



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

September 13, 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; CALVERT CLIFFS INDEPENDENT SPENT FUEL STORAGE INSTALLATION; JAMES A. FITZPATRICK NUCLEAR POWER PLANT; AND NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 — ISSUANCE OF AMENDMENTS TO REVISE THE EMERGENCY RESPONSE ORGANIZATION STAFFING REQUIREMENTS (EPID L-2018-LLA-0240)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the following enclosed amendments in response to the Exelon Generation Company, LLC application dated August 31, 2018 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML18249A096), as supplemented by letter dated February 22, 2019 (ADAMS Accession No. ML19053A585):

1. Amendment No. 331 to Renewed Facility Operating License No. DPR-53 and Amendment No. 309 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, respectively,
2. Amendment No. 328 to Renewed Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant; and
3. Amendment No. 238 to Renewed Facility Operating License No. DPR-63 and Amendment No. 177 to Renewed Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station, Units 1 and 2, respectively.

The amendments revise the emergency plans by changing the emergency response organization staffing requirements for each of these facilities.

The requested emergency plan changes also encompassed the independent spent fuel storage installations (ISFSIs). The Calvert Cliffs ISFSI has a site-specific license, but it is included in the emergency plan for the Calvert Cliffs Nuclear Power Plant. Accordingly, changes to the emergency plan for the Calvert Cliffs ISFSI are properly addressed by amendments to the power plant licenses, and a separate amendment to the Calvert Cliffs ISFSI materials license is not required. The ISFSIs at the James A. FitzPatrick Nuclear Power Plant and the Nine Mile Point Nuclear Station are covered under general licenses.

A copy of the NRC staff's Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Blake A. Purnell, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-317, 50-318, 72-8, 50-333,
72-012, 50-220, 50-410, and
72-1036

Enclosures:

1. Amendment No. 331 to DPR-53
2. Amendment No. 309 to DPR-69
3. Amendment No. 328 to DPR-59
4. Amendment No. 238 to DPR-63
5. Amendment No. 177 to NPF-69
6. 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. 331
Renewed License No. DPR-53

1. The U.S. Nuclear Regulatory Commission (NRC or Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (Exelon) dated August 31, 2018, as supplemented by letter dated February 22, 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, Renewed Facility Operating License No. DPR-53 is hereby amended to authorize revision to the emergency plan as set forth in Exelon's application dated August 31, 2018, as supplemented by letter dated February 22, 2019, and evaluated in the NRC staff's safety evaluation for this amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented on or before December 31, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/Eric J. Benner for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: September 13, 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. 309
Renewed License No. DPR-69

1. The U.S. Nuclear Regulatory Commission (NRC or Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (Exelon) dated August 31, 2018, as supplemented by letter dated February 22, 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, Renewed Facility Operating License No. DPR-69 is hereby amended to authorize revision to the emergency plan as set forth in Exelon's application dated August 31, 2018, as supplemented by letter dated February 22, 2019, and evaluated in the NRC staff's safety evaluation for this amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented on or before December 31, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/Eric J. Benner for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: September 13, 2019



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

EXELON FITZPATRICK, LLC

AND

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 328
Renewed License No. DPR-59

1. The U.S. Nuclear Regulatory Commission (NRC or Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (Exelon) dated August 31, 2018, as supplemented by letter dated February 22, 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, Renewed Facility Operating License No. DPR-59 is hereby amended to authorize revision to the emergency plan as set forth in Exelon's application dated August 31, 2018, as supplemented by letter dated February 22, 2019, and evaluated in the NRC staff's safety evaluation for this amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented on or before December 31, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/Eric J. Benner for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: September 13, 2019



UNITED STATES
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WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 238
Renewed License No. DPR-63

1. The U.S. Nuclear Regulatory Commission (NRC or Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (Exelon) dated August 31, 2018, as supplemented by letter dated February 22, 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, Renewed Facility Operating License No. DPR-63 is hereby amended to authorize revision to the emergency plan as set forth in Exelon's application dated August 31, 2018, as supplemented by letter dated February 22, 2019, and evaluated in the NRC staff's safety evaluation for this amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented on or before December 31, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/Eric J. Benner for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: September 13, 2019



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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 177
Renewed License No. NPF-69

1. The U.S. Nuclear Regulatory Commission (NRC or Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (Exelon) dated August 31, 2018, as supplemented by letter dated February 22, 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, Renewed Facility Operating License No. NPF-69 is hereby amended to authorize revision to the emergency plan as set forth in Exelon's application dated August 31, 2018, as supplemented by letter dated February 22, 2019, and evaluated in the NRC staff's safety evaluation for this amendment.

3. This license amendment is effective as of the date of its issuance and shall be implemented on or before December 31, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/Eric J. Benner for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: September 13, 2019



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 331 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53,

AMENDMENT NO. 309 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69,

AMENDMENT NO. 328 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-59,

AMENDMENT NO. 238 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-63,

AND AMENDMENT NO. 177 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-69

EXELON GENERATION COMPANY, LLC

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-317, 50-318, 72-8, 50-333, 72-012, 50-220, 50-410, and 72-1036

1.0 INTRODUCTION

By application dated August 31, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18249A096), as supplemented by letter dated February 22, 2019 (ADAMS Accession No. ML19053A585), Exelon Generation Company, LLC (Exelon) submitted a license amendment request (LAR) for the Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Calvert Cliffs); James A. FitzPatrick Nuclear Power Plant (FitzPatrick); and the Nine Mile Point Nuclear Station, Units 1 and 2 (NMP) (collectively, the facilities or sites). The amendments would revise the emergency plans by changing the emergency response organization (ERO) staffing requirements for each of these sites.

The emergency plans for the Exelon facilities consist of the Standardized Radiological Emergency Plan and site-specific emergency plan annexes. The Exelon Standardized Radiological Emergency Plan contains information that is common across the Exelon fleet, and it will be affected by the proposed changes. Exelon has requested similar changes to its emergency plans for most of its fleet. However, this review only considers the changes for the facilities requested in Exelon's August 31, 2018, application. The proposed emergency plan changes for other Exelon facilities will be reviewed separately.

The LAR provided separate enclosures for each site (Enclosures 1–3), which provided an evaluation of the proposed changes for the site, a marked-up copy of the proposed site

emergency plan, a clean copy of the proposed site emergency plan, and an ERO task analysis. Enclosure 4 to the LAR provided a summary of regulatory commitments. Enclosure 5 provided information regarding discussions with the States of Maryland and New York regarding the proposed changes.

Exelon's supplement dated February 22, 2019, was in response to a U.S. Nuclear Regulatory Commission (NRC or the Commission) staff request for additional information dated January 24, 2019 (ADAMS Accession No. ML19025A120). The supplement 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* on October 9, 2018 (83 FR 50696).

2.0 REGULATORY EVALUATION

2.1 Description of Proposed Changes

For each facility, the proposed changes would revise the ERO staffing composition and increase the staff augmentation times for certain ERO positions from 60 minutes to 90 minutes following the declaration of an alert or higher emergency classification level (ECL). Additionally, Exelon proposed to relocate the listing of the ERO minimum staffing requirements from the site-specific annexes to the Exelon Standardized Radiological Emergency Plan. Some positions would also be relocated to site-specific emergency plan implementing procedures (EPIPs) as positions for full augmentation. Exelon considers full-augmented staff as those ERO positions that provide support for the minimum staff in response to an emergency.

A summary of the proposed ERO staffing changes for each site is provided in Section 2.1 of LAR Enclosures 1–3. Tables 1 and 2 below provide a summary of the proposed ERO on-shift and minimum staff positions, respectively. The proposed changes for each major functional area of the emergency plan are discussed in Section 3.2 of this safety evaluation (SE).

