Exelon Generation®

10 CFR 50.90
10 CFR 50, Appendix E
10 CFR 50.54(q)(4)

August 30, 2018

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
NRC Docket Nos. 50-317 and 50-318

Calvert Cliffs Independent Spent Fuel Storage Installation
Materials License No. SNM-2505
NRC Docket No. 72-8

Subject: License Amendment Request Regarding Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

In accordance with 10 CFR 50.90 and 10 CFR 50, Appendix E, Section IV.E.8.b, Exelon Generation Company, LLC (Exelon) is submitting a License Amendment Request (LAR) to relocate and consolidate the Emergency Operations Facility (EOF) and Joint Information Center (JIC) for Calvert Cliffs Nuclear Power Plant (CCNPP) with the existing Exelon joint EOF and JIC (hereafter referred to as the Coatesville EOF/JIC) located in Coatesville, Pennsylvania. The Coatesville EOF/JIC is currently used as an EOF/JIC facility for Limerick Generating Station (LGS), Units 1 and 2, Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, and Three Mile Island Nuclear Station (TMI).

Exelon proposes to relocate the CCNPP EOF and JIC to the Coatesville EOF/JIC located at 175 North Caln Road in Coatesville, PA. The existing Coatesville EOF/JIC facility is approximately 115 air miles from CCNPP. Because the location of the Coatesville EOF/JIC is greater than 25 miles from the affected reactor site, Exelon is seeking