



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 26, 2019

Mr. Bryan C. Hanson  
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 – ISSUANCE  
OF AMENDMENT NOS. 330 AND 308 RE: RELOCATION AND  
CONSOLIDATION OF THE EMERGENCY OPERATIONS FACILITY AND  
JOINT INFORMATION CENTER FOR THE CALVERT CLIFFS NUCLEAR  
POWER PLANT (EPID L-2018-LLA-0241)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 330 to Renewed Facility Operating License No. DPR-53 and Amendment No. 308 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant (Calvert Cliffs), Units 1 and 2, respectively. These amendments consist of changes to the renewed facility operating licenses in response to your application transmitted by letter dated August 30, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18242A067), as supplemented by letter dated January 11, 2019 (ADAMS Accession No. ML19014A044).

These amendments approved the relocation and consolidation of the Emergency Operations Facility (EOF) and Joint Information Center (JIC) for Calvert Cliffs with the existing Exelon Generation Company, LLC joint EOF and JIC located in Coatesville, Pennsylvania. This joint facility also serves as the EOF/JIC for Limerick Generating Station, Units 1 and 2, Peach Bottom Atomic Power Station, Units 2 and 3, and Three Mile Island Nuclear Station, Unit 1.

A copy of our related safety evaluation is also enclosed. A notice of issuance will be included in the Commission's biweekly *Federal Register* notice.

If you have any questions, please contact me at 301-415-2871 or at michael.marshall@nrc.gov.

Sincerely,

A handwritten signature in black ink, reading "Michael L. Marshall, Jr." with a stylized flourish at the end.

Michael L. Marshall, Jr., Senior Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures:

1. Amendment No. 330 to DPR-53
2. Amendment No. 308 to DPR-69
3. Safety Evaluation

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 330  
Renewed License No. DPR-53

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee) dated August 30, 2018, as supplemented by letter dated January 11, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, by Amendment No. 330, Renewed Facility Operating License No. DPR-53 is hereby amended to authorize relocation of the emergency operations facility and revision to the emergency plan as set forth in the licensee's application dated August 30, 2018, as supplemented by letter dated January 11, 2019, and evaluated in the NRC staff's safety evaluation enclosed with this amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented no later than April 30, 2020.

FOR THE NUCLEAR REGULATORY COMMISSION

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Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Date of Issuance: August 26, 2019



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 308  
Renewed License No. DPR-69

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee) dated August 30, 2018, as supplemented by letter dated January 11, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, by Amendment No. 308, Renewed Facility Operating License No. DPR-69 is hereby amended to authorize relocation of the emergency operations facility and revision to the emergency plan as set forth in the licensee's application dated August 30, 2018, as supplemented by letter dated January 11, 2019, and evaluated in the NRC staff's safety evaluation enclosed with this amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented no later than April 30, 2020.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'Ho K. Nieh', followed by a small mark.

Ho K. Nieh, Director  
Office of Nuclear Reactor Regulation

Date of Issuance: August 26, 2019



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO THE RELOCATION AND CONSOLIDATION OF  
THE EMERGENCY OPERATIONS FACILITY AND JOINT INFORMATION CENTER  
FOR THE CALVERT CLIFFS NUCLEAR POWER PLANT  
AMENDMENT NO. 330 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53  
AMENDMENT NO. 308 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
EXELON GENERATION COMPANY, LLC  
CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By application dated August 30, 2018 (Reference 1), as supplemented by letter dated January 11, 2019 (Reference 2), Exelon Generation Company, LLC (Exelon, the licensee), submitted a license amendment request (LAR) to the U.S. Nuclear Regulatory Commission (NRC, the Commission) to relocate and consolidate the emergency operations facility (EOF) and joint information center (JIC) for Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (CCNPP, Calvert Cliffs) with the existing Exelon Mid-Atlantic joint EOF and JIC (hereafter referred to as the Coatesville EOF) located in Coatesville, Pennsylvania. The supplemental letter dated January 11, 2019, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* (FR) on December 18, 2018 (83 FR 64896).

The Coatesville EOF is currently used for Limerick Generating Station, Units 1 and 2 (Limerick), Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom), and Three Mile Island Nuclear Station, Unit 1 (TMI). The proposed amendment would increase the number of sites supported by the Coatesville EOF from three to four. The Coatesville EOF is approximately 115 miles from Calvert Cliffs. Since the Coatesville EOF is more than 25 miles from Calvert Cliffs, prior NRC approval is required per paragraph IV.E.8.b of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to Title 10 of the *Code of Federal Regulations* (CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities."

## 2.0 REGULATORY EVALUATION

The NRC staff considered the following regulatory requirements and guidance during its review of the proposed changes.

### 2.1 Regulations

- Paragraph 50.47(b)(1) of 10 CFR Part 50 states, in part: "Primary responsibilities for emergency response by the nuclear facility licensee ... have been assigned ... and each principal response organization has staff to respond and to augment its initial response on a continuous basis."
- Paragraph 50.47(b)(3) of 10 CFR Part 50 states, in part: "...arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made...."
- Paragraph 50.47(b)(7) of 10 CFR Part 50 states, in part: "...the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established."
- Paragraph 50.47(b)(8) of 10 CFR Part 50 states: "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."
- Paragraph 50.47(b)(9) of 10 CFR Part 50 states: "Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."

Paragraph IV of Appendix E to 10 CFR Part 50 includes requirements for the content of emergency plans.

- Paragraph IV.E.8.b of Appendix E to 10 CFR Part 50 states, in part: "A licensee desiring to locate an emergency operations facility more than 25 miles from a nuclear power reactor site shall request prior Commission approval by submitting an application for an amendment to its license. For an emergency operations facility located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site."
- Paragraph IV.E.8.c of Appendix E of 10 CFR Part 50 establishes minimum capabilities for an EOF.