Table 1: Summary of Proposed ERO On-Shift Staff Positions

Emergency Plan Function	Proposed On-Shift Staff Positions
Command and Control	Shift Emergency Director
Communications	(1) Shift Communicator
Radiation Protection (RP)	(2) RP Technicians
Supervision of RP Staff	Shift Emergency Director
Dose Assessment	Shift Dose Assessor (collateral duty)
Emergency Classifications	Emergency Classification Advisor (collateral duty)
Engineering	Shift Technical Advisor (collateral duty)
Security	Per the security plan
Fire Fighting	Per the fire protection plan

Table 2: Summary of Proposed ERO Minimum Staff Positions
(response times are 60 minutes unless otherwise noted)

Technical Support Center (TSC)	
Station Emergency Director	Core Thermal/Hydraulic Engineer
Operations Manager (Emergency Classification Advisor)	Mechanical Engineer
Emergency Notification System (ENS) Communicator	Electrical Engineer
RP Manager	Security Coordinator
Emergency Operations Facility (EOF)	
Corporate Emergency Director	Dose Assessment Coordinator
State/Local Communicator	Computer Specialist (90 minutes)
RP Manager	
Joint Information Center (JIC)	
Corporate Spokesperson (90 minutes)	Public Information Director (90 minutes)
JIC Director (90 minutes)	
Operations Support Center (OSC)	
OSC Director	RP Technician #5 (90 minutes)
Offsite Field Team Personnel	RP Technician #6 (90 minutes)
Offsite Field Team Driver	Electrical Maintenance Technician
Offsite Field Team Personnel (90 minutes)	Instrumentation and Controls (I&C) Technician (90 minutes)
Offsite Field Team Driver (90 minutes)	Mechanical Maintenance Technician
Onsite Field Team member (onsite surveys) #1	Electrical Maintenance Supervisor/Lead (90 minutes)
RP Technician #1	Mechanical Maintenance Supervisor/Lead (90 minutes)
RP Technician #2	I&C Supervisor/Lead (90 minutes)
RP Technician #3	RP Supervisor/Lead (90 minutes)
RP Technician #4 (90 minutes)	

Currently, the Calvert Cliffs and NMP emergency plan annexes require personnel assembly and accountability to be initiated at the declaration of an alert or higher ECL. Exelon proposed to revise the Calvert Cliffs and NMP emergency plan annexes to only require personnel assembly and accountability to occur at the declaration of a site area emergency or higher ECL.

Exelon currently maintains separate EROs for FitzPatrick and NMP. Exelon proposed to have a common offsite ERO to respond to the shared EOF and JIC for an event that affects NMP, FitzPatrick, or both stations.

2.2 Regulatory Requirements

The planning standards in Paragraph 50.47(b) of Title 10 of the *Code of Federal Regulations* (10 CFR) establish the requirements that the onsite and offsite emergency response plans must meet for the NRC staff to make a finding that there is reasonable assurance that the licensee can and will take adequate protective measures in the event of a radiological emergency. In accordance with 10 CFR 50.47(b)(1), the primary responsibilities for emergency response by the nuclear facility licensee must have been assigned, and each principal response organization

must have staff to respond and to augment its initial response on a continuous basis. The on-shift and augmented ERO staffing is addressed under 10 CFR 50.47(b)(2), which states:

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

In addition, Section IV.A, "Organization," of Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," to 10 CFR Part 50 states, in part, that "[t]he organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization."

Under 10 CFR 50.47(b)(10), a licensee must develop a range of protective actions for the plume exposure pathway emergency planning zone for emergency workers and the public.

2.3 Regulatory Guidance

NRC Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors" (ADAMS Accession No. ML090440294), provides guidance on methods acceptable to the NRC staff for implementing 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. Revision 2 of Regulatory Guide 1.101 endorses Revision 1 to NUREG-0654/FEMA-REP-1 (NUREG-0654), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (ADAMS Accession No. ML040420012), which provides specific acceptance criteria for complying with the standards set forth in 10 CFR 50.47(b). These criteria provide a basis for NRC licensees and State and local governments to develop acceptable radiological emergency plans and to improve emergency preparedness.

Evaluation Criteria II.B.1 and II.B.5 in NUREG-0654 address the planning standard in 10 CFR 50.47(b)(2). Evaluation Criterion II.B.1 states: "Each licensee shall specify the onsite emergency organization of plant staff personnel for all shifts and its relation to the responsibilities and duties of the normal shift complement." Evaluation Criterion II.B.5 states, in part:

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, "Minimum Staffing Requirements for Nuclear Power Plant Emergencies." The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

By letter dated June 12, 2018 (ADAMS Accession No. ML18022A352), the NRC staff provided alternative guidance to Evaluation Criterion II.B.5 in NUREG-0654, Revision 1, for minimum ERO on-shift and augmentation staffing. The letter stated, in part:

The NRC has revised Section II.B, Table B-1 of NUREG-0654, based in part on comments received from the public on the draft Revision 2 of NUREG-0654, located at www.regulations.gov under Docket ID FEMA-2012-0026. The revised ERO staffing guidance has been finalized, and the NRC will include it when the entire NUREG-0654, Revision 2, is ready for issuance. Until then, the NRC staff is making available on an interim basis the ERO on-shift and augmentation staffing plan (attached). Regardless of whether a licensee chooses to use the guidance contained in Revision 1 of NUREG-0654, the attached, or an alternative approach, licensees are still required to adhere to 10 CFR 50.54(q) when revising their ERO staffing plans.

Henceforth, this alternative guidance will be referred to as the “revised NUREG-0654 Table B-1” in this SE.

Section II.J of NUREG-0654 provides evaluation criteria for the planning standard in 10 CFR 50.47(b)(2) regarding protective actions for emergency workers and the public. Evaluation Criterion II.J.4 states, in part, that the licensee shall provide for the evacuation of onsite non-essential personnel in the event of a site area emergency or general emergency. Evaluation Criterion II.J.5 states that the “licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter.”

Regulatory Issue Summary 2016-10, “License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation,” dated August 5, 2016 (ADAMS Accession No. ML16124A002), provides examples of the scope and detail of information that should be provided in an LAR for ERO staffing and augmentation changes.

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed Exelon’s regulatory and technical analyses in support of the proposed changes to the Exelon Standardized Emergency Plan and the respective site-specific annexes for Calvert Cliffs, FitzPatrick, and NMP, as described in the LAR, as supplemented. As part of its review, the staff compared Exelon’s proposed emergency plan changes to the revised NUREG-0654 Table B-1.

3.1 Enhancements

The NRC staff considered the overall enhancements in technology, information availability, and training described in Section 3.1 of LAR Enclosures 1–3 and summarized below. These enhancements enable the main control room (MCR) staff to perform major functions and tasks more efficiently, which supports the proposed changes in ERO staffing levels and response times.

Plant Process Computer System

For each facility, Exelon stated that the plant process computer (PPC) system supports the safety parameter display system functions, and data collection, data processing, accounting, alarming, and logging functions. An auxiliary function of the PPC is to transmit plant data to remote locations, including the TSC and EOF.

Exelon stated that the safety and plant parameter display systems provide a concise display of critical plant variables to the MCR personnel to aid them in rapidly and reliably determining the safety status of the plant. Parameters displayed are the quantitative and qualitative measures to indicate the accomplishment or maintenance of critical safety functions. Information needed to assess the status of the plant safety parameters is obtained by the measurement of key plant variables, to include: reactivity control, reactor core cooling and heat removal, reactor coolant system integrity, containment conditions, and radiation control.

Exelon stated that MCR personnel have the capability to quickly monitor all critical plant parameters from a single workstation. Exelon stated that the benefits of the PPC include:

- Improved plant monitoring capability to support the emergency director function;
- Workstations have the capability of being programmed for automated response (e.g., indicating a critical parameter during events that may challenge that parameter);
- Data manipulation functions require fewer key strokes and are more easily performed;
- The sequence of events recorder provides plant data in real-time, rather than after the event;
- Much of the PPC functionality can be made available to any desktop computer through the plant's site-wide intranet; and
- Increased capabilities of PPC have enhanced timeliness of monitoring and assessing plant conditions.

Each site also uses a digital plant viewer system that permits personnel to view conditions in the plant where cameras are installed. The digital plant viewer allows personnel to access live-time dose rate data in areas with installed area radiation monitors, with no radiation protection (RP) support required to use the digital plant viewer.

