



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

November 24, 2014

EA-13-209

Mr. Michael J. Pacilio
Senior VP, Exelon Generation Co., LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION-NRC FOLLOW UP INSPECTION REPORT
05000456/2014010 AND 05000457/2014010

Dear Mr. Pacilio:

On October 15, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed a follow up inspection for six Severity Level (SL) IV violations identified between January 1, 2013, and December 31, 2013, at your Braidwood Station. The enclosed report documents the results of this inspection, which were discussed on October 15, 2014, with Mr. M. Kanavos and other members of your staff.

The objectives of this follow up inspection were to provide assurance that: (1) the cause(s) of multiple SL IV traditional enforcement violations were understood by the licensee; (2) the extent of condition and extent of cause of multiple SL IV traditional enforcement violations were identified; and (3) licensee corrective actions to traditional enforcement violations were sufficient to address the cause(s).

The inspection consisted of an examination of activities conducted under your license as they relate to safety, compliance with the Commission's rules and regulations, the conditions of your operating license, and the objectives stated above.

Based on the results of this inspection, the inspector determined that, in general, the causes of the violations were adequately understood, the extent of condition and extent of cause of the violations were identified to the extent required by station procedures, and corrective actions planned or taken were sufficient to address the causes.

Based on the results of this inspection, no findings were identified.

M. Pacilio

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA Ray Ng Acting for/

Eric R. Duncan, Chief
Branch 3
Division of Reactor Projects

Docket Nos. 50-456; 50-457
License Nos. NPF-72; NPF-77

Enclosure:
IR 05000456/2014010; 05000457/2014010
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-456; 50-457
License Nos: NPF-72; NPF-77

Report No: 05000456/2014010; 05000457/2014010

Licensee: Exelon Generation Company, LLC

Facility: Braidwood Station

Location: Braceville, IL

Dates: October 7 through October 15, 2014

Inspector: Brent Boston, Reactor Engineer, Branch 3

Approved by: E. Duncan, Chief
Branch 3
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report 05000456/2014010, 05000457/2014010; 10/7/2014–10/9/2014; Braidwood Station, Units 1 and 2; Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period.

This report covers a 3-day period of inspection by a Branch 3 Reactor Engineer. No findings were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process," Revision 5, dated February 2014.

The inspector concluded that, in general, for these violations, the causes were understood by the licensee, the extent of condition and extent of cause were identified to the extent required by Braidwood Station procedures, and the licensee's corrective actions were sufficient to address the identified causes.

REPORT DETAILS

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety and Security

4OA5 Other Activities

.1 Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period (Inspection Procedure 92723)

This inspection was conducted in accordance with Inspection Procedure (IP) 92723, "Follow Up Inspection for Three or More Severity Level (SL) IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," to assess the licensee's evaluation of six SL IV violations that occurred within the area of impeding the regulatory process from January 1, 2013, to December 31, 2013. These violations were documented in NRC Inspection Reports as: (1) Non-Cited Violation (NCV) 05000456/2013002-01; 05000457/2010002-01; (2) Licensee Event Report (LER) 2012-003-01; (3) NCV 05000456/2013004-01; 05000457/20105004-01; (4) NCV 05000456/2013005-01; 05000457/2013005-01; (5) NCV 05000456/2013005-03; 05000457/2013005-03; and (6) Violation (VIO) 05000457/2013008-01 (EA-13-209).

The inspection objectives were to:

- Provide assurance that the causes of multiple SL IV traditional enforcement violations were understood by the licensee;
- Provide assurance that the extent of condition and extent of cause of multiple SL IV traditional enforcement violations were identified; and
- Provide assurance that licensee corrective actions (CAs) to traditional enforcement violations were sufficient to address the causes.

The inspector reviewed the cause evaluation associated with each of the issues and the Common Cause Analysis (CCA) 1609235, "Six Traditional Enforcement NRC Violations in the Last 12 Months." Additionally, the inspector reviewed Licensee Check-In Self-Assessment Report 1630578, "Pre-NRC Inspection Check-in: Follow-up Inspection for Three or More SL IV Traditional Enforcement Violations in the Same Area in a 12-Month Period." The inspector reviewed CAs to address the identified causes. The inspector also held discussions with licensee personnel to ensure that the causes were understood and CAs were appropriate to address the causes.

.2 Evaluation of the Inspection Requirements

2.01 Review of Problem Identification

- a. Determine that the licensee's evaluation identifies how each of the issues were identified, how long each issue existed, and prior opportunities for identification

The inspector determined that the licensee's evaluation addressed how each of the issues were identified, how long they existed, and prior opportunities for identification.

Each issue was individually evaluated through the licensee's Corrective Action Program (CAP). Additionally, the licensee performed a collective evaluation for the six SL IV violations in 2013 through a pre-NRC inspection self-assessment.

- b. Findings

No findings were identified.