### 2.2 Regulatory Guidance

- NUREG-0696, "Functional Criteria for Emergency Response Facilities," published February 1981 (Reference 3), describes the facilities and systems to be used by nuclear power plant licensees to improve responses to emergencies.



- NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," published in November 1980 (Reference 4), in Section II.H, "Emergency Facilities and Equipment," Evaluation Criterion 2, references NUREG-0696 as guidance for the establishment of an emergency operations facility. In addition, NUREG-0654, Section II.G, "Public Education and Information," Evaluation Criterion 3, provides guidance for the establishment of designated points of contact and physical locations for use by news media during an emergency.
- Office of Nuclear Security and Incident Response (NSIR)/Division of Preparedness and Response (DPR) Interim Staff Guidance (ISG) document NSIR/DPR-ISG-01, Revision 0, "Emergency Planning for Nuclear Power Plants," published in November 2011 (Reference 5), provides updated guidance for addressing emergency planning requirements for nuclear power plants based on changes to emergency preparedness regulations in 10 CFR 50.47 and Appendix E to 10 CFR Part 50, which were published in the *Federal Register* (FR) on November 23, 2011 (76 FR 72560) (referred to hereafter as the 2011 Final Rule).

### 3.0 TECHNICAL EVALUATION

#### 3.1 Background

The NRC has incrementally approved the use of the Coatesville EOF for Limerick, Peach Bottom, and TMI. The Commission did not object to the NRC staff's proposed approval of the use of the Coatesville EOF for both Limerick and Peach Bottom in the Staff Requirements Memorandum (SRM) to SECY-90-072, "Location of the Combined Emergency Operations Facility for Peach Bottom and Limerick Nuclear Power Plants," dated March 21, 1990 (Reference 6). The NRC staff approved the consolidation of the TMI EOF into the Coatesville EOF based on the Commission's approval documented in the SRM to SECY-03-0033, "Revised AmerGen's Request to Consolidate the Three Mile Island Unit 1 Emergency Operations Facility (EOF) into the Combined EOF for Peach Bottom Atomic Power Station (PBAPS) and Limerick Generating Station (LGS)," dated March 18, 2003 (Reference 7).

The Coatesville EOF building also provides space for a joint JIC used to support the Limerick, Peach Bottom, and TMI sites. Prior Commission approval is not required per NRC regulations for consolidating or locating a JIC more than 25 miles from a nuclear power reactor site.

#### 3.2 NRC Staff Evaluation

The purpose of an EOF is to provide a facility from which the licensee can manage the overall licensee emergency response during an event, including coordinating radiological and environmental assessments, determining protective actions, and communicating and coordinating with Federal, State, and local agencies. This facility complements other licensee emergency response facilities such as the Technical Support Center (TSC), which is located onsite at each respective site. The TSC is a facility from which the licensee staff provides plant management and technical support to plant operations personnel during emergency conditions, relieves the reactor operators of peripheral duties and communications not directly related to reactor system manipulations, prevents congestion in the control room, and performs EOF functions until the EOF is staffed and ready to respond. EOF functions can be fulfilled by each respective site's TSC under emergency response conditions, if required.

The NRC staff considered relevant regulations and guidance documents in its evaluation of Exelon's request to relocate the Calvert Cliffs EOF/JIC and consolidate it with the Coatesville EOF. In particular, under 10 CFR 50.47(b)(8), an emergency plan must meet the following standard: "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."

The NRC amended its EOF regulations as part of the 2011 Final Rule, which was developed, in part, in response to Commission direction in the SRM to SECY-04-0236, "Southern Nuclear Operating Company's Proposal to Establish a Common Emergency Operating Facility at its Corporate Headquarters," dated February 23, 2005 (Reference 8). The SRM stated, in part:

The staff should consider revising 10 CFR Part 50 to make the requirements for EOFs more performance-based to allow other multi-plant licensees to consolidate their EOFs, if those licensees can demonstrate their emergency response strategies will adequately cope with an emergency at any of the associated plants.

As such, paragraph IV.E.8 of Appendix E to 10 CFR Part 50 was revised under the 2011 Final Rule to establish the following minimum capabilities for an EOF:

- The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves;
- The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves; and
- The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site.

In accordance with paragraph IV.E.8.b of Appendix E to 10 CFR Part 50, a licensee with an EOF located more than 25 miles from a nuclear power reactor site must also have an additional facility closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site. This near-site facility must meet the following requirements in paragraph IV.E.8.b of Appendix E to 10 CFR Part 50, which were also added under the 2011 Final Rule:

- Space for members of an NRC site team and Federal, State, and local responders;
- Additional space for conducting briefings with emergency response personnel;
- Communication with other licensee and offsite emergency response facilities;
- Access to plant data and radiological information; and
- Access to copying equipment and office supplies.

The NRC's issuance of the guidance document, NUREG-0696, in 1981, established criteria for the NRC staff to use in evaluating whether an applicant/licensee met the then-existing requirements of paragraph IV.E.8 of Appendix E to 10 CFR Part 50 for an EOF. Section 4, "Emergency Operations Facility," of NUREG-0696 provided compliance criteria for the EOF in the following nine categories:

- Functions (Section 4.1);
- Location, Structure, and Habitability (Section 4.2);
- Staffing and Training (Section 4.3);
- Size (Section 4.4);
- Radiological Monitoring (Section 4.5);
- Communications (Section 4.6);
- Instrumentation, Data System Equipment, and Power Supplies (Section 4.7);
- Technical Data and Data System (Section 4.8); and
- Records Availability and Management (Section 4.9).