Dose Assessment

Exelon stated that radiological dose assessment has benefited from technological advances that make this function simpler and less time consuming to perform. Exelon currently uses the Unified RASCAL Interface for dose assessment, which provides greater efficiency than previous programs. The plant display systems have also improved, allowing access to more data points that are needed within dose assessment. Redundant dose assessment computers have been installed, and each site has an individual plant data screen dedicated to the needs of dose assessment inputs.

Automated ERO Call-Out Systems

Exelon stated that the automated call-out and paging systems have streamlined processes for activation of the ERO, which now can occur through a Web-based or phone-based system to initiate rapid notification of ERO members. The system includes a primary activation system, as well as backup capability, to ensure uninterrupted operation.

Procedure Improvements

Exelon stated that emergency action levels have been revised to simplify the emergency classification process. This includes the use of an overview matrix of emergency action level initiating conditions and threshold values, which streamlines the process of evaluating emergency action levels against plant conditions. Additionally, emergency operating

procedures have been improved and generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operating crews.

Training

Exelon stated that training is used to strategically drive and sustain improved performance at each site through the application of the systematic approach to training. This approach ensures that training is conducted to the industry-accepted standards required to achieve and maintain accreditation by the National Academy for Nuclear Training. The licensed operator requalification training program includes the realistic integration of emergency response into performance evaluations.

Radiation Protection Improvements

Exelon identified several improvements to RP technology and tools associated with in-plant protection actions. Access to the radiological controlled area is controlled electronically without interfacing with an RP technician. Automated whole-body monitors or handheld friskers are provided for contamination monitoring without the need to interface with an RP technician. In addition, personnel are provided with self-alarming dosimeters.

3.2 Major Functional Areas

Exelon provided justification (Section 3.2 of LAR Enclosures 1–3) for the proposed changes to the Calvert Cliffs, FitzPatrick, and NMP emergency plans that included a detailed review of each major functional area and task described in the revised NUREG-0654 Table B-1. The NRC staff's review of the proposed changes to the Calvert Cliffs, FitzPatrick, and NMP emergency plans, based on major functional areas and tasks, is described below.

Currently, Exelon's ERO for each site consists of personnel in the MCR, TSC, OSC, and EOF. The revised NUREG-0654 Table B-1 recommends activation of the EOF following the declaration of a site area emergency or general emergency. However, Exelon proposed to activate the EOF within 60 minutes of declaration of an alert or higher ECL, concurrent with the activation of the TSC and OSC. By mobilizing the EOF at the declaration of an alert, Exelon indicated that certain emergency plan functions (e.g., dose assessment, State and local communications) can be established only at the EOF and do not need to be duplicated at the TSC.

3.2.1 Command and Control

The purpose of the command and control function is to: (1) provide overall ERO command and control, until relieved; (2) approve emergency action level and/or protective action recommendation (PAR) classifications, until relieved; and (3) authorize personnel dose extensions, until relieved. For each site, Exelon provided its analysis of the command and control function in Section 3.2.1 of LAR Enclosures 1–3.

The proposed staffing for command and control is consistent with the revised NUREG-0654 Table B-1, with one difference. Specifically, Exelon proposed to staff the EOF emergency director position within 60 minutes of an alert or higher ECL, while the revised NUREG-0654 Table B-1 has this position staffing within 60 minutes of a site area emergency or general emergency. The NRC staff considers this difference to be an enhancement because it will

ensure that the EOF ERO will be mobilized and available, should an alert classification escalate to a site area emergency or general emergency.

As discussed in Section 3.4.1 of LAR Enclosures 1–3, Exelon also proposed to revise the description of the turnover process in the site emergency plans to include the transfer of non-delegable duties for PARs and State/local notifications directly from the MCR to the EOF. Under the current emergency plans, the MCR has the option to transfer PAR and State/local notification responsibilities directly to the EOF or to the TSC on an interim basis, should the EOF be unavailable. Exelon proposed to revise its emergency plans to no longer describe the capability to transfer PARs and State/local notifications to the TSC on an interim basis. The NRC staff finds that this revision will have no impact on timeliness or resources since the EOF and TSC are both staffed within 60 minutes of the declaration of an alert or higher ECL and will continue to have staff available to perform the functions. The turnover of command and control of emergency plan functions will occur through a conference line between the MCR, TSC, and EOF simultaneously, resulting in the prompt transfer of emergency plan functions from the MCR to the TSC or EOF. Based on this information, the NRC staff finds the proposed change to the turnover description acceptable.

The NRC staff reviewed Exelon's proposed changes to the command and control function and found them acceptable based on the information discussed above. With the proposed changes, Exelon's emergency plans will be consistent with the revised NUREG-0654 Table B-1, except for the staffing the EOF emergency director position within 60 minutes of an alert. The NRC staff determined that staffing the EOF emergency director position within 60 minutes of an alert is acceptable because an alert is a lower ECL than specified in the revised Table B-1. In addition, the NRC staff found the proposed changes to the description of the turnover process in the emergency plans acceptable. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to effective and timely command and control of Exelon's emergency response.

3.2.2 Communications

The purpose of the communications function is to communicate emergency action level and PAR classifications to offsite agencies, including the NRC, until relieved. For each site, Exelon provided its analysis of the communications function in Section 3.2.2 of LAR Enclosures 1–3.

Currently, Calvert Cliffs, FitzPatrick, NMP Unit 1, and NMP Unit 2 each have one shift communicator to perform the on-shift communications function. Exelon did not propose any changes to the on-shift communications function, which is consistent with the revised NUREG-0654 Table B-1. Although the revised NUREG-0654 Table B-1 includes a note regarding collateral duties for the on-shift communicator, Exelon stated that this note is not needed since no collateral duties are assigned to its on-shift communicators.

The revised NUREG-0654 Table B-1 recommends that, following the declaration of an alert or higher ECL, the TSC be staffed with two communicators within 60 minutes and an additional communicator, as needed, within 90 minutes. In addition, Table B-1 recommends the staffing of one communicator in the EOF within 60 minutes of declaring a site area emergency or general emergency. Exelon proposed to maintain the ENS communicator position in the TSC and the State/local communicator position in the EOF, and both positions will be staffed within 60 minutes of the declaration of an alert or higher ECL. Table B-1 states that a second communicator should be located in the TSC as part of minimum staffing for communicating with

offsite response organizations. However, Exelon stated, and the NRC staff agrees, that locating the State/local communicator in the EOF is acceptable since the EOF will be activated simultaneously with the TSC at an alert or higher ECL. Continuity will not be lost in the transfer of communications with State and local response organizations. Thus, a TSC communicator to support communications with offsite response organizations is not needed. Communications with the NRC via the ENS circuit will remain in the TSC and not transfer to the EOF.

Currently, the following positions are also identified as minimum staff in the site emergency plans or EIPs for the communications function:

Calvert Cliffs: TSC director, EOF director, and TSC radiation monitoring system communicator

FitzPatrick: TSC director, emergency operation center communicator, State liaison, and county liaison

NMP: TSC director, EOF director, and EOF health physics network communicator

Exelon is proposing to recategorize these additional positions as full-augmentation staff, and they will be relocated to EIPs. These positions are not identified as minimum staff positions in the revised NUREG-0654 Table B-1. Exelon indicated that these additional positions do not directly perform actions necessary to accomplish emergency preparedness functions, but rather, support other personnel performing required functions and overall facility operations. Therefore, these positions, as currently defined in its emergency plans, would not be considered as part of the ERO minimum staff needed to implement the emergency plans. Exelon proposed to include a statement in the staffing tables noting that additional communicators will be staffed in the TSC and EOF as needed. This will ensure that, if required, additional communicators can respond to support communications between Exelon and the NRC. Based on the information provided by Exelon, the NRC staff finds the recategorization of these additional positions as full-augmentation staff positions to be acceptable.

