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NRC Order No. EA-12-051

RS-15-055

February 20, 2015

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
Docket Nos. 50-317 and 50-318

Subject: February 2015 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)

Reference: 1. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012 (ML12054A679)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Order EA-12-051 (Reference 1) to Constellation Energy Nuclear Group, LLC (CENG) for Calvert Cliffs Nuclear Power Plant, LLC (CCNPP). Reference (1) requires submission of a status report at six-month intervals following submittal of the Overall Integrated Plan. The attachment to this letter provides the February 2015 six month status report for CCNPP. This report updates the milestone accomplishments since the submittal of the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Mr. Michael J. Fick, Acting Regulatory Assurance Manager, at (410) 495-6714.

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I declare under penalty of perjury that the foregoing is true and correct. Executed on the 20th day of February, 2015.

Respectfully,

A handwritten signature in black ink that reads "Mary G. Korsnick". The signature is written in a cursive style with a large, prominent "M" and "K".

Mary G. Korsnick

MGK/GGM

Attachment: Six-Month Status Report (February 2015) for Reliable Spent Fuel Pool
Instrumentation

cc: Regional Administrator, Region I, USNRC
NRC Project Manager, NRR – Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector – Calvert Cliffs Nuclear Power Plant
S. Gray, MD-DNR

ATTACHMENT

**SIX-MONTH STATUS REPORT (FEBRUARY 2015)
FOR MITIGATION STRATEGIES FOR
RELIABLE SPENT FUEL POOL INSTRUMENTATION**

**CALVERT CLIFFS NUCLEAR POWER PLANT, LLC
February 20, 2015**

ATTACHMENT
SIX-MONTH STATUS REPORT (FEBRUARY 2015) FOR MITIGATION STRATEGIES FOR
RELIABLE SPENT FUEL POOL INSTRUMENTATION

1. Introduction

The Calvert Cliffs Nuclear Power Plant, LLC (CCNPP) Overall Integrated Plan (OIP) was submitted to the Nuclear Regulatory Commission (NRC) in February 2013 (Reference 1), documenting the requirements to install reliable spent fuel pool level instrumentation (SFP LI), in response to NRC Order Number EA-12-051(Reference 2). Subsequently, a supplement to the CCNPP SFP LI OIP was submitted to the NRC in March 2013 (Reference 3). By letter dated June 19, 2013 (Reference 4), the NRC requested that CENG respond to a request for additional information (RAI) regarding the CCNPP OIP for Reliable Spent Fuel Pool Instrumentation. By letter dated July 3, 2013 (Reference 5), CENG responded to the June 19, 2013 RAI. By letter dated August 27, 2013, CENG provided the first Six-Month Status Report (Reference 8). By letter dated November 15, 2013 (Reference 9), the NRC issued the CCNPP, Unit Nos. 1 and 2 Interim Staff Evaluation (ISE) and RAI regarding the Overall Integrated Plan for Implementation of Order EA-12-051. By letter dated February 24, 2014, CENG provided the second Six-Month Status Report (Reference 11). By letter dated August 26, 2014, Exelon provided the third Six-Month Status Report (Reference 12).

In compliance with NRC Order EA-12-051, CENG selected to install the VEGAPULS 62ER Through Air Radar system at CCNPP. The RSFPI contractor, AREVA, completed the engineering design, fabrication of the waveguide, fabrication of the power control panels and procurement of the VEGA instruments that are integrated into the wide-range Spent Fuel Pool Level Instrumentation System. The AREVA design was then integrated into the CCNPP Engineering Change Package (ECP). The engineering contractor, Sargent & Lundy prepared the design package and Exelon's Design Engineering Department at CCNPP performed the owner reviews and approval of the ECP.

Once AREVA fabricated all the components, they were all assembled and a factory performance test (FAT) was performed to demonstrate the system would perform as designed. The FAT performed the initial calibration, checked performance over the entire range of the instrument, and verified continued operation under extended loss of AC power (ELAP) conditions. The FAT was completed successfully, AREVA issued the test report, and the system was installed at CCNPP.

Following completion of implementation activities, each of the SFP Level Instrument systems was subjected to a site acceptance test (SAT) to perform a final calibration check and to demonstrate that the instrument systems perform as designed. The SAT demonstrated that with the installation of an antenna horn cover there was no loss of system performance. SAT results were reviewed to determine acceptability of the installed system in preparation for turnover to Plant Operations. The wide-range RSFPI has been turned over to CCNPP Plant Operations.

During implementation of the ECP, plant procedures were changed, and operations and maintenance personnel were trained on the new instrumentation system as well as the new procedures.

This attachment provides an update of milestone accomplishments since submittal of the last six-month status report in August 2014, including any changes to the compliance method, schedule, or need for relief/relaxation and associated basis (if applicable). This will be the last RSFPI six-month status report, Exelon having completed the successful installation and

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turnover of the system to CCNPP Plant Operations. Exelon will submit a letter to the NRC addressing compliance with NRC Order EA-12-051.

