Contract with NSRC
- Purchase Equipment
- Receive Equipment
- Validation Walk-throughs or Demonstrations of FLEX Strategies and Procedures
- Create Maintenance Procedures
- Unit 1 Outage Implementation

# 3 Milestone Schedule Status

The following table provides an update to Attachment 2A of the OIP. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

The revised milestone target completion dates for 'Implement Unit 2 Modifications' and 'Unit 2 Outage Implementation' do not impact the Order implementation for Surry Unit 2, but simply reflect a revision to the Surry Unit 2 Fall 2015 Refueling Outage scheduled completion date.

Serial No. 14-395C Docket No. 50-281 Order EA-12-049 Attachment Page 2 of 5

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit Overall Integrated Plan	February 2013	Complete	
Develop Strategies	October 2013	Complete	
Develop Modifications	December 2014	Complete	
Implement Unit 1 Modifications	May 2015	Complete	
Implement Unit 2 Modifications	November 2015	Started	December 2015
Develop Training Plan	April 2014	Complete	
Implement Training	August 2014	Complete	
Issue FSGs and Associated Procedure Revisions	December 2014	Complete	
Develop Strategies/Contract with NSRC	August 2014	Complete	
Purchase Equipment	February 2014	Complete	
Receive Equipment	November 2014	Complete	
Validation Walk-throughs or Demonstrations of FLEX Strategies and Procedures	December 2014	Complete	
Create Maintenance Procedures	August 2014	Complete	
Unit 1 Outage Implementation	April 2015	Complete	
Unit 2 Outage Implementation	November 2015	Not Started	December 2015

# 4 Changes to Compliance Method

By letter dated February 28, 2013, Dominion provided an OIP to address Beyond-Design-Basis (BDB) events at Surry Units 1 and 2 (Reference 1) as required by Order Number EA-12-049, dated March 12, 2012 (Reference 2). The first, second, third, and fourth Six-Month Status Report of the OIP for Surry were provided by letters dated August 23, 2013 (Reference 5), February 27, 2014 (Reference 6), August 28, 2014 (Reference 7), and March 2, 2015 (Reference 3), respectively.

There have been no changes to the compliance method information provided in the Surry OIP and subsequent updates previously reported.

Serial No. 14-395C Docket No. 50-281 Order EA-12-049 Attachment Page 3 of 5

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

Dominion expects to comply with the Order implementation date and no required relief/relaxation has been identified at this time.

#### 6 Open Items

## 6.1 Open Items from Overall Integrated Plan

Licensee Identified Open Items have been completed as described in either the Surry Final Audit Report (Reference 9) or the Surry Unit 1 Compliance letter for Order EA-12-049 (Reference 4).

## 6.2 Open Items from the Interim Staff Evaluation (ISE)

The Interim Staff Evaluation (ISE) Open Items for Surry (Reference 8) have been completed for both Surry Unit 1 and Unit 2 as described in the Surry Unit 1 Compliance letter for Order EA-12-049 (Reference 4).

## 6.3 Confirmatory Items from the Interim Staff Evaluation (ISE)

The Interim Staff Evaluation (ISE) Confirmatory Items have been completed for both Surry Unit 1 and Unit 2 as described in the Surry Unit 1 Compliance letter for Order EA-12-049 (Reference 4).

## 6.4 Audit Questions Reviewed During the SPS NRC Onsite Audit

Audit Questions have been resolved as described in either the Surry Final Audit Report (Reference 9) or the Surry Unit 1 Compliance letter for Order EA-12-049 (Reference 4).

## 6.5 Additional Items Reviewed During the SPS NRC Onsite Audit

Safety Evaluation (SE) Review items identified during the January 2015 NRC Onsite Audit have been completed as described in the Surry Final Audit Report (Reference 9).

## 7 Potential Safety Evaluation Impacts

Section 6.5 addresses the additional Safety Evaluation (SE) Review items identified and evaluated during the NAPS NRC Onsite Audit.

Dominion is participating in the ongoing industry effort to develop guidance for the Final Integrated Plan that will support NRC preparation of the Safety Evaluation documenting Surry's compliance with Order EA-12-049. The format of the Final Integrated Plan is consistent with the Safety Evaluation Template provided with the July 1, 2014 Jack Davis memorandum (Reference 10).

Serial No. 14-395C Docket No. 50-281 Order EA-12-049 Attachment Page 4 of 5

#### 8 References

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The following references support the updates to the OIP described in this attachment and are available in ADAMS or have previously been provided to the staff for their review.

- Virginia Electric and Power Company Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 28, 2013 (Serial No. 12-163B).
- 2. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.
- 3. Virginia Electric and Power Company's Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated March 2, 2015 (Serial No. 14-395A).
- 4. Virginia Electric and Power Company's letter titled "Surry Power Station Unit 1, Compliance Letter in Response to the March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigating Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," dated July 22, 2015 (SN:14-395B).
- Virginia Electric and Power Company's Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 23, 2013 (Serial No. 12-163D).
- Virginia Electric and Power Company's Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 27, 2014 (Serial No. 12-163E).
- Virginia Electric and Power Company's Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 28, 2014 (Serial No. 14-395).
- NRC letter from Jeremy S. Bowen, Chief, Mitigating Strategies Branch Office of NRR, to David A. Heacock, President and Chief Nuclear Officer, Virginia Electric and Power Company, "Surry Power Station, Units 1 and 2 – Interim Staff Evaluation Related to Overall Integrated Plan in Response to Order EA-12-049 (Mitigating Strategies)," dated February 19, 2014 (ML14002A145).

Serial No. 14-395C Docket No. 50-281 Order EA-12-049 Attachment Page 5 of 5

- NRC letter from John Boska, Senior Project Manager, JLD, Office of NRR, to David A. Heacock, President and Chief Nuclear Officer, Virginia Electric and Power Company, "Surry Power Station, Units 1 and 2 – Report for the Onsite Audit Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Instrumentation Related to Orders EA-12-049 and EA-12-051," dated April 14, 2015 (ML15096A391).
- Memorandum from Jack R. Davis, JLD, Office of NRR, to Stewart N. Bailey, Sheena A, Whaley, and Jeremy S. Bowen, "Supplemental Staff Guidance for the Safety Evaluations for Order EA-12-049 on Mitigation Strategies for Beyond-Design-Basis External Events and Order EA-12-051 on Spent Fuel Pool Instrumentation," dated July 1, 2014 (ML14161A643).