The NRC staff reviewed Exelon's proposed changes to the communications function and found them acceptable based on the information discussed above. Where the proposed changes differed from the revised NUREG-0654 Table B-1, the staff found that Exelon provided adequate justification for those differences. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to maintaining timely and effective communications with the NRC and offsite response organizations.

3.2.3 Radiation Protection

The purpose of the RP function is to: (1) provide qualified health physics coverage for responders accessing potentially unknown radiological environments during emergency conditions; (2) provide in-plant surveys; and (3) control dosimetry and radiological controlled area access. For each site, Exelon provided its analysis of the RP function in Section 3.2.3 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 states that the RP function should be staffed by two qualified RP personnel for a single unit site or one per unit for a multi-unit site. Exelon stated that this function is currently staffed by the following on-shift personnel:

Calvert Cliffs: One RP technician assigned to in-plant surveys, one RP technician assigned in-plant protective actions, and one chemistry technician

FitzPatrick: One RP technician and one chemistry technician (listed as the "RP technician (RP/chem)" in the site emergency plan staffing table)

NMP: Two RP technicians (one per unit) and two chemistry technicians (one per unit)

Exelon proposed to maintain one RP staff member per unit (i.e., two at Calvert Cliffs, two at NMP, and one at FitzPatrick) on shift to perform the RP function and tasks for protection coverage for responders, in-plant surveys, dosimetry, and radiologically controlled area access. As discussed below, Exelon proposed to eliminate the on-shift chemistry technicians. Consistent with the revised NUREG-0654 Table B-1, Exelon proposed to just list the RP technicians on shift for this function, without providing a specific breakdown of the assigned tasks. Although FitzPatrick is single-unit site, it is located adjacent to NMP, with common fencing and easily within walking distance. NMP and FitzPatrick have shared EIPs, training programs, and corporate staff. NMP RP technicians would be provided access to FitzPatrick and could support FitzPatrick in an emergency, if needed. As discussed in SE Section 3.2.5, FitzPatrick proposed to maintain another individual dedicated to performing dose assessment activities. Based on this information, the NRC staff found the proposed changes to the on-shift RP function acceptable.

The revised NUREG-0654 Table B-1 identifies three RP technicians, in addition to the RP personnel on shift, staffing the OSC within 60 minutes of the declaration of an alert or higher ECL. Table B-1 also lists an additional three RP technicians staffing the OSC within 90 minutes of the declaration of an alert or higher ECL. Currently, the Calvert Cliffs and NMP emergency plans designate six minimum staff RP technicians as required to augment and support the emergency plan major tasks of in-plant surveys and in-plant protective actions within 60 minutes. The FitzPatrick emergency plan designates eight RP technicians as required to augment and support the emergency plan major tasks of in-plant, onsite, and offsite surveys and in-plant protective actions within 60 minutes. Thus, the current responsibilities for the eight RP technicians at FitzPatrick include responsibilities for both the RP function and the field monitoring teams (FMTs) function discussed in SE Section 3.2.11.

Exelon proposed that the augmentation for the RP function with six RP technicians occur in two stages, at 60 and 90 minutes, consistent with the revised NUREG-0654 Table B-1. Therefore, a total of eight qualified RP technicians will be available for the RP function, considering both the on-shift and augmented staff. Exelon stated that technological advances in protection coverage for responders, in-plant surveys, dosimetry, and radiologically controlled area access support the additional time proposed. Based on this, the NRC staff finds the proposed changes to the minimum staff for the RP function acceptable.

Exelon proposed to remove chemistry personnel from the on-shift and minimum staffing requirements. Exelon stated that it performed on-shift staffing analyses in accordance with Section IV.9 of Appendix E to 10 CFR Part 50 to ensure that the chemistry major task is not required per station procedures prior to augmentation. No chemistry sampling tasks were identified as time critical in any of the analyzed events. The chemistry/radiochemistry function is not included in the revised NUREG-0654 Table B-1. Exelon stated that the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at its plants. Early indications of fuel damage can be identified through

containment radiation monitors, core instrumentation, or effluent radiation monitors, all of which are available in the MCR. Based on this, the NRC staff finds the removal of the chemistry personnel from the on-shift and minimum staffing requirements acceptable.

The NRC staff reviewed Exelon's proposed changes to the RP function and found them acceptable based on the information discussed above. Where the proposed changes differed from the revised NUREG-0654 Table B-1, the staff found that Exelon provided adequate justification for those differences. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the timely and effective performance of RP functions.

3.2.4 Supervision of Radiation Protection Staff and Site Radiation Protection

The purpose of the supervision of RP function is to: (1) evaluate and assess plant and offsite radiological data for the development of onsite and offsite PARs, until relieved; (2) provide onsite and offsite PARs to the applicable decision-maker, until relieved; (3) direct all RP activities, including FMT direction, until relieved; and (4) provide relevant information to applicable communicators who are communicating offsite PARs to offsite response organizations, until relieved. For each site, Exelon provided its analysis of the supervision of RP function in Section 3.2.4 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 identifies an operations shift manager to perform the supervision of RP function on shift, until relieved. The current site emergency plans do not specifically identify an on-shift position for this function, but Exelon proposed to assign this function to the shift emergency director, until relieved by the augmented staff. The NRC staff finds this proposed change acceptable because it aligns with the revised NUREG-0654 Table B-1.

The revised NUREG-0654 Table B-1 recommends that the supervision of RP function be augmented by a site RP coordinator in the TSC within 60 minutes of the declaration of an alert or higher ECL, and by an RP manager in the EOF within 60 minutes of the declaration of a site area emergency or general emergency. Currently, Exelon staffs both the TSC and EOF RP manager positions within 60 minutes of the declaration of an alert or higher ECL. The FitzPatrick emergency plan does not specifically identify the supervision of RP staff as a responsibility of the RP managers, so the proposed change would clarify the TSC and EOF RP manager positions for FitzPatrick. Therefore, the NRC staff finds this change acceptable. Exelon did not propose any changes for Calvert Cliffs and NMP for this function.

Exelon stated that the TSC RP manager would perform site-related duties, which would include actions to recommend onsite protective actions, to direct all RP activities at the site, and to evaluate and assess plant radiological data in the development of onsite protective actions. The TSC RP manager would also provide relevant information to applicable communicators who are transmitting offsite PARs to offsite response organizations. The EOF RP manager will perform duties that include actions to support evaluation of offsite radiological data in the development of onsite protective actions and offsite PARs, and to direct FMTs at the alert or higher ECL. The assigned major tasks are consistent with those stated in the revised NUREG-0654 Table B-1.

The NRC staff reviewed Exelon's proposed changes to the supervision of RP function and found them acceptable based on the information discussed above. With the proposed changes, Exelon's emergency plans will be consistent with the revised NUREG-0654 Table B-1, except

for the proposed staffing of the EOF RP manager position within 60 minutes of an alert. The NRC staff determined that staffing the EOF RP manager position within 60 minutes of an alert is acceptable because an alert is a lower ECL than specified in the revised Table B-1. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the effective supervision of the on-shift and augmented ERO RP functions.

3.2.5 Dose Assessments and Projections

The purpose of the dose assessment and projections function is to perform dose assessments and projections and provide input to the applicable PAR decision-maker, until relieved. For each site, Exelon provided its analysis of the dose assessment and projections function in Section 3.2.5 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 identifies an on-shift staff member for dose assessment and projections and clarifies that: “Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.” Currently, the site emergency plans do not specify on-shift staff for this function, but their EIPs assign an on-shift chemistry technician to perform the dose assessment function prior to augmentation of the ERO. Consistent with the revised NUREG-0654 Table B-1, Exelon proposed to add a shift dose assessor position to the emergency plan to perform the dose assessment and projections function. Exelon also proposed to add the clarification from the revised NUREG-0654 Table B-1 for this position to its Calvert Cliffs and NMP emergency plans. Exelon will not include this clarification for FitzPatrick because this position will not be a collateral duty for this site. The NRC staff finds these proposed changes acceptable because they are consistent with the revised NUREG-0654 Table B-1.