While retaining the nine categories of the EOF criteria in NUREG-0696, Section 4, the guidelines in several categories were subsequently supplemented as part of the 2011 Final Rule with the guidelines in NSIR/DPR-ISG-01, Section IV.I, "Emergency Operations Facility – Performance-Based Approach." Exelon evaluated the Coatesville EOF using these nine categories in Enclosure 1, "Evaluation of Proposed Changes," to the LAR. As such, the NRC staff evaluated the proposed Calvert Cliffs EOF consolidation using the nine categories in Section 4 of NUREG-0696, as supplemented by Section IV.I of NSIR/DPR-ISG-01.

### 3.2.1 Functions

Under Section 3.1, "Functions," in Enclosure 1 to the LAR, Exelon discusses how the Coatesville EOF provides the facilities and capability to: (1) manage the overall licensee emergency response; (2) coordinate radiological and environmental assessments; (3) determine recommended public protective actions; (4) perform offsite notifications to State and local agencies; (5) coordinate event, plant, and response information provided to public information staff for dissemination to the media and the public; (6) staff and activate the facility within timeframes and at emergency classification levels defined in the licensee's emergency plan; (7) coordinate emergency response activities with Federal, State, and local agencies; (8) locate NRC and offsite agency staff closer to the affected sites because the EOF is greater than 25 miles from the sites; (9) obtain and display key plant data and radiological information for each plant that the EOF serves; (10) analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee staff and offsite agency responders for each type of unit or plant; and (11) effectively respond to and coordinate response efforts for events occurring simultaneously at more than one site.

Furthermore, Exelon states that an advantage of the Coatesville EOF being located near the Exelon Nuclear Corporate Offices in Kennett Square, Pennsylvania, is that the Coatesville EOF Emergency Response Organization (ERO) staff includes the expertise of Exelon corporate personnel. This includes important groups such as Fleet Emergency Preparedness, Radiological Engineering, Safety Analysis, and Probabilistic Risk Assessment, as well as individuals who have a wide range of expertise.

While a drill involving simultaneous events at more than one site is not required by NRC regulations, in Attachment 2, "Updated Summary of Regulatory Commitments," to its supplemental letter dated January 11, 2019, Exelon states, in part:

Exelon will conduct a confirmation Emergency Preparedness two-site simultaneous drill involving CCNPP and one of Exelon's stations located in Pennsylvania (LGS or PBAPS) to demonstrate that there is no loss in EP

[emergency preparedness] functions or capabilities resulting from the proposed changes. The drill will include participation from each affected site's TSC, OSC [Operations Support Center], Simulator or Control Cell. The NRC and affected offsite emergency response organizations (e.g., Federal, State and Local agencies) will be invited to observe and/or participate in this drill. The drill will include the following specific criteria:

- CCNPP will have an event affecting both units.
- CCNPP will escalate the event on one unit.
- One CCNPP unit will progress to a General Emergency.
- One Pennsylvania unit will have an event which will ultimately escalate to a General Emergency.

The Emergency Management Network (EMNet) system will be installed for CCNPP prior to implementation of the proposed EOF relocation and consolidation. The EMNet system is the primary notification system used at the Coatesville EOF. This system will be installed for CCNPP prior to implementation of the proposed EOF relocation and consolidation.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that, with the proposed relocation and consolidation of the Calvert Cliffs EOF with the Coatesville EOF, the Coatesville EOF would continue to meet the functional requirements for an EOF, including in the event of emergencies at more than one of the sites served by the Coatesville EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.2 Location, Structure, and Habitability

#### *Location*

The Coatesville EOF is located at 175 North Caln Road in Coatesville, Pennsylvania, which is 14.7 driving miles from the Exelon Nuclear Corporate Offices in Kennett Square, Pennsylvania. The proximity to the Exelon Nuclear Corporate Offices allows corporate support and management personnel to rapidly staff the Coatesville EOF.

The Coatesville EOF currently supports emergency response to an emergency declared at the Limerick, Peach Bottom, and TMI sites, and has demonstrated its capabilities to effectively perform the designated EOF function for these sites located more than 25 miles from the Coatesville EOF during previous exercises observed by NRC regional inspectors. Exelon states that the location, size, and layout of the Coatesville EOF will continue to meet the emergency plan staffing and equipment requirements to carry out overall strategic direction for onsite and support operations.

The NRC staff also evaluated the following considerations in determining the adequacy of the relocation of the Calvert Cliffs EOF, including the JIC function, and consolidation into the Coatesville EOF.

### *Offsite Agreement*

The regulations at 10 CFR 50.47(b)(3) require, in part, arrangements to accommodate State and local staff at the licensee's EOF. In Enclosure 4, "Offsite Response Agency Letters of Concurrence," of the LAR, Exelon provided signed letters from the following agencies indicating that they concur with the proposed consolidation of the Calvert Cliffs EOF/JIC with the Coatesville EOF:

- Calvert County Board of County Commissioners;
- Maryland Emergency Management Agency;
- Maryland Department of the Environment;
- Department of Emergency Services, Dorchester County, Maryland;
- St. Mary's County Government;
- St. Mary's County, Department of Emergency Services and Technology;
- Maryland Department of Natural Resources, Power Plant Assessment Division; and
- Commonwealth of Pennsylvania, Department of Environmental Protection.

Per the "Memorandum of Understanding Between the Department of Homeland Security/Federal Emergency Management Agency [FEMA] and Nuclear Regulatory Commission Regarding Radiological Emergency Response, Planning, and Preparedness," dated December 7, 2015 (Reference 9), FEMA makes findings and determinations as to the adequacy and capability of implementing offsite radiological emergency response plans and communicates those findings and determinations to the NRC. By letter dated November 30, 2018 (Reference 10), FEMA provided the following:

With respect to CCNPP, the Maryland Emergency Management Agency (MEMA), Maryland Department of the Environment (MDE), and Calvert County Emergency Management will continue to send representatives to the EOF/JIC upon activation of the JIC. According to their plans the St. Mary's and Dorchester County Emergency Management Agencies do not send anyone to the EOF/JIC; therefore, we have found that the offsite plans and procedures are not negatively impacted by the above changes. Although the distance from the CCNPP to the proposed Coatesville location (115 air miles) is substantial, the response distance for MEMA and MDE are substantially less and should not result in an adverse response time. Calvert County response time will increase substantially (2 hours 40 minutes approximately) to the Coatesville EOF. FEMA finds that the offsite plans and procedures are not negatively impacted by the [proposed] changes.

