



Order No. EA-12-051

RS-15-296

December 15, 2015

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

R. E. Ginna Nuclear Power Plant  
Renewed Facility Operating License No. DPR-18  
NRC Docket No. 50-244

Subject: Report of Full Compliance with 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 to Modify 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, 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. Constellation Energy Nuclear Group, LLC letter to NRC, Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), dated October 26, 2012
5. Constellation Energy Nuclear Group, LLC letter to NRC, 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
6. Constellation Energy Nuclear Group, LLC letter to NRC, Supplement to 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 March 8, 2013
7. NRC Letter to Constellation Energy Nuclear Group, LLC, R. E. Ginna Nuclear Power Plant – Request for Additional Information Regarding Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation, Order EA-12-051, dated August 29, 2013
8. Letter from Constellation Energy Nuclear Group, LLC to NRC, Response to Request for Additional Information Regarding Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation (Order EA-12-051), dated September 23, 2013

9. Constellation Energy Nuclear Group, LLC letter to NRC, First 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 (R. E. Ginna Nuclear Power Plant)
10. Constellation Energy Nuclear Group, LLC letter to NRC, Second 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 (R. E. Ginna Nuclear Power Plant)
11. Exelon Generation Company, LLC letter to NRC, Third 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 (R. E. Ginna Nuclear Power Plant)
12. Exelon Generation Company, LLC letter to NRC, Fourth 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 20, 2015 (RS-15-062)
13. Exelon Generation Company, LLC letter to NRC, Fifth 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 28, 2015 (RS-15-206)
14. NRC letter to Constellation Energy Nuclear Group, LLC, R. E. Ginna Nuclear Power Plant – 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, dated December 5, 2013
15. NRC letter to Exelon Generation Company, LLC, R. E. Ginna Nuclear Power Plant – Report for the Onsite Audit Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Orders EA-12-049 and EA-12-051, dated June 18, 2015
16. Letter from John Boska (NRC) to Steven Capps (DEC), McGuire Site Units 1 and 2 – Report for the Onsite Audit of AREVA Regarding Implementation of Reliable Spent Fuel Pool Instrumentation Related to Order EA-12-051, dated September 15, 2014 (TAC Nos. MF1062 and MF1063) (ML14203A326)

On March 12, 2012, the Nuclear Regulatory Commission (“NRC” or “Commission”) issued Order EA-12-051, “Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation,” (Reference 1) to Exelon Generation Company, LLC (EGC), previously Constellation Energy Nuclear Group, LLC (Exelon, the licensee). Reference 1 was immediately effective and directed EGC 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 (OIP) pursuant to Section IV, Condition C. Reference 2 endorsed industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the EGC initial status report regarding reliable spent fuel pool instrumentation. References 5 and 6 provided the R. E. Ginna Nuclear Power Plant OIP.

Reference 1 required submission of a status report at six-month intervals following submittal of the OIP. References 9, 10, 11, 12, and 13 provided the first, second, third, fourth, and fifth six-

month status reports, respectively, pursuant to Section IV, Condition C.2, of Reference 1 for R. E. Ginna Nuclear Power Plant.

The purpose of this letter is to provide the report of full compliance with the March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051) (Reference 1) pursuant to Section IV, Condition C.3 of the Order for R. E. Ginna Nuclear Power Plant.

R. E. Ginna Nuclear Power Plant has installed two independent level monitors for the Spent Fuel Pool (SFP), capable of accurately measuring SFP level from the top of the fuel racks to the SFP high level alarm setpoint, in response to Order EA-12-051. R. E. Ginna Nuclear Power Plant OIP Open Items have been addressed and closed as documented in References 9, 10, 11, 12, and 13, and are considered complete. The information provided herein documents full compliance for R. E. Ginna Nuclear Power Plant with Reference 1.

In Reference 7, the NRC requested that EGC respond to a request for additional information (RAI) regarding the R. E. Ginna Nuclear Power Plant OIP for NRC Order EA-12-051. In Reference 8, EGC provided the response to the August 29, 2013 RAI. In Reference 14, the NRC issued the R. E. Ginna Nuclear Power Plant Interim Staff Evaluation (ISE), which contained RAIs regarding the Overall Integrated Plan for Implementation of Order EA-12-051. In communications between the NRC and the nuclear industry coordinated by the NEI, the NRC indicated that the ISE RAIs superseded the RAIs from Reference 7.