The revised NUREG-0654 Table B-1 recommends one dose assessment position to be staffed at the TSC within 60 minutes of the declaration of an alert or higher ECL, and another dose assessment position to be staffed at the EOF within 60 minutes of the declaration of a site area emergency or general emergency. Exelon proposes to staff the EOF with a dedicated dose assessment coordinator within 60 minutes of the declaration of an alert or higher ECL. The EOF dose assessment coordinator will perform duties that include performing dose assessments and projections and providing input to the applicable PAR decision-maker. Exelon would not staff the TSC for this function. Exelon proposed the following changes to the emergency plans to implement this proposal:

Calvert Cliffs: the EOF dose assessment function would be reassigned from the EOF RP manager to the dedicated EOF dose assessment coordinator

NMP: the position title for the EOF dose assessor would change to the EOF dose assessment coordinator

FitzPatrick: the TSC position for this function would be eliminated and the EOF dose assessment function would be reassigned from the RP manager to the dedicated EOF dose assessment coordinator

The NRC staff finds it acceptable to reassign the EOF dose assessment function to a dedicated EOF dose assessment coordinator because it is consistent with the revised NUREG-0654 Table B-1. Since the EOF is mobilized simultaneously with the respective station’s TSC, and

responsibility for dose assessment is transferred directly from the MCR to the EOF, Exelon stated, and the NRC staff agrees, that staffing a dose assessment position in the TSC is redundant.

The NRC staff reviewed Exelon's proposed changes to the dose assessment and projections function and found them acceptable based on the information discussed above. With the proposed changes, Exelon's emergency plans will be consistent with the revised NUREG-0654 Table B-1, except for the dose assessment position in the TSC. The NRC staff determined that a TSC dose assessment position is not needed because Exelon will staff the EOF dose assessment position within 60 minutes of the declaration of an alert and will transfer the responsibility for dose assessment directly from the MCR to the EOF. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the timely and effective performance of radiological dose assessments and projections.

3.2.6 Emergency Classifications

The purpose of the emergency classifications function is to evaluate plant conditions and recommend emergency classification, until relieved. For each site, Exelon provided its analysis of the emergency classifications function in Section 3.2.6 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 recommends an emergency classification advisor to perform this function on shift, and clarifies that: "Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time." Currently, the site emergency plans do not specify a separate emergency classifications function for the on-shift or augmenting minimum staff. Exelon proposed to assign this function to a pre-existing on-shift staff member (e.g., the shift technical advisor) as a collateral duty. The NRC staff finds the proposed change acceptable because it is consistent with the revised NUREG-0654 Table B-1.

The revised NUREG-0654 Table B-1 recommends that the on-shift emergency classification advisor be augmented by a second emergency classification advisor in the TSC within 60 minutes of the declaration of an alert of higher ECL. Exelon proposed to assign the TSC emergency classification advisor function to the TSC operations manager. The shift emergency director and station emergency director will continue to have the non-delegable command and control responsibility for emergency classification decisions. The on-shift and TSC emergency classification advisors will advise the shift emergency director and station emergency director, respectively. The NRC staff finds the proposed change acceptable because it is consistent with the revised NUREG-0654 Table B-1.

The NRC staff reviewed Exelon's proposed changes to the emergency classifications function and found them acceptable because these changes are consistent with the revised NUREG-0654 Table B-1. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the timely and accurate classification of emergency events.

3.2.7 Engineering

The purpose of the engineering function is to provide engineering coverage related to core/thermal hydraulics, electrical equipment, instrumentation and controls (I&C), and

mechanical equipment, until relieved. For each site, Exelon provided its analysis of the engineering function in Section 3.2.7 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 recommends a core/thermal hydraulics engineer to evaluate reactor conditions for the on-shift engineering function, and clarifies that: “Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.” Currently, the Calvert Cliffs emergency plan does not specify on-shift staff for the engineering function. For NMP and FitzPatrick, Exelon currently has the shift technical advisor satisfy the on-shift responsibilities for the plant system engineering, repair, and corrective actions function, which is recategorized as the engineering function in the revised Table B-1. Exelon proposed to revise the site emergency plans to identify the on-shift engineering function as a collateral duty satisfied by the shift technical advisor. The NRC staff finds this proposed change acceptable because it is consistent with the revised NUREG-0654 Table B-1.

The revised NUREG-0654 Table B-1 recommends that the TSC minimum staff for the engineering function consist of one core thermal/hydraulic engineer to support the evaluation of reactor conditions, one mechanical engineer for coverage of ERO-related mechanical equipment, and one electrical/I&C engineer for coverage of ERO-related electrical and I&C equipment. Currently, the site emergency plans identify these positions as minimum staff for the engineering function. Exelon proposes to retain these positions and staff them within 60 minutes from the declaration of an alert or higher ECL. The NRC staff finds the proposed minimum staff for the engineering function acceptable because it is consistent with the revised NUREG-0654 Table B-1.

The NMP emergency plan also identifies the TSC operations manager as supporting the engineering function. This position will be retained as minimum staff but is relocated to the emergency classification function (SE Section 3.2.6). The NRC staff finds this proposed change acceptable because it is consistent with the revised NUREG-0654 Table B-1.

The site emergency plans also include the following additional positions as minimum staff for the engineering function:

Calvert Cliffs: a second core thermal/hydraulic engineer and the EOF technical advisor

NMP: the EOF technical advisor

FitzPatrick: the TSC technical manager

Exelon proposed to recategorize these additional positions as full-augmented staff that will be included in EIPs. Exelon stated that these additional positions do not directly perform actions necessary to accomplish emergency plan functions but do support other ERO personnel. Exelon proposed that these positions, as currently defined in the site emergency plans, would not be considered as part of the ERO minimum staff needed to implement the emergency plans. The NRC staff finds that recategorizing these additional positions as full-augmentation positions is acceptable because it is consistent with the revised NUREG-0654 Table B-1 and these positions are not needed to accomplish the engineering function under the site emergency plans.

The NRC staff reviewed Exelon’s proposed changes to the engineering function and found them acceptable because these changes are consistent with the revised NUREG-0654 Table B-1.

Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the engineering function.

3.2.8 Security

For each site, Exelon provided its analysis of the security function in Section 3.2.8 of LAR Enclosures 1–3. The revised NUREG-0654 Table B-1 recommends that the on-shift security function be provided by security staffing per the site-specific security plan. For the on-shift security function, the current site emergency plans are consistent with the revised NUREG-0654 Table B-1, and Exelon has not proposed any changes.

The revised NUREG-0654 Table B-1 recommends that the on-shift security staffing should be augmented by a security coordinator in the TSC within 60 minutes of the declaration of an alert or higher ECL to coordinate security-related activities. For both Calvert Cliffs and NMP, Exelon proposed to recategorize the TSC security coordinator position (currently a full-augmentation position) as a minimum staff position. This position will be staffed within 60 minutes from the declaration of an alert or higher ECL. Exelon stated that this will ensure timely and effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary, as well as for security-related events and site personnel accountability. The NRC staff finds the proposed change acceptable because it is consistent with the revised NUREG-0654 Table B-1. Exelon did not propose any changes for FitzPatrick related to the security function since it is already consistent with the revised NUREG-0654 Table B-1.

The NRC staff reviewed Exelon's proposed changes to the security function and found them acceptable because these changes are consistent with the revised NUREG-0654 Table B-1. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the security function.

3.2.9 Repair Team Activities

For each site, Exelon provided its analysis of the repair team activities in Section 3.2.9 of LAR Enclosures 1–3. The revised NUREG-0654 Table B-1 indicates that an on-shift repair team is not needed to support the emergency plan. Exelon did not propose any changes for NMP related to the on-shift repair team activities since it is already consistent with the revised NUREG-0654 Table B-1. The Calvert Cliffs emergency plan does not specifically mention on-shift staff for repair team activities but does specify on-shift staff to fulfill the radwaste operator function as a collateral duty. The FitzPatrick emergency plan currently states that on-shift repair team activities will be provided by electrical maintenance and a radwaste operator. Exelon stated that due to the redundant and diverse design of the emergency core cooling systems, on-shift maintenance functionality is unnecessary. The NRC staff finds the proposed changes to the on-shift repair team activities acceptable because they are consistent with the revised NUREG-0654 Table B-1.