2.02 Evaluate Cause, Extent of Condition, and Extent of Cause Evaluations

- a. Determine that the group of Severity Level IV violations received an evaluation at an appropriate level of detail using a systematic method(s) to identify cause(s)

The inspector determined that the SL IV violations were reviewed collectively using a systematic process to identify any common cause(s). The inspector determined this review contained an appropriate level of detail. The inspector verified that each SL IV violation was adequately evaluated in accordance with Braidwood Station's CAP requirements. The licensee's CCA identified two major common elements and used them to group most of the violations into two groups for additional consideration. These groups were "Failure to Make a Required Report to the NRC" and "Legacy Violations." The term "legacy violations" was used to describe NRC violations where the performance deficiency occurred greater than 5 years ago. The licensee also assessed the cause(s) for individual violations.

- b. Determine that the evaluation included a consideration of how prior occurrences in the same traditional enforcement area (willfulness, regulatory process, or consequences) were addressed by the licensee

The licensee chose to include an additional SL IV violation from 2012 (NCV 05000456/2012004-05; 05000457/2012004-05) involving a failure to submit a required report which broadened the scope of their CCA. The inspector determined that the licensee's evaluation included a consideration of how prior occurrences in the area of impeding the regulatory process were addressed. The licensee's self-assessment of their CCA deliberately reviewed four SL IV traditional enforcement violations within the area of impeding the regulatory process which had occurred at Braidwood during the year ending September 30, 2011, checking for repeat or similar problems and found no commonality with the recent issues. The CCA also considered operational experience regarding failure to make required reports to the NRC from other sites.

The inspector reviewed the SL IV violations to determine if they were due to a more fundamental concern involving weaknesses in the station's CAP. The inspector did not identify any commonality among the SL IV violations that suggested a fundamental weakness with the station's CAP.

- c. Determine that the evaluation addresses the extent of the condition and the extent of cause of the problem

The inspector reviewed the individual CAP items for each of the SL IV violations as well as the self-assessment. The inspector determined that the licensee CAP process augmented by the CCA addressed the extent of condition and the extent of cause in accordance with the procedural requirements.

- d. Findings

No findings were identified.

2.03 Evaluate Corrective Actions

- a. Determine that appropriate corrective action(s) are specified for each cause identified for the group of violations or that there is an evaluation indicating that no actions are necessary

The inspector determined that appropriate CAs were specified for the causes identified for each of the SL IV violations.

The licensee's CCA identified "Failure to Make a Required Report to the NRC" as a common element in three of the SL IV violations considered in the CCA and addressed this by extensive review of the Exelon Reportability Reference Manual and training for selected managers on application of the reportability manual. The inspector reviewed the training material and the current Reportability Reference Manual and identified no deficiencies.

Three violations shared the common element of being "Legacy Violations"; two of these three involved 10 CFR 50.59 issues. The licensee's CCA identified several process improvements which appear likely to reduce future 50.59 deficiencies. The licensee also performed extensive review of a sampling of 50.59 screenings and 50.59 evaluations looking for additional issues but found none. Appropriateness of the licensee's corrective action for the 50.59 issues was further demonstrated by NRC Inspection Report 05000456/2014008; 05000457/2014008, "Braidwood Station, Units 1 and 2 Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications Baseline Inspection Report," dated March 27, 2014, which included seven samples of 50.59 evaluations and 13 samples of 50.59 screenings, as defined in IP 71111.17, with no findings identified.

- b. Determine that the corrective actions have been prioritized with consideration of the regulatory compliance

The inspector determined that CAs were adequately prioritized with consideration of regulatory compliance.

Procedure PI-AA-125, "Corrective Action Program Procedure," provided guidance for prioritizing CAs. A sample review conducted by the inspector indicated that CAs were appropriately prioritized.

- c. Determine that a schedule has been established for implementing and completing the corrective actions

The inspector determined that a schedule was established for implementing and completing the CAs.

Procedure PI-AA-125 provided guidance for establishing due dates for CAs. The inspector conducted a sample review of completed and planned CAs and did not identify any discrepancies.

- d. Determine that measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence

Measures of success were developed for determining the effectiveness of the CAs to prevent recurrence. The licensee's CCA defined a specific measure of success for the corrective actions addressing the violations related to making required reports to the NRC as part of evaluating the effectiveness of corrective actions. This measure focuses on making all required reports throughout calendar year 2014.

- e. Findings and Observations

No findings were identified.