Based on its review of the docketed information, including FEMA's evaluation of the impact of the proposed EOF relocation/consolidation on offsite emergency preparedness plans, the NRC staff finds that the Coatesville EOF would continue to meet the functional requirements for an EOF, including in the event of emergencies at more than one of the sites served by the Coatesville EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### *Impact on NRC's Incident Response*

As previously stated, the Coatesville EOF currently supports the Limerick, Peach Bottom, and TMI sites. As discussed in the LAR, no significant changes have been made to the Coatesville EOF that would impact the NRC's response and staffing of the facility. In Section 3.1 of Enclosure 1 to the LAR, Exelon states that there is a dedicated conference room provided for the NRC in the Coatesville EOF. A diagram of the Coatesville facility, provided in Enclosure 2 to the LAR, "Facility Photographs and Diagrams," illustrates designated conference areas for both NRC and FEMA responders. As an existing facility supporting EOF functions for the Limerick, Peach Bottom, and TMI sites, the Coatesville EOF has demonstrated a capability to support Federal responders and effectively integrate with licensee ERO personnel.

Paragraph IV.E.8.b of Appendix E to 10 CFR Part 50 requires that provisions be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the site for an EOF located more than 25 miles from a nuclear power reactor site.

Exelon stated that it has arranged for and established a near-site response facility/location for Calvert Cliffs at the College of Southern Maryland, Prince Frederick Campus, which is located approximately 11 miles from Calvert Cliffs. This facility includes a multi-purpose room for establishing an alternative facility, a staging area for personnel, a room for the NRC, a helicopter landing area, parking lots for Calvert Cliffs personnel parking, storage closet space for equipment and materials, phones, phone lines, internet access, bathroom facilities, and a room for offsite agency officials. Calvert Cliffs staff has full access to designated areas, providing over 7,000 square feet of useable space. Procedural guidance will ensure that the near-site response facility for Calvert Cliffs is made operational and available in a timely manner for the NRC and offsite agencies. Exelon further states that a liaison will be available at the facility to orient arriving NRC and offsite agency officials.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that the Coatesville EOF would continue to meet the functional requirements for an EOF, including in the event of emergencies at more than one of the sites served by the Coatesville EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### *Structure*

Section 4.2 of NUREG-0696, as supplemented by Table 2, "Relation of EOF Location to Habitability Criteria," to Section IV.I of NSIR/DPR-ISG-01, provides guidance stating that for an EOF located at or beyond 10 miles of the site's TSC, the structure be "Well engineered for design life of plant." Footnote 2 to Table 2 provides an example of "well engineered" as referring to the applicable Uniform Building Code, and states that the structure must be able to withstand adverse conditions of high winds (other than tornados) and floods, referencing a 100-year recurrence frequency as an acceptable design basis.

The building's structure, which contains both the Coatesville EOF and JIC, was previously found acceptable as part of the NRC staff's evaluation for the relocation of the Limerick and Peach Bottom EOFs, and subsequently the relocation of the TMI near-site EOF, to the existing Coatesville EOF, which was approved by the Commission in the SRMs to SECY-90-072 and SECY-03-0033, respectively. The staff is not aware of any significant modifications to the

building's structure since 2003 that would adversely impact the Coatesville EOF's structural integrity or any adverse structural impacts from severe winds or flooding.

Based on this understanding and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that the physical structure of the Coatesville EOF would continue to be consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

#### *Habitability*

Section 4.2 of NUREG-0696, as supplemented by Table 2 to Section IV.I of NSIR/DPR-ISG-01, provides guidance for the ventilation standards and protection factor for a radiological release. Because the Coatesville EOF is located beyond 10 miles from the respective nuclear power reactor sites it supports, EOF functions are not expected to be impacted by a radiological release from any Exelon site due to the distance from each respective site. In these situations, the applicable criterion in Table 2 of NSIR/DPR-ISG-01 states that no specialized ventilation systems or protection factor are needed. As such, the NRC staff finds that the habitability of the Coatesville EOF would continue to be consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

#### 3.2.3 Staffing and Training

Section 4.3 of NUREG-0696, as supplemented by Section IV.I of NSIR/DPR-ISG-01, provides guidance on EOF staffing and training to provide for the overall management of licensee resources and the continuous evaluation and coordination of licensee activities during and after an accident. In addition, Section 4.3 to NUREG-0696 provides guidance on the conduct of periodic EOF activation drills in accordance with the licensee's emergency plan.

Based on the NRC staff's evaluation of Enclosure 1 to the LAR against Section B.5, "Emergency Response Organization Positional Responsibilities," of the Exelon Nuclear Standard Emergency Plan, the staffing and activation of the Coatesville EOF would remain unchanged. The Coatesville EOF staff currently includes personnel that have demonstrated the ability to effectively manage overall licensee emergency response, coordinate radiological and environmental assessment, determine recommended public protective actions, and interface with offsite officials, based on NRC-observed exercises in support of the Limerick, Peach Bottom, and TMI sites. Section 3.3 of Enclosure 1 to the LAR states that experienced personnel from the Exelon Nuclear Corporate office in Kennett Square, Pennsylvania, would continue to perform designated EOF functions after the implementation of the proposed relocation and consolidation efforts.