The revised NUREG-0654 Table B-1, identifies the following maintenance personnel that should respond to the OSC to support repair team activities:

- One electrician and one mechanic within 60 minutes of the declaration of an alert or higher ECL to provide support for emergency core cooling system equipment, event mitigation, and equipment repair.
- One I&C technician within 90 minutes of the declaration of an alert or higher ECL to provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C, if applicable.

Currently, Exelon's emergency plans identify two or three mechanical maintenance technicians, two electrical maintenance technicians, and one I&C technician to staff the OSC within 60 minutes from the declaration of an alert or higher ECL. Exelon proposed to revise the minimum staff repair team response to the OSC, consistent with the revised NUREG-0654 Table B-1. The NRC staff finds these changes to be acceptable because they are consistent with the revised NUREG-0654 Table B-1.

The NRC staff reviewed Exelon's proposed changes to the repair team activities and found them acceptable because these changes are consistent with the revised NUREG-0654 Table B-1. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to repair team activities.

3.2.10 Supervision of Repair Team Activities

For each site, Exelon provided its analysis of the supervision of repair team activities in Section 3.2.10 of LAR Enclosures 1–3. The revised NUREG-0654 Table B-1 recommends that a lead OSC supervisor staff the OSC within 60 minutes of the declaration of an alert or higher ECL, and four OSC supervisors staff the OSC within 90 minutes of the declaration of an alert or higher ECL. The latter OSC supervisors would oversee electrical, mechanical, I&C, and RP activities.

Currently, the site emergency plans identify the OSC director and either the assistant OSC director (Calvert Cliffs and NMP) or the TSC maintenance manager (FitzPatrick) as supervisory positions for repair and corrective actions, with the OSC director effectively managing maintenance resources upon activation of the OSC. Exelon proposed to recategorize the Calvert Cliffs and NMP assistant OSC director and the FitzPatrick TSC maintenance manager positions as full-augmented staff under EPIPs. Exelon proposed to add supervisors/lead technicians for electrical maintenance, mechanical maintenance, I&C maintenance, and RP as minimum staff positions for the OSC. These four positions would be staffed within 90 minutes from the declaration of an alert or higher ECL.

Exelon's proposal to allow lead technicians to fulfill the supervisory positions for maintenance and RP is a deviation from NUREG-0654 Table B-1. Exelon stated that its lead technicians under its maintenance and RP program are qualified, experienced craft technicians who successfully demonstrate the day-to-day leadership of the technician work force and act as leads on back shifts. Duties and responsibilities of lead technicians include training and development of other employees in performing preventive maintenance and routine equipment service activities. Basic qualifications for a lead technician include demonstrated reliability and responsibility and the ability to make quick and effective technical decisions, as well as

demonstrated situational leadership and environmental and safety stewardship. Exelon stated, and the NRC staff agrees, that the experience and qualification of the lead technicians for maintenance and RP would satisfy the requirements and the needs of the OSC for the supervision of repair team activities.

Exelon stated that the Calvert Cliffs and NMP assistant OSC directors and the FitzPatrick TSC maintenance manager support other personnel at the OSC or TSC, but do not directly perform actions necessary to accomplish emergency plan functions. Exelon stated that these positions, as currently defined in its emergency plans, would not be considered as part of the ERO minimum staff needed to implement the emergency plans. Based on this information, the NRC staff finds the recategorization of these positions as full-augmentation positions acceptable.

The NRC staff reviewed Exelon's proposed changes to the supervision of repair team activities and found them acceptable based on the information discussed above. Where the proposed changes differed from the revised NUREG-0654 Table B-1, the staff found that Exelon provided adequate justification for those differences. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the supervision of repair team activities.

3.2.11 Field Monitoring Teams

The revised NUREG-0654 Table B-1 recommends one onsite FMT and two offsite FMTs as minimum staff. Each FMT would consist of a driver and one qualified individual (i.e., a field monitor) to assess the area for radiation and contamination. Each field monitor would also provide RP coverage for the team as directed by the TSC site RP coordinator or EOF RP manager. The field monitors for the offsite FMTs would also provide radioactive plume tracking. The revised NUREG-0654 Table B-1 recommends that the onsite FMT and one offsite FMT be staffed within 60 minutes from the declaration of an alert or higher ECL. The revised NUREG-0654 Table B-1 also recommends that the second offsite team be staffed within 90 minutes from the declaration of an alert or higher ECL. For each site, Exelon provided its analysis of the FMTs in Section 3.2.11 of LAR Enclosures 1–3.

Currently, Calvert Cliffs and NMP each designate two RP technicians for onsite surveys, and FitzPatrick designates eight RP personnel for the RP functions, which include onsite surveys. Exelon proposed to perform onsite field monitoring with just one onsite field monitor responsible for radiological monitoring of the site's protected area. The onsite field monitor will be staffed within 60 minutes from the declaration of an alert or higher ECL. Exelon stated that the onsite FMT will not be staffed if the radiological conditions jeopardize the safety of the FMT. Exelon stated that a driver for the onsite FMT is not needed due to the size and configuration of the protected areas at each site, as they are easily traversed without the use of a vehicle. The NRC staff finds that Exelon's proposal to have one onsite FMT is acceptable because it is consistent with the revised NUREG-0654 Table B-1. In addition, the staff determined that it is not necessary for the onsite FMTs to have a driver because the protected area at each site can easily be traversed without the use of a vehicle.

Currently, Calvert Cliffs and NMP each have two offsite FMTs and FitzPatrick has one offsite FMT, and each offsite FMT is staffed within 60 minutes of the declaration of an alert or higher ECL. The offsite FMTs consist of a driver and a field monitor. For NMP and FitzPatrick, Exelon proposed two offsite FMTs that are shared between the two sites. For each site, the license proposed to have one offsite FMT respond within 60 minutes and the other offsite FMT respond

within 90 minutes of the declaration of an alert or higher ECL. The offsite FMTs will be under the control the EOF dose assessment coordinator or the EOF RP manager. The offsite field monitors would also provide RP coverage of the FMT as directed by the EOF RP manager. The NRC staff determined that the sharing of the FMTs at NMP and FitzPatrick is acceptable because these two sites are adjacent to each other. The staff finds the proposed changes to the offsite FMTs acceptable because they are consistent with the revised NUREG-0654 Table B-1.

Exelon stated that the field monitors will be qualified to assess radiation and contamination levels, but will not necessarily be qualified as RP technicians in accordance with the American National Standards Institute. The onsite field monitor will be under the direct supervision of the RP manager in the TSC. Exelon stated that the offsite field monitors do not need to be qualified in accordance with the American National Standards Institute as long as they are under the direct supervision of senior staff in the TSC or EOF. The NRC staff finds this acceptable because it is consistent with the guidance in Regulatory Issue Summary 2016-10.

The NRC staff reviewed Exelon's proposed changes to the FMTs and found them acceptable based on the information discussed above. Where the proposed changes differed from the revised NUREG-0654 Table B-1, the staff found that Exelon provided adequate justification for those differences. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to FMTs.

3.2.12 Media Information

The purpose of the media information function is to manage and coordinate media information related to the event. The Exelon communications department currently supports each site in responding to media inquiries at all times for any ECL. The communications department coordinates responses with Exelon management and respective emergency response facilities and issues press releases, as appropriate. For each site, Exelon provided its analysis of the media information function in Section 3.2.12 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 recommends that JIC staff assigned to address media inquiries be capable of performing this function within 60 minutes of the declaration of an alert or higher ECL, but notes that this function does not need to be performed at the TSC or OSC. Table B-1 further recommends additional staff to perform JIC functions be capable of performing their function within 60 minutes of the declaration of a site area emergency or general emergency. For the JIC, Table B-1 notes: "Emergency response facility activation timing is not the concern; it is whether the facility staff is performing the stated function(s) within the time specified." The revised Table B-1 does not specify an on-shift capability and does not identify specific staff positions for the minimum staff.