In Reference 16, the NRC conducted an audit of AREVA Spent Fuel Pool (SFP) Instrumentation supplied technology at the AREVA facility, as well as at the McGuire Station. In summary, the audit concluded that the NRC found the SFP Instrumentation design and qualification process acceptable.

EGC's response to the NRC Interim Staff Evaluation (ISE) Open Items (ISE RAIs) identified in Reference 14 have been addressed and closed as documented in References 9, 10, 11, 12, and 13, and are considered complete. EGC's response to the NRC audit questions and additional audit open items have been addressed as documented in the NRC Site Audit Report (Reference 15). Reference 15 contains no remaining audit open items regarding R. E. Ginna Nuclear Power Plant compliance with NRC Order EA-12-051.

The following table provides completion references for each NRC ISE RAI.

ISE RAI Nos. 1, 3, 4, 7, 8, 9, 10, 11, 12, 13	Reference 10
ISE RAI Nos. 2, 5, 6	Reference 12
ISE RAI Nos. 14, 15, 16, 17, 18	Reference 11

**MILESTONE SCHEDULE – ITEMS COMPLETE**

<b>Milestone</b>	<b>Completion Date</b>
Submit 60 Day Status Report	October 26, 2012
Submit Overall Integrated Plan	February 28, 2013
Submit Responses to RAIs	September 23, 2013
<b>Submit 6 Month Updates:</b>	
Update 1	August 27, 2013
Update 2	February 24, 2014
Update 3	August 26, 2014
Update 4	February 20, 2015
Provide Final Safety Evaluation (SE) Information	September 30, 2014
Update 5	August 28, 2015
<b>Modifications:</b>	
Commence Engineering and Design	3Q2013
Complete Engineering and Design	4Q2013
Receipt of SFP Instruments	1Q2014
Commence Installation of SFP Instruments	4Q2014
Close-out Project/Plant Turnover	1Q2015

**ORDER EA-12-051 COMPLIANCE ELEMENTS SUMMARY**

The elements identified below for R. E. Ginna Nuclear Power Plant, as well as the site overall integrated plan response submittal (References 5 and 6), the 6-Month Status Reports (References 9, 10, 11, 12 and 13), and any additional docketed correspondence, demonstrate compliance with Order EA-12-051.

**IDENTIFICATION OF LEVELS OF REQUIRED MONITORING - COMPLETE**

R. E. Ginna Nuclear Power Plant has identified the three required levels for monitoring SFP level in compliance with Order EA-12-051. The required actions have been integrated into the site procedures for monitoring level during events and responding to loss of SFP inventory.

**INSTRUMENT DESIGN FEATURES - COMPLETE**

The design of the instruments installed at R. E. Ginna Nuclear Power Plant complies with the requirements specified in the Order and described in NEI 12-02, "Industry Guidance for Compliance with NRC Order EA-12-051". The instruments have been installed in accordance with the station design control process.

The instruments have been arranged to provide reasonable protection against missiles. The instruments have been mounted to retain design configuration during and following the maximum expected ground motion. The instruments will be reliable during expected environmental and radiological conditions when the SFP is at saturation for extended periods. The instruments are independent of each other and have separate and diverse

power supplies. The instruments will maintain their design accuracy following a power interruption and are designed to allow for routine testing and calibration.

The instrument display is readily accessible during postulated events and allows for SFP level information to be promptly available to decision makers.

#### **PROGRAM FEATURES - COMPLETE**

Training for R. E. Ginna Nuclear Power Plant, has been completed in accordance with an accepted training process as recommended in NEI 12-02, Section 4.1.

Operating and maintenance procedures for R. E. Ginna Nuclear Power Plant have been developed and integrated with existing procedures. Procedures have been verified and are available for use in accordance with the site procedure control program.

Site processes have been established to ensure the instruments are maintained at their design accuracy.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact David P. Helker at 610-765-5525.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 15<sup>th</sup> day of December 2015.

Respectfully submitted,



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James Barstow  
Director - Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

cc: Director, Office of Nuclear Reactor Regulation  
NRC Regional Administrator - Region I  
NRC Senior Resident Inspector – R. E. Ginna Nuclear Power Plant  
NRC Project Manager, NRR – R. E. Ginna Nuclear Power Plant  
Mr. John P. Boska, NRR/JLD/JOMB, NRC