The staff determined, based on its review of Enclosure 1 to the LAR that the associated training and drill requirements for EOF staff positions in the Coatesville EOF in response to an emergency declaration at the Calvert Cliffs site would remain consistent with those for the current Coatesville EOF as described in Section N, "Drill and Exercise Program," and Section O, "Emergency Response Organization Training Program," of the Exelon Nuclear Standard Emergency Plan. In Section 3.1, "Functions," and Section 3.3, "Staffing and Training," of Enclosure 1 to the LAR, Exelon states that the EOF staff will receive training on the applicable characteristics of Calvert Cliffs, which will include instruction on the pressurized water reactor technologies related to Calvert Cliffs. Exelon further states that the Coatesville EOF staff will

receive Calvert Cliffs-specific training on release in progress determination, release paths, dose assessment, and protective action recommendation (PAR) determination prior to implementation of the changes supporting the Calvert Cliffs relocation and consolidation with the Coatesville EOF. In the supplemental letter dated January 11, 2019, Exelon states that the EOF positions of Technical Advisor, Radiation Protection Manager, and Dose Assessment Coordinator will be trained to perform their respective functions for all of the plant designs supported by the Coatesville EOF.

As part of the NRC's Reactor Oversight Process, under Nuclear Energy Institute (NEI) 99-02, Revision 7, "Regulatory Assessment Performance Indicator Guideline," dated August 31, 2013 (Reference 11), the ERO performance indicator (PI) is included under the emergency preparedness cornerstone, which allows both the licensee and the NRC staff to verify the licensee's continued ability to meet the performance-based consolidated EOF criteria, to remain proficient in skills required to perform EOF functions for the reactors of various designs within the Exelon fleet, and to adequately cope with an emergency at any of the Exelon sites supported by the Coatesville EOF. The PI tracks the participation of ERO members assigned to fill key positions in performance enhancing experiences and ensures that the risk-significant aspects of classification, notification, and PAR development are evaluated and included in the PI process. The PI also ensures that utilities with common EOFs, where personnel are assigned to the key positions that support multiple nuclear sites, are monitored to ensure that each receives a meaningful opportunity to gain proficiency. As part of its review, the staff verified under the NRC's internal Reactor Oversight Process website that these PIs reflected satisfactory performance for Exelon sites that the Coatesville EOF currently supports.

Exelon has demonstrated the ability to staff the Coatesville EOF within 60 minutes of an event declaration requiring activation during periodic augmentation drills, as reviewed during previous emergency preparedness inspections in accordance with NRC Inspection Procedure 71114.03, "Emergency Response Organization Staffing and Augmentation System." Per the Exelon Nuclear Standard Emergency Plan, periodic ERO augmentation drills will continue to be used to verify the licensee's response capabilities. Exelon Procedure EP-AA-122-100, "Drill and Exercise Planning and Scheduling," also specifies that multi-site event scenarios are tested at the Coatesville EOF at least once every 8-year drill/exercise cycle, which will also be reviewed periodically by NRC regional inspectors.

Based on its review of the docketed information, previous inspection findings, and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that the Coatesville EOF would continue to meet the staffing and training criteria for an EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.4 Size

Section 4.4 of NUREG-0696, as supplemented by Section IV.I to NSIR/DPR-ISG-01, provides guidance that the EOF building will be large enough to provide adequate work space for personnel assigned to the EOF as specified in the licensee's emergency plan, at the maximum level of occupancy without crowding, as well as provide separate office space to accommodate NRC staff and other Federal personnel.



Section 3.4, "Size," of Enclosure 1 to the LAR specifies that the Coatesville facility measures approximately 182 feet x 122 feet providing a total of over 20,000 square feet (ft<sup>2</sup>) of space, divided between the EOF and the JIC. Section 3.4 of Enclosure 1 to the LAR also states, in part:

Adequate space is allocated for accident assessment, radiation assessment, offsite monitoring, offsite communications, command and control, conferences, NRC response team, offsite response agencies (Federal, State, and Local (if needed)), and storage. ...Phones and special communications equipment are provided as needed throughout the facility at personnel work stations. Individuals needing access to plant data are provided access via Personal Computers (PCs). Space is provided for ready access to functional displays of EOF data through use of computer monitors, projection screens, and video display monitors.

Previous exercises, which have been observed by NRC regional inspectors, continue to demonstrate that the size of the Coatesville EOF provides adequate working space for the number of ERO staff, as specified in the Exelon Nuclear Standard Emergency Plan, including State and NRC responders, at a level of occupancy supporting an event at more than one reactor site without crowding. Exelon is not proposing to change the staffing levels and capabilities for the existing Coatesville EOF, as currently described in the Exelon Nuclear Standard Emergency Plan, which would alter this conclusion.

Paragraph IV.E.8.c.(3) of Appendix E to 10 CFR Part 50 requires the capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the EOF serves more than one site. However, neither NRC requirements nor guidance establish the minimum number of simultaneous events at multiple sites that a consolidated EOF/JIC needs to support. Recognizing that there is a possibility for simultaneous events to occur at the sites that the Coatesville EOF serves, Exelon discusses, in its submittal, that the Coatesville EOF will be able to support simultaneous events at two of the sites it serves.

As part of its submittal, Exelon reviewed historical information on event declarations for an Alert classification and above over a 16-year period (i.e., June 2, 2002, through June 1, 2018) to determine the occurrence of simultaneous declared emergencies at any of the Exelon sites that would use the Coatesville EOF. Based on the best available information, Exelon found a total of four Alert ECLs involving the Exelon plants located in Pennsylvania. There were no Alert or higher ECL (emergency classification level) events reported for Calvert Cliffs during the period. There were no instances during this period involving simultaneous events at multi sites. While capable of supporting simultaneous events at multiple sites, this review of historical data indicates that the operating sites using the Coatesville EOF have not had a need to activate the EOF for simultaneous events during their operation.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that the Coatesville EOF would continue to be of sufficient size to accommodate and support Federal, State, local, and licensee ERO personnel, equipment, and documentation for an EOF, which is consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.5 Radiological Monitoring