For Calvert Cliffs, the JIC staff is currently identified as minimum staff in the EIPs, but is not listed as minimum staff in the emergency plan. The Calvert Cliffs EIPs identify the company spokesperson, JIC manager, media monitor/rumor control coordinator, logistics manager, and technical advisor as minimum staff, which would activate the JIC within 120 minutes of the declaration of an alert or higher ECL. For NMP, the emergency plan currently identifies the company spokesperson, JIC manager, media/rumor control coordinator, logistics manager, and technical advisor as minimum staff, which would activate the JIC within 60 minutes of the declaration of an alert or higher ECL. For FitzPatrick, the emergency plan currently identifies the company spokesperson, JIC director, and media/rumor control coordinator as minimum

staff, which would activate the JIC within 60 minutes of the declaration of an alert or higher ECL. The public information director position is currently described in the Exelon Standardized Radiological Emergency Plan, but is not identified as minimum staff in the emergency plans.

Exelon proposed to specify the corporate spokesperson, JIC director, and public information director as minimum staff in the emergency plan with a response time of within 90 minutes of the declaration of an alert or higher ECL. At Calvert Cliffs and NMP, the JIC manager position would be renamed as the JIC director to be consistent with the current Exelon Standardized Radiological Emergency Plan. Thus, the corporate spokesperson and JIC director positions are retained as minimum staff for each facility. The public information director position would be identified as minimum staff in the revised emergency plan. The other JIC positions currently in the site emergency plans will be relocated to EPIPs. The Exelon communications department will provide the JIC functions until the JIC is activated and turnover of responsibilities occurs, and it may continue to provide some JIC functions after the JIC is activated.

Exelon stated that the corporate spokesperson would staff the JIC to maintain command and control of the facility and conduct periodic briefings with the news media. The JIC director would staff the JIC to coordinate with the State, local, and Federal agencies to maintain factual consistency of information conveyed. In addition, the public information director position will oversee the issuance of news releases and media monitoring/rumor control; however, this function may be performed remotely by taking advantage of advances in communications technology.

Exelon stated that the media/rumor control coordinator, logistics manager, and technical advisor positions support other personnel at the JIC, but do not directly perform actions necessary to accomplish emergency plan functions. Exelon stated that these positions, as currently defined in its emergency plans, would not be considered as part of the ERO minimum staff needed to implement the emergency plans.

Based on the information above, the NRC staff has determined that the corporate spokesperson, JIC director, and public information director are sufficient to manage and coordinate media information related to the event. The NRC staff finds that the 90-minute response time for the corporate spokesperson, JIC director, and public information director positions acceptable because the Exelon communications department has personnel that can respond to media inquiries at any time. The NRC staff also finds it acceptable to perform the public information director position remotely, because Exelon will have the capability to perform the function within 90 minutes of the declaration of an alert or higher ECL using modern communications technology. In addition, the staff finds the recategorization of media/rumor control coordinator, logistics manager, and technical advisor positions as a full-augmentation position acceptable.

The NRC staff reviewed Exelon's proposed changes to the media information function and found them acceptable based on the information discussed above. Based on this review, the NRC staff has determined that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the media information function.

3.2.13 Information Technology

The purpose of the information technology (IT) function is to provide support for computer-based equipment if relied upon to perform emergency plan functions. The revised

NUREG-0654 Table B-1 states that IT staff is only required to be described in the emergency plan if critical digital assets are identified per 10 CFR 73.54. For each site, Exelon provided its analysis of the IT function in Section 3.2.13 of LAR Enclosures 1–3.

The revised NUREG-0654 Table B-1 recommends an IT lead staff the TSC within 90 minutes of the declaration of an alert or higher ECL, and another IT lead staff the EOF/JIC within 60 minutes of the declaration of a site area emergency or general emergency. The purpose of the IT leads is to ensure IT equipment is operable.

Consistent with the revised NUREG-0654 Table B-1, Exelon stated that there are no on-shift staff assigned to the IT function and it is not proposing any changes to on-shift IT staffing. However, Exelon's IT department maintains a helpdesk available at all times to assist users with IT-related issues. Currently, Exelon maintains a computer specialist position at the EOF as a full-augmentation position. Exelon proposed to reassign the computer specialist as EOF/JIC minimum staff that will be available within 90 minutes from the declaration of an alert or higher ECL.

Unlike the revised NUREG-0654 Table B-1, Exelon proposed that an IT lead position is not needed as minimum staff for the TSC because of acceptable performance of digital equipment during drills and exercises and built-in redundancy of communication systems and digital emergency plan assets. Exelon stated that the EOF and TSC contain multiple computers and programs, which are used during training and periodically tested. If issues are identified during testing, they are promptly addressed. In addition, many computer issues can be addressed remotely by the IT helpdesk. If additional help is needed at the TSC, the EOF IT specialist will be available to support resolution of the issue because the EOF IT specialist is proposed to be staffed within 90 minutes from the declaration of an alert or higher ECL. The time for staffing the EOF IT specialist overlaps with the NUREG-0654 Table B-1 recommendation of staffing an IT lead at the TSC within 90 minutes of the declaration of an alert or higher ECL.

Although there is a difference between the proposed staffing of the IT function and the revised NUREG-0654 Table B-1, the NRC staff has determined that Exelon will provide for an effective IT system through multiple IT resources. Therefore, the NRC staff concludes that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, with respect to the IT function.

3.2.14 First Aid and Rescue Operations

First aid and rescue operations are no longer identified as an emergency plan function under the revised NUREG-0654 Table B-1. Currently, each site has two on-shift staff assigned for first aid and rescue operations as collateral duties. Exelon proposed (Section 3.2.15 of LAR Enclosures 1–3) to maintain qualified first aid and rescue operations personnel on shift, but to remove these positions from the emergency plans. The NRC staff has determined that the proposed change is acceptable because it is consistent with the revised NUREG-0654 Table B-1.

3.2.15 Fire Brigade

Note viii to the revised NUREG-0654 Table B-1 states: "The number of operations staff, security force staff, or fire brigade staff on shift is controlled by the site-specific Technical Specifications or other licensing documents."

Exelon proposed (Section 2.1.2 of LAR Enclosures 1–3) to remove the designated on-shift fire brigade personnel from the site emergency plans, and to control the firefighting function per the site fire protection plan. The NRC staff has determined that the proposed change is acceptable because the firefighting function will continue to be controlled under the NRC-approved fire protection programs and because the proposed change is consistent with the revised NUREG-0654 Table B-1.

3.3 Full-Augmentation Staffing

Full-augmentation positions are not described in either Table B-1 of NUREG-0654, Revision 1, or the revised NUREG-0654 Table B-1. The revised NUREG-0654 Table B-1 addresses the required minimum staffing to perform major functional areas, as compared to other staff not critical to the effective implementation of the emergency plan. Note iii of the revised NUREG-0654 Table B-1 describes the distinction between ERO minimum staffing and ERO members who serve in a supporting capacity:

The minimum ERO staffing plan is that which is required to effectively implement the site-specific emergency plan (i.e., the emergency plan cannot be effectively implemented without this staff). The emergency plan should describe the minimum ERO staffing plan, while supporting implementing procedures can describe any other staff response desired by the licensee as long as this staff is not critical to effective emergency plan implementation[.] The augmentation times listed are intended to provide a model for applicants and licensees to consider in the development of their site-specific emergency plan.

The emergency plans for Calvert Cliffs and NMP currently list full-augmentation positions for the ERO which support the minimum staff in response to an emergency. Exelon proposed to either relocate the full-augmentation positions to EIPs or reclassify these position as minimum staff positions. A summary of the proposed changes to the Calvert Cliffs and NMP full-augmentation positions is described in Section 3.3 of LAR Enclosures 1 and 2, respectively. The FitzPatrick emergency plan does not currently list full-augmentation positions (they are included in EIPs), so Exelon did not propose any changes to the FitzPatrick emergency plan regarding full-augmentation positions. Full-augmentation positions which are reclassified as minimum staff are described in SE Section 3.2. The NRC staff finds it acceptable to relocate the proposed full-augmentation positions for Calvert Cliffs and NMP from the emergency plans to EIPs because, consistent with the revised NUREG-0654 Table B-1, these positions are not needed to implement the emergency plans.