4OA6 Management Meeting

.1 Exit Meeting Summary

On October 15, 2014, the inspector presented the inspection results to Mr. M. Kanavos, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

M. Kanavos, Site Vice President
M. Marchionda, Plant Manager
J. Bashor, Engineering Manager
V. Cwietniewicz, Corporate Emergency
Preparedness Manager
A. Ferko, Operations Manager
M. Jesse, Corporate Regulatory Assurance Manager
S. Reynolds, Nuclear Oversight Manager
P. Raush, Regulatory Assurance Manager
D. Stiles, Site Training Director
M. Abbas, NRC Coordinator

Nuclear Regulatory Commission

E. Duncan, Chief, Reactor Projects Branch 3
J. Benjamin, Senior Resident Inspector, Braidwood

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

None

Discussed

05000456/2012-003-01; 05000457/2012-003-01	LER	Fuel Handling Incident Area Radiation Monitors Inoperable Due to Incorrect Alarm Setpoints
05000456/2013002-01; 05000457/2013002-01	NCV	Failure to Perform an Adequate 10 CFR 50.59 Evaluation Removing the Positive Displacement Pump from the Current Licensing Basis
05000456/2013004-01; 05000457/2013004-01	NCV	Failure to Perform a Required 10 CFR 50.59 Evaluation
05000456/2013005-01; 05000457/2013005-01	NCV	Failure to Maintain Accurate Operator Logs
05000456/2013005-03; 05000457/2013005-03	NCV	Failure to Submit Report Required by 10 CFR 50.72(b)(3)(xiii)
05000457/2013008-01 (EA-13-209)	VIO	Inaccurate/Incomplete Information For Exemption Request From 10 CFR 50.60.

LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

- AR 01267093, Pre-NRC Inspection Check-In – IP 92723
- AR 01373856, Emergent Tech Spec 1AR12J Due To Non-Conservative Setpoint
- AR 01572994, TSC Make Up Fan Heating Coil High Temp Alarm
- AR 01598598, Wording Differences Between NUREG 1022 and Reportability Manual
- AR 01609235, Six Traditional Enforcement NRC Violations in 12 Months
- AR 01613759, 4Q13 – NRC S/L 4 Green NCV – Fail to Report Loss of TSC Vent
- AR 01630578, Pre-NRC Inspection Check-in: Follow Up Inspection for Three or More SL IV Traditional Enforcement Violations in the Same Area in a 12 Month Period
- IR 1267093, Self-Assessment Report, November 17, 2011
- IR 1442298, Loss of UHS [Ultimate Heat Sink] Safety Function Not Reported Under [10 CFR] 50.72 and 50.73 During UHS NOED [Notice of Enforcement Discretion]
- IR 1463771, Failure to Report AR11/12J Loss of Safety Function
- IR 1477923, Inadequate 50.59 for 1997 UFSAR Change to Allow Long-Term Unavailability of CVCS PDP
- IR 1541343, Inadequate 50.59 for Procedure Change from 1998 (1BWOA SEC-4) to Stop All Charging Pumps when VCT Level < 10%
- IR 1572994, Failure to Make 8-Hour Call to NRC Due to Loss of Emergency Preparedness Capability for TSC Ventilation
- IR 1578413, Failure to Provide Complete and Accurate Information to NRC Regarding Operator Logs
- IR 1585416, Failure to Provide Complete and Accurate Information to the NRC as it Pertains to a License Amendment Request for PTLR
- IR 1613676, 4Q13-NRC S/L [Severity Level] 4 Green NCV – Fail to Main [Maintain] Accurate Op [Operator] Logs
- LER 2012-003-01, Licensee Event Report 2012-003-01 - Fuel Handling Incident Area Radiation Monitors Inoperable Due to Incorrect Alarm Setpoints
- LS-AA-104, Exelon 50.59 Review Process, Revision 9
- LS-AA-1010, Table of Contents, Exelon Reportability Reference Manual, Revision 26
- LS-AA-1020, Reportability Tables and Decision Trees, Revision 22
- NRC Inspection Report 05000456/2014008; 05000457/2014008, Braidwood Station, Units 1 And 2 Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications Baseline Inspection Report, March 27, 2014
- Nuclear Energy Institute Letter dated June 5, 2013, "Endorsement of NEI 13-01, 'Reportable Action Levels for Loss of Emergency Preparedness Capabilities,' Revision 0, June 2013"
- OP-AA-102-104, Unit 1 & 2 Standing Order, Corrections to Electronic Log Entries, Revision 2
- OP-AA-111-101, Operating Narrative Logs and Records, Revision 9
- PI-AA-125, Corrective Action Program (CAP) Procedure, Revision 0
- Technical Specifications, Braidwood Station, Unit 1 Facility Operating License
- Braidwood LORT [Licensed Operator Requalification Training] /Cycle 14-3, Module/LP ID, P1-SP-14-20
- Training Material, P1-SP-14-20 TR Review Reportability Manual

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
CA	Corrective Action
CAP	Corrective Action Program
CCA	Common Cause Analysis
CFR	Code of Federal Regulations
IP	Inspection Procedure
LER	Licensee Event Report
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
SL	Severity Level
VIO	Violation

M. Pacilio

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Sincerely,

/RA Ray Ng Acting for/

Eric R. Duncan, Chief
Branch 3
Division of Reactor Projects

Docket Nos. 50-456; 50-457
License Nos. NPF-72; NPF-77

Enclosure:
IR 05000456/2014010; 05000457/2014010
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