Section 4.5 of NUREG-0696, as supplemented by Section IV.I of NSIR/DPR-ISG-01, and Section 3.5, "Radiological Monitoring," of Enclosure 1 to the LAR address radiological monitoring with respect to the Coatesville EOF/JIC. The guidance in NUREG-0696 specifies that to ensure adequate radiological protection of EOF personnel, radiation monitoring systems should be provided in the EOF if located within 10 miles of a nuclear power reactor site. No NRC-licensed nuclear power reactor site is located within 10 miles of the Coatesville EOF. The location of the near-site facility at the College of Southern Maryland is approximately 11 miles from Calvert Cliffs. As such, personnel located in the Coatesville EOF and at the near-site location are not expected to be impacted by a radiological release from any nuclear power reactor site. Therefore, radiological monitoring capabilities described in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, are not needed to meet the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.6 Communications

Section 4.6 of NUREG-0696 provides guidance that the EOF shall have reliable voice communications facilities to the site's TSC and control room, the NRC, and State and local emergency operations centers, and describes the primary functions of the EOF voice communications facilities.

In Section 3.6, "Communication," of Enclosure 1 to the LAR, Exelon describes the communications capabilities of the Coatesville EOF as follows:

The Coatesville EOF has reliable voice communication facilities to station TSCs, Control Rooms, the NRC, State and Local Emergency Operations Centers (EOCs), Nuclear Steam System Supplier (NSSS) suppliers, FEMA, and the U.S. Department of Energy (DOE). The existing communications systems will also be used to support CCNPP and include the following:

- Exelon installed telephone system (to manage licensee emergency response resources and communications with CCNPP TSC Emergency Communicators) with access to the Exelon internal phone system, public switched network, and long distance;
- EMNet notify phones (for State/County emergency notifications);
- NRC Emergency Telecommunications System telephones (Emergency Notification System, Health Physics Network, Protective Measures Counterpart Link, Reactor Safety Counterpart Link, Management Counterpart Link, and Operations Center local area network (LAN));
- Satellite telephones;
- Facsimile (fax) transmission capability; and
- Commercial cell phone backup.

Exelon further states that the EMNet will serve as the primary means of communication, enabling the four Exelon sites that use the Coatesville EOF to effectively notify the required State and local offsite response organizations in both Maryland and Pennsylvania of changes in event classification and PARs. Existing commercial telephone and telefax capabilities serve as the designated backup means of communications in the event of an EMNet failure for State and local notifications with cell phones serving as an additional backup.

The current communications system at the Coatesville EOF includes the Exelon installed telephone system (with access to the Exelon internal phone system, public switched network, and long distance); EMNet Notify phones; NRC Emergency Telecommunications System telephones; Satellite Telephones; Facsimile (fax) transmission capability; and Commercial cell phone backup. The existing communications systems would also be used to support Calvert Cliffs.

Backup power to voice and data communications in the Coatesville EOF is provided by a backup diesel generator. The testing of communications systems at the Coatesville EOF will continue to be performed as described in Section F.3, "Communications Testing," to the Exelon Nuclear Standard Emergency Plan to ensure the reliable, timely flow of information between all parties having an emergency response role.

Field monitoring team (FMT) communications for the Exelon sites currently using the Coatesville EOF (Limerick, Peach Bottom, and TMI), employ radios and satellite phones. Because radio is not effective over the range from Calvert Cliffs to the Coatesville EOF, communications between the Coatesville EOF and the Calvert Cliffs FMTs will employ satellite phones with cell phone backup. In Section 3.6, "Communication," of Enclosure 1 to the LAR, Exelon stated that in July 2018, the satellite phone communications between the Coatesville EOF and the Calvert Cliffs FMTs were successfully tested. However, as a backup, Exelon provides each FMT with a commercial cell phone, which includes a Wireless Priority Service card for prioritized access and processing in all nationwide and several regional cellular networks.

The staff confirmed that the description of the EOF facilities and equipment related to communications for the Coatesville EOF remains consistent with the EOF facilities and equipment currently described in Section F, "Emergency Communications," to the Exelon Nuclear Standard Emergency Plan and equivalent to the existing Calvert Cliffs EOF.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF and the Calvert Cliffs site, the NRC staff finds that the Coatesville EOF would continue to have sufficient internal and external telecommunications capabilities to support EOF functions for simultaneous events involving multiple sites, based on the functions as currently described in the Exelon Nuclear Standard Emergency Plan. As such, the staff concludes that the Coatesville EOF would continue to provide reliable EOF voice and data communications, and information collection consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.7 Instrumentation, Data System Equipment, and Power Supplies

Section 4.7 of NUREG-0696 provides guidance on equipment to gather, store, and display data needed in the EOF to analyze and exchange information on plant conditions, as well as criteria to perform these functions.

In Section 3.7 of Enclosure 1 to the LAR, Exelon addresses the Coatesville EOF in relation to "Instrumentation, Data System Equipment, and Power Supplies." Exelon provides that the plant communications network will be represented by the Exelon Enterprise Network (EEN) connection, which already exists between the Calvert Cliffs facility and the Coatesville EOF/JIC. This existing network will be utilized to transmit plant data from the Calvert Cliffs site to the Coatesville EOF. To comply with the Cyber Security Rule (10 CFR 73.54), all plant data will be encrypted between the Coatesville EOF/JIC plant data workstation and the Calvert Cliffs server

systems. Exelon states that this system will be tested and verified operable prior to the implementation of the approved amendment. Exelon has established an availability goal for the EEN that exceeds the 0.01 unavailability goal identified in NUREG-0696. The Coatesville EOF/JIC will have access to the same data points that are available to the operators in the control room and emergency responders in the TSC and OSC, including the Safety Parameter Display System (SPDS) data points. The Coatesville EOF/JIC video display system will display the graphics on screens in the main EOF/JIC area.

