



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, ILLINOIS 60532-4352

September 26, 2018

Mr. Bryan C. Hanson  
Senior VP, Exelon Generation Company, LLC  
President and CNO, Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2—NRC DESIGN  
BASIS ASSURANCE INSPECTION (PROGRAMS); INSPECTION REPORT  
05000254/2018011 AND 05000265/2018011

Dear Mr. Hanson:

On September 6, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an NRC Design Basis Assurance inspection (Programs) at your Quad Cities Nuclear Power Station, Units 1 and 2. On September 6, 2018, the NRC inspectors discussed the results of this inspection with Mr. K. Ohr, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any findings or violations of more-than-minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations*, Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

**/RA/**

Nestor Feliz-Adorno, Acting Chief  
Engineering Branch 2  
Division of Reactor Safety

Docket Nos. 50-254, 50-265  
License Nos. DPR-29; DPR-30

Enclosure:  
IR 05000254/2018011; 05000265/2018011

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Letter to Bryan C. Hanson from Nestor Feliz-Adorno dated September 26, 2018.

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-254; 50-265

License Nos: DPR-29; DPR-30

Report Numbers: 05000254/2018011; 05000265/2018011

Enterprise Identifier: I-2018-011-0046

Licensee: Exelon Generation Company, LLC

Facility: Quad Cities Nuclear Power Station, Units 1 and 2

Location: Cordova, IL

Dates: August 20, 2018, through September 6, 2018

Inspectors: B. Jose, Senior Reactor Inspector  
J. Gilliam, Reactor Inspector  
I. Hafeez, Reactor Inspector

Approved by: N. Feliz-Adorno, Acting Chief  
Engineering Branch 2  
Division of Reactor Safety

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting a Design Bases Assurance (Programs) Inspection at Quad Cities Nuclear Power Station, Units 1 and 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. The NRC and self-revealed findings, violations, and additional items are summarized in the table below.

### **List of Findings and Violations**

No findings or violations were identified.

### **Additional Tracking Items**

None

## **INSPECTION SCOPES**

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## **REACTOR SAFETY**

### 71111.21N—Design Bases Assurance Inspection (Programs)

The inspectors evaluated Environmental Qualification Program implementation through the sampling of the following components:

#### Risk Significant/Low Design Margin Components (7)

- (1) 1-8351-1A-H2, HPCI Pump Discharge Valve 250 Vdc Motor Control Center Cubicle;
- (2) 1-2301-4, HPCI Steam Supply Motor Operated Valve;
- (3) 1-4720, Drywell Upstream Inlet Solenoid Valve;
- (4) 1-7800-18/19-5-A1, Incoming Bus 18 Division 1 Motor Control Center 18/19-5 Power Supply Cable;
- (5) LT 1-1641-5A, Torus Wide Range Level Transmitter;
- (6) PT 1-1641-6A, Drywell Pressure Transmitter; and
- (7) FT 1-1042-A, Residual Heat Removal (RHR) Service Water Pumps 1-1001-65A & B Discharge Flow Transmitter.

#### Primary Containment Components (2)

- (1) 1-0100-X100A, Electrical Penetration X100A; and
- (2) 1-3706, Unit 1 Reactor Building Closed Cooling Water (RBCCW) Inboard Return Valve.

## **INSPECTION RESULTS**

### 71111.21N—Design Bases Assurance Inspection (Programs)

No findings or violations were identified.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors confirmed that proprietary information was controlled to protect from public disclosure. No proprietary information was documented in this report.

- On September 6, 2018, the inspectors presented the Design Bases Assurance Program Inspection results to Mr. K. Ohr, Site Vice President, and other members of the licensee staff.

