



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

September 23, 2021

Mr. David P. Rhoades
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 –
EMERGENCY PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT
05000317/2021501 AND 05000318/2021501

Dear Mr. Rhoades:

On September 16, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Calvert Cliffs Nuclear Power Plant, Units 1 and 2 and discussed the results of this inspection with Mr. Thomas Haaf, Site Vice President and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

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* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Fred L. Bower, III, Chief
Security, Emergency Preparedness, and Incident
Response Branch
Division of Radiological Safety and Security

Docket Nos. 05000317 and 05000318
License Nos. DPR-53 and DPR-69

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 –
 EMERGENCY PREPAREDNESS BIENNIAL EXERCISE INSPECTION REPORT
 05000317/2021501 AND 05000318/2021501 DATED SEPTEMBER 23, 2021

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DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/RI.DRS.PSB.EP/Shared Documents/EP Inspection Reports/Calvert Cliffs/Calvert Cliffs EP EX IR 2021-501.docx>

ADAMS ACCESSION NUMBER: ML21266A306

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Numbers: 05000317 and 05000318

License Numbers: DPR-53 and DPR-69

Report Numbers: 05000317/2021501 and 05000318/2021501

Enterprise Identifier: I-2021-501-0000

Licensee: Exelon Generation Company, LLC

Facility: Calvert Cliffs Nuclear Power Plant, Units 1 and 2

Location: Lusby, MD

Inspection Dates: September 13, 2021 to September 16, 2021

Inspectors: J. Rady, Senior Emergency Preparedness Inspector
J. Schoppy, Senior Reactor Inspector
S. Seeley, Health Physicist

Approved By: Fred L. Bower, III, Chief
Security, Emergency Preparedness and Incident Response Branch
Division of Radiological Safety and Security

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an emergency preparedness biennial exercise inspection at Calvert Cliffs Nuclear Power Plant, 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.

List of Findings and Violations

No findings or violations of more than minor significance 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 (IMC) 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. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71114.01 - Exercise Evaluation

Inspection Review (IP Section 02.01-02.11) (1 Sample)

- (1) The inspectors evaluated the biennial emergency plan exercise. The exercise scenario simulated an anticipated transient without scram (ATWS), loss of coolant accident, fuel clad damage, and loss of containment integrity on September 14, 2021. Exelon onsite emergency responders also participated in a simulated large-scale fire exercise scenario which damaged the spent fuel pool in order to demonstrate the extensive damage mitigation guidelines described in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.155(b)(2) as required by 10 CFR Part 50, Appendix E.IV.F.2.j on September 15, 2021.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes:
 - EP-AA-112-200-F-04, Security Coordinator Checklist, Revision J
 - EP-AA-112-200-F-29, Electrical Engineer Checklist, Revision E
 - EP-AA-112-300-F-01, Operations Support Center Director Checklist, Revision S
 - EP-AA-112-400-F-04, Emergency Operations Facility Logistics Manager Checklist, Revision R

This evaluation does not constitute NRC approval.

71114.08 - Exercise Evaluation Scenario Review

Inspection Review (IP Section 02.01 - 02.04) (1 Sample)

- (1) The inspectors reviewed and evaluated the proposed scenario for the biennial emergency plan exercise on August 9, 2021.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) July 1, 2020 – June 30, 2021

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

- (1) July 1, 2020 – June 30, 2021

EP03: Alert And Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

- (1) July 1, 2020 – June 30, 2021

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On September 16, 2021, the inspectors presented the emergency preparedness biennial exercise inspection results to Mr. Thomas Haaf, Site Vice President and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71114.01	Miscellaneous		Calvert Cliffs Nuclear Power Plant 2021 Emergency Preparedness Biennial Exercise Scenario Package	July 15, 2021
71151	Corrective Action Documents Resulting from Inspection	IR 04446500		