The workstations and related EEN Local Area Network (LAN)/Wide Area Network (WAN) equipment require alternating current (AC) power to operate. Exelon states that the LAN equipment housed within the Coatesville EOF is on backup power with an emergency diesel generator feeding the Coatesville EOF. The facility also has an uninterruptible power supply (UPS) designed to eliminate the necessity to restart computers in the EOF/JIC while loads are transferred from the commercial power supply to the backup diesel generator in the event of a loss of commercial power. Since the Coatesville EOF is located offsite of Calvert Cliffs, its electrical equipment loads do not affect any safety-related power source. Loss of primary commercial power does not cause loss of any stored data vital to EOF functions.

Plant records and historical data from the site are accessible through the Fleet Configuration Management System at the Coatesville EOF. This information can be accessed by the Coatesville EOF staff, as needed.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF and Calvert Cliffs site, the NRC staff finds that the Coatesville EOF would continue to have sufficient instrumentation, data system equipment, and power supplies to support EOF functions for simultaneous events involving multiple sites, based on the functions as currently described in the Exelon Nuclear Standard Emergency Plan. As such, the staff concludes that the Coatesville EOF would continue to have instrumentation, data system equipment, and power supplies consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.8 Technical Data and Data Systems

Section 4.8 of NUREG-0696 provides guidance on the technical data system needed to receive, store, process, and display information sufficient to perform assessments of the actual and potential onsite and offsite environmental consequences of an emergency condition.

In Section 3.8, "Technical Data and Data System," of Enclosure 1 to the LAR, Exelon states that the Coatesville EOF has the capability to receive, store, process, and display information needed to perform assessments of actual and potential offsite environmental consequences of an emergency at Calvert Cliffs. The EOF data set includes radiological, meteorological, and other environmental data needed to assess environmental conditions, coordinate radiological monitoring activities, and recommend implementation of offsite protective actions. The communication data network (described in Section 3.7 of Enclosure 1 to the LAR) will allow the display of data points that cover Type A, B, C, D, and E variables discussed in Section 4.8 of NUREG-0696, including meteorological variables required for dose assessment.

The Coatesville EOF/JIC will have access to the same data points that are available to the operators in the control room and emergency responders in the Calvert Cliffs TSC and OSC, including SPDS data points. All operating Exelon sites use the Unified Radiological

Assessment System for Consequence Analysis (RASCAL) Interface (URI). URI is a replacement for the user interface normally delivered with the computer software RASCA) maintained and distributed by the NRC.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF and Calvert Cliffs site, the NRC staff finds that the Coatesville EOF would continue to have sufficient technical data and data systems to support EOF functions for simultaneous events involving multiple sites, based on the functions as currently described in the Exelon Nuclear Standard Emergency Plan. As such, the staff concludes that the Coatesville EOF would continue to have technical data and data systems consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.2.9 Records Availability and Management

Section 4.9 of NUREG-0696 provides guidance on the ready access to up-to-date plant records, procedures, and emergency plans needed to exercise overall management of licensee emergency response resources.

In Section 3.9, "Records Availability and Management," of Enclosure 1 to the LAR, Exelon states that the Coatesville EOF has the capability to maintain hard copies of key reference materials for Calvert Cliffs and that station design documentation, plant drawings, procedures, etc., are available electronically via the LAN connection to the Fleet Configuration Management System.

Based on a review of the LAR, the NRC staff confirmed that the description of the key reference materials is consistent with that referenced in Section H.2 to the Exelon Nuclear Standard Emergency Plan and would be kept up-to-date and readily available in the Coatesville EOF.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the Coatesville EOF, the NRC staff finds that the Coatesville EOF would continue to have sufficient records availability and management criteria to support EOF functions for simultaneous events involving multiple sites, based on the functions as currently described in the Exelon Nuclear Standard Emergency Plan. As such, the staff concludes that the Coatesville EOF would continue to have records availability and management criteria consistent with the guidance in NUREG-0696, as supplemented by NSIR/DPR-ISG-01, and the requirements of 10 CFR 50.47(b) and paragraph IV.E.8 of Appendix E to 10 CFR Part 50.

### 3.3 Calvert Cliffs Joint Information Center

Exelon plans to align JIC operations such that in an exercise or emergency, the JIC, co-located with the Coatesville EOF, will serve as the JIC for the Calvert Cliffs site. The Emergency Public Information Organization functions from the JIC and EOF in preparing and releasing utility information about the emergency event.

In Section 3.1 of Enclosure 1 to the LAR, Exelon states that the JIC is the facility in which media personnel gather to receive information related to the emergency event, and the location where approved news releases are provided to the media for dissemination to the public. Exelon also states that news releases are coordinated between the EOF and JIC personnel and State and/or Federal representatives in the JIC. Calvert Cliffs currently has a near-site JIC that is located with its EOF.

Section 3.1 of Enclosure 1 to the LAR further states that the existing JIC in the Coatesville EOF building, which currently supports the Peach Bottom, Limerick, and TMI sites, would continue to perform the following functions in support of an emergency at the Calvert Cliffs site:

- Serve as the primary location for accumulating accurate and current information regarding the emergency conditions and writing news releases;
- Provide work space and phones for public information personnel from the State, counties, NRC, FEMA, and industry-related organizations;
- Provide telephones for use by the news media personnel; and
- Provide responses to media inquiries about an emergency.

To perform these functions, Exelon states that the JIC is equipped with seating, lighting, and visual aids to allow for public announcements and briefings to be given to the news media and provides work space and phones for public information personnel from the State, local, NRC, FEMA, industry-related organizations, and news media personnel.

Based on its review of the docketed information and observations by regional inspectors as part of previous exercises at the JIC, co-located with the Coatesville EOF, the NRC staff finds that the facility has equipment, communications, and staffing sufficient to support public information functions, as described in the Exelon Nuclear Standard Emergency Plan, for simultaneous events involving multiple sites. As such, the staff concludes that the JIC, co-located with the Coatesville EOF, would continue to be consistent with the guidance in NUREG-0654 and the requirements of 10 CFR 50.47(b)(7).