2. Milestone Accomplishments

The following milestones have been completed since the development of the OIP (References 1 and 3), and are current as of February 15, 2015.

- Submitted Overall Integrated Plan 1Q2013
- Issued Purchase Order for Instrumentation 2Q2013
- Commenced Engineering and Design 2Q2013
- Selected Instrumentation and Technology 2Q2013
- Submitted first six-month update 3Q2013
- Submitted second six-month update 1Q2014
- Completed Engineering and Design 1Q2014
- Commenced Installation of SFP Instruments 2Q2014
- Provided responses to ISE RAIs 2Q2014
- Submitted third six-month update 3Q2014
- Completed installation and system turnover to Operations 4Q2014

3. Milestone Schedule Status

Table 1 provides an update to the milestone schedule to support the OIP. It provides the activity status of each item and the completion date.

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RELIABLE SPENT FUEL POOL INSTRUMENTATION**

**Table 1
Status of CCNPP Reliable Spent Fuel Pool Instrumentation OIP Milestones**

Milestone	Target Completion Date	Status	Revised Target Completion Date
Commence Engineering and Design	2Q2013	Complete	
Complete Engineering and Design	3Q2013	Complete	1Q2014
Receipt of SFP Instruments	1Q2014	Complete	
Commence Installation of SFP Instruments	2Q2014	Complete	
Complete Installation of SFP Instruments	4Q2014	Complete	
Close out Project/Plant Turnover	3Q2014	Complete	4Q2014
Respond to NRC ISE RAI	3Q2014	Complete	
Issue EA-12-051 Compliance Letter	2Q2015	Not Started	

4. Changes to Compliance Method

Changes were made to the information provided in the OIP that do not change the compliance method with Nuclear Energy Institute (NEI) 12-02 (Reference 7). These changes continue to meet the guidance in JLD-ISG-2012-03 (Reference 6) and NEI 12-02 (Reference 7).

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

CCNPP 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

Since the July 2013 RAI (Response 5) and August 2013 Six-Month Status Report (Reference 8), the NRC provided CENG with its ISE and RAI regarding the CCNPP OIP for Reliable Spent Fuel Pool Instrumentation (Reference 9). Open item and regulatory commitments that were identified in References 5 and 8 have been superseded by a commitment made in the February 2014 six-month Status report in response to the ISE RAIs issued in Reference 9. Following a series of meetings between the industry, the NEI and the NRC, it was agreed that responses to the ISE RAI could be placed in a plant-specific, electronic file location, the CCNPP ePortal, which the NRC could access. In accordance with this agreement, responses to the CCNPP ISE RAI were uploaded to the ePortal and the NRC was advised via e-mail of this action. Appendix 1 of the August 2014 six-month Status report (Reference 12) also provided the ISE RAI and the CCNPP responses.

The ISE open items are considered closed. Open items documented in the OIP that were superseded by the ISE RAI have been closed. There are no Draft Safety Evaluation open items.

7. Potential Draft Safety Evaluation Impacts

Not applicable. There is no draft safety evaluation.

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8. References

The following references support the updates to the OIP described in this attachment.

1. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated February 28, 2013 (ML13066A172).
2. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012 (ML12054A679).
3. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation, dated March 8, 2013 (ML13073A155).
4. Letter from N. S. Morgan (NRC) to G. H. Gellrich (CENG), Calvert Cliffs Nuclear Power Plant, Units Nos. 1 and 2 – Request for Additional Information Regarding Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation, Order EA-12-051(TAC Nos. MF1140 and MF1141), dated June 19, 2013 (ML13164A393)
5. Letter from M .D. Flaherty (CENG) to Document Control Desk (NRC), Response to Request for Additional Information Regarding Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation (Order EA-12-051) (TAC Nos. MF1140 and MF1141), dated July 3, 2013 (ML13190A017).
6. NRC JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation, Revision 0, August 29, 2012 (ML12221A339).
7. 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, August 2012 (ML12240A307).
8. Letter from E. D. Dean (CENG) to Document Control Desk (NRC), 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), dated August 27, 2013 (ML13254A279).
9. Letter from M. C. Thadani (NRC) to J. A. Spina (CENG), Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, and Nine Mile Point Nuclear Station, Unit Nos. 1 and 2, Interim Staff Evaluation and Request for Additional Information Regarding the Overall Integrated Plan for Implementation of Order EA-12-051, Reliable Spent Fuel Pool Instrumentation (TAC Nos. MF1131, MF1132, MF1140, and MF1141), dated November 15, 2013 (ML13281A205).
10. Memorandum from C .A. Hunt (NRC) to M. A. Mitchell (NRC), Summary of the November 26, 2013 Public Meeting to Discuss Industry Responses to Staff Interim Evaluations for Spent Fuel Pool Instrumentation, dated December 26, 2013 (ML13347B030).

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11. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), 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), dated February 24, 2014.

12. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), 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), dated August 26, 2014.