## DOCUMENTS REVIEWED

### 71111.21N—Design Bases Assurance Inspection (Programs)

- EQ -21Q, EQ Binder for ITT Barton Model 764 (Tab A-E), Revision 7
- EQ-39Q, EQ Binder for Solenoid Valve ASCO NP8316A54E (AC) (Tab A-E), Revision 13
- EQ-75Q, EQ Binder for Limitorque Model SMB (Tab A-E), Revision 8
- WO 0143888-01, (LR) (EQ) Wide Range Torus Water Level Indication (0-30) CAL, 07/31/2017
- WO 01616599-01, Mechanical Inspection and Stem Lube, 04/08/2017
- WO 01817557-01, RBCCW Power Operated Valve Test (IST), 04/03/2017
- WO 1571690-01, Modify Actuator Gearing for 1-3706 per EC 39023, 03/14/2015
- MM-AA-723-301, Periodic Inspection of Limitorque Model SMB/SB/SBD-000 through 5 Motor Operated Valves, Revision 13
- FCD LMAIM1401-00, Limitorque SMB Series/SB Series Installation and Maintenance, 10/2004
- EQ-35Q EQ Binder for Rosemount Pressure Transmitter Model 1152GP, Revision 11
- WO 04784398-01, Containment Pressure -5 to +250 PSIG Calibration, 07/31/2018
- EQ-12Q, EQ Binder for Rosemount Pressure Transmitter Models 1153 Series B & D, Revision 17
- WO 01829323-01, Perform Loop Calibration on FT1-1042-A, 10/28/2016
- QCEMS 0250-11, 480/208VAC Motor Control Center Cubicle Maintenance and Surveillance, Revision 68
- EQ-15Q, EQ Binder for General Electric Butyl Rubber Insulated Cable, Revision 10
- EQ-67Q, EQ Binder for Cutler-Hammer/250V DC MCC, Revision 09
- EQ-75Q, EQ Binder for Limitorque/ Valve Actuators Model SMB (Inside Containment), Revision 05
- 4E-1050, Cable Routing Turbine and Reactor BLDG Ground Floor, Revision BH
- 4E-1312, Key Diagram Reactor Building 480V MCC 18-1B and 18/19-5, Revision AQ
- 4E-1317, Key Diagram 250V DC Motors Control Centers, Revision AZ
- 4E-1410, Schematic Diagram Reactor Manual Control Sheet No.2, Revision I
- 4E-1681G, Wiring and Schematic Diagram Reactor Building Essential Service 480V MCC 18 19-5, Revision AZ
- 4E-1817C, Wiring Diagram Control Rod Position & Rod Temperature Monitoring Penetration X-100A, Revision B
- 4E-1902Z, Cable Tabulation Cables 12350 to 12399, Revision AI
- M-46, Diagram of High Pressure Coolant Injection HPCI Piping, Revision S
- C0104, Cutler-Hammer Motor Control Centers; 01/07/1992
- C0235; Westinghouse Circuit Breakers, Revision 001
- FCD LMAIM 1401, Flowserve Limitorque Actuation Systems, Revision 00
- 01662437, MM SR MOV 1-2301-4 Grease Inspection/ Stem Lube, 01/17/2017
- 01079758, EM EQ MCC Cubicle Inspection MCC 18/19-5 Compartment A2 + Incoming Bus 18 Div1 -MCC 18/19-5 Power Supply Contactor, 02/05/2009

### Corrective Actions Documents Generated as a Result of the Inspection

- IR 04170587, DBA EQ: EQ-75Q MOV Motor Bearing Grease Qualified Life, 09/06/2018
- AR 04166040, DBA EQ: Documents not Updated after Contactor Replacement, 08/21/2018
- AR 04166209, NRC DBA EQ Inspection – Unidentified Spool Piece, 08/22/2018
- AR 04166236, DBA EQ: EQ Binder EQ-75Q Tab E Identifies 40 Year Qualified Life vs 60, 08/22/2018
- AR 04166574, DBA EQ: EQ-75Q Tab C2 Contains Incorrect Reference Numbers, 08/23/2018