### 3.4 NRC Staff Conclusion

The NRC staff finds that, with the proposed relocation and consolidation of the Calvert Cliffs EOF/JIC with the Coatesville EOF/JIC, the Coatesville EOF/JIC would continue to fulfill necessary emergency response functions and meet applicable regulations in 10 CFR 50.47 and Appendix E to 10 CFR Part 50 and would continue to be consistent with criteria set forth in NUREG-0654 and NUREG-0696, as supplemented by NSIR/DPR-ISG-01. Given the technological capabilities of the facility, the facility's capacity to address multi-site events, the staffing of an ERO comprised of experienced and diverse personnel, and the longstanding NRC and State experience with the facility, the staff finds that the further consolidation of the Calvert Cliffs EOF/JIC into the Coatesville EOF/JIC would continue to effectively support Exelon's emergency response at all of the sites that the facility serves. Additionally, in SECY-19-0031, "Exelon Generation Company, LLC, Request for Emergency Operations Facility Consolidation," dated March 25, 2019 (Reference 12), the staff recommended approval of the request to relocate and consolidate the Calvert Cliffs EOF with the Coatesville EOF<sup>1</sup> and the Commission approved the request in the SRM to SECY-19-0031, dated April 17, 2019 (Reference 13). Therefore, the staff concludes that there is reasonable assurance that protective measures can and will be

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<sup>1</sup> Prior Commission approval is not required per NRC regulations for consolidating or locating a JIC more than 25 miles from a nuclear power reactor site.

implemented in the event of a radiological emergency at any of the sites that the Coatesville EOF/JIC serves and that the licensee's proposed Calvert Cliffs EOF/JIC consolidation with the Coatesville EOF/JIC, as detailed in the application dated August 30, 2018, as supplemented by letter dated January 11, 2019, is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments on May 29, 2019. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 because the amendments approve revision to the emergency plan, which is required for operation of the facility. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on December 18, 2018 (83 FR 64896). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

#### 7.0 REFERENCES

1. Helker, David P., Exelon Generation Company, LLC., letter to U.S. Nuclear Regulatory Commission (NRC), "License Amendment Request Regarding Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation," dated August 30, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18242A067).
2. Helker, David P., Exelon Generation Company, LLC., letter to NRC, Response to Request for Additional Information, "License Amendment Request Regarding Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation," dated January 11, 2019 (ADAMS Accession No. ML19014A044).
3. U.S. Nuclear Regulatory Commission, NUREG-0696, "Functional Criteria for Emergency Response Facilities, Final Report," February 1981 (ADAMS Accession No. ML051390358).



4. U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (ADAMS Accession No. ML040420012).
5. U.S. Nuclear Regulatory Commission, NSIR/DPR-ISG-01, Rev. 0, "Interim Staff Guidance – Emergency Planning for Nuclear Power Plants," November 2011 (ADAMS Accession No. ML113010523).
6. U.S. Nuclear Regulatory Commission, SRM-SECY-90-072, "Location of the Combined Emergency Operations Facility for Peach Bottom and Limerick Nuclear Power Plants," dated March 21, 1990 (ADAMS Accession No. ML010170102).
7. U.S. Nuclear Regulatory Commission, SRM-SECY-03-0033, "Revised AmerGen's Request to Consolidate the Three Mile Island Unit 1 Emergency Operations Facility (EOF) into the Combined EOF for Peach Bottom Atomic Power Station (PBAPS) and Limerick Generating Station (LGS)," dated March 18, 2003 (ADAMS Accession No. ML030780051).
8. U.S. Nuclear Regulatory Commission, SRM-SECY-04-0236, "Southern Nuclear Operating Company's Proposal to Establish a Common Emergency Operating Facility at its Corporate Headquarters," dated February 23, 2005 (ADAMS Accession No. ML050550131).
9. U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, "Memorandum of Understanding Between the Department of Homeland Security/Federal Emergency Management Agency and Nuclear Regulatory Commission Regarding Radiological Emergency Response, Planning, and Preparedness," dated December 7, 2015 (ADAMS Accession No. ML15344A371).
10. Hickman, Alfred L, and Quinn, Vanessa E., Federal Emergency Management Agency(FEMA) email and letter to Joseph Anderson, NRC, "Request for FEMA Consultation on Exelon Proposal to Relocate and Consolidate Emergency Operations Facilities for Calvert Cliffs Nuclear Power Plant, Units 1 and 2," dated November 30, 2018 (ADAMS Accession No. ML18338A086).
11. Nuclear Energy Institute, NEI 99-02, Revision 7, "Regulatory Assessment Performance Indicator Guideline," dated August 31, 2013 (ADAMS Accession No. ML13261A116).
12. U.S. Nuclear Regulatory Commission, SECY-19-0031, "Exelon Generation Company, LLC, Request for Emergency Operations Facility Consolidation," dated March 25, 2019 (ADAMS Accession No. ML18331A245).
13. U.S. Nuclear Regulatory Commission, SRM-SECY-19-0031, "Exelon Generation Company, LLC, Request for Emergency Operations Facility Consolidation," dated April 17, 2019 (ADAMS Accession No. ML19107A354).

Principal Contributors: J. Arce, NSIR  
M. Norris, NSIR

Date of Issuance: August 26, 2019



SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 330 AND 308 RE: RELOCATION AND CONSOLIDATION OF THE EMERGENCY OPERATIONS FACILITY AND JOINT INFORMATION CENTER FOR THE CALVERT CLIFFS NUCLEAR POWER PLANT (EPID L-2018-LLA-0241) DATED AUGUST 26, 2019

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MNorris, NSIR

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