For Calvert Cliffs and NMP, Exelon stated (Section 3.3 of LAR Enclosures 1 and 2) that it will use additional full-augmentation ERO staff that are trained and qualified. Most full-augmentation staff will still be assigned to ERO teams, be expected to maintain fitness-for-duty during duty weeks, and be notified to respond to their emergency response facility. The full-augmentation staff performs support functions such as intra-facility communications, organization liaisons, and expert advisors. For Calvert Cliffs, NMP, and FitzPatrick, full-augmentation staff will not be required to activate a respective emergency response facility and are not directly needed to implement the functions and tasks identified in the revised emergency plans.

The LAR states (Section 2.6 of LAR Enclosures 1–3), in part:

... Exelon will institute a “Minimum Staff” drill to be conducted once per drill cycle. The drill will include participation from the Minimum Staff of the Emergency Operations Facility (EOF), the Joint Information Center (JIC), the Technical Support Center (TSC), and the Operations Support Center (OSC) from one of the affected Exelon stations which have implemented the approved ERO staffing change license amendment. This will allow Exelon to periodically demonstrate that the Standardized Emergency Plan continues to effectively implement the required Emergency Preparedness functions utilizing only the Minimum Staff defined in the Emergency Plan. Since the ERO Minimum Staff is the same for each station under the Exelon Standardized Emergency Plan, it is not necessary to perform the drill for each station in a drill cycle. The stations would select one station to demonstrate the effectiveness of the minimum staff ERO. Credit for the “Minimum Staff” drill will be given to all of the affected stations.

Exelon’s February 22, 2019, letter describes how the minimum staff drill will be evaluated and clarifies that:

Exelon will perform a minimum staff drill for each Emergency Operations Facility once per 8-year drill cycle. Specifically, one site which utilizes the EOF will perform the drill and the other sites which share the EOF will take credit for the performance for that drill cycle.

The NRC staff determined that this minimum staff drill provides additional assurance that the staff identified in the emergency plan can perform their designated functions without reliance on the full-augmentation staff.

As discussed above, the NRC staff determined that it is acceptable to relocate the full-augmentation staff positions from Exelon’s emergency plans to EPIPs because it is consistent with the revised NUREG-0654 Table B-1. The revised site emergency plans will continue to include those positions necessary for effective implementation of the emergency plans, and this will be demonstrated by periodic drills. Therefore, the NRC staff concludes that the site emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50.

3.5 Personnel Accountability and Assembly

In Section 3.4.2 of LAR Enclosure 1 and Section 3.4.3 of LAR Enclosure 2, Exelon proposed changes to the assembly and accountability requirements in the Calvert Cliffs and NMP emergency plan annexes, respectively. Section 4.6.1, “Accountability,” of the Calvert Cliffs emergency plan annex states:

Emergency Plan Implementation Procedures provide the capability to account for all individuals in the Protected Area during a Site Area Emergency or General Emergency, to ascertain the names of missing individuals within 30 minutes of and [sic] Alert (for Security Event) [sic] Site Area Emergency or General Emergency declaration, and to account for all Protected Area individuals continuously thereafter. To accomplish accountability, site assembly is executed at Alert level emergency in anticipation of emergency escalation. The accountability process begins when assembly is complete.

Section 4.3.2, "Alert," of the NMP emergency plan annex states, in part:

Non-essential personnel will normally be evacuated from the protected area (provided it is safe) to designated locations outside of the protected area at [the Alert] level. All ERO personnel will assemble at their designated emergency facilities, and accountability may also be initiated. This ensures that:

- Appropriate staff is available to mitigate the event,
- The potential to over-expose non-essential personnel is minimized,
- Non-essential personnel are prepared for possible exclusion area evacuation by pre-staging these personnel outside of the protected area.

Exelon proposed to revise the Calvert Cliffs and NMP emergency plan annexes to only require personnel assembly and accountability to occur at the declaration of a site area emergency or higher ECL. These sites would continue to perform evacuation and accountability for certain security-related events at the alert classification level. Exelon stated that Calvert Cliffs and NMP will maintain the capability to perform personnel accountability of all individuals on site at all times. Exelon also stated that, given the experience in the industry, alerts typically do not escalate to a site area emergency or general emergency, and evacuating or assembling the site personnel to support accountability, when it is not necessary, is distracting and disruptive to the operations crew responding to the event.

Evaluation Criterion II.J.4 of NUREG-0654 states, in part, that the licensee shall provide for the evacuation of onsite non-essential personnel in the event of a site area emergency or general emergency. Evaluation Criterion II.J.5 of NUREG-0654 states that the "licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter."

The NRC staff reviewed the proposed changes to the accountability and assembly requirements for Calvert Cliffs and NMP and determined that these changes are acceptable because they are consistent with the guidance in NUREG-0654. Specifically, Exelon will continue to provide for the evacuation of onsite non-essential personnel in the event of a site area emergency or general emergency and maintain the capability to perform personnel accountability of all individuals on site in the event of an emergency. Therefore, the staff concludes that Exelon will continue to meet the requirements of 10 CFR 50.47(b)(10) at Calvert Cliffs and NMP with the proposed changes to the assembly and accountability requirements.

3.6 Sharing of ERO Staff at NMP and FitzPatrick

Exelon currently maintains separate EROs for FitzPatrick and NMP. NMP and FitzPatrick are located adjacent to each other, and the two EROs share the same EOF and JIC. In Section 3.4.2 of LAR Enclosures 2 and 3, Exelon proposed to have a common offsite ERO to respond to the EOF and JIC for an event that affects NMP, FitzPatrick, or both stations. The ERO staff for the onsite emergency response facilities (i.e., the TSC, OSC, and MCR) would remain separate and are not affected by this proposed change. In addition, Exelon stated that no physical changes to the facilities are required to support this change. The EOF is currently designed and built to display key plant data and radiological information for NMP Units 1 and 2 and FitzPatrick.

Exelon stated that the NMP and FitzPatrick ERO personnel will be trained and qualified to perform their emergency plan functions and tasks with respect to both stations. In addition, the ERO positions at both stations will have common procedures, training, and response times. Therefore, the NRC staff determined that having a common ERO staff for the EOF and JIC at these sites would not impact the current capabilities of the EOF and JIC, the response times for ERO personnel, or the effectiveness of the ERO to implement the emergency plans. As such, the NRC staff concludes that the NMP and FitzPatrick emergency plans will continue to meet the requirements 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50 with the proposed common ERO personnel for the shared EOF and JIC.

3.6 Summary

The NRC staff reviewed the proposed changes to the Calvert Cliffs, NMP, and FitzPatrick emergency plans as described in Exelon's LAR, as supplemented by letter dated February 22, 2019. The NRC staff finds that, with the proposed changes, the emergency plans will continue to meet the requirements of 10 CFR 50.47(b) and Section IV.A of Appendix E to 10 CFR Part 50, and that adequate protective measures can and will be taken in the event of a radiological emergency. Therefore, the NRC staff concludes that the proposed changes to the site emergency plans are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland and New York State officials were notified of the proposed issuance of the amendment on July 11, 2019. The State officials had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact was published in the *Federal Register* on November 28, 2018 (83 FR 61172). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of these amendments will not have a significant effect on the quality of the human environment.

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.

Principal Contributor: E. Robinson, NSIR

Date of Issuance: September 13, 2019

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2; CALVERT CLIFFS INDEPENDENT SPENT FUEL STORAGE INSTALLATION; JAMES A. FITZPATRICK NUCLEAR POWER PLANT; AND NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 — ISSUANCE OF AMENDMENTS TO REVISE THE EMERGENCY RESPONSE ORGANIZATION STAFFING REQUIREMENTS (EPID L-2018-LLA-0240) DATED SEPTEMBER 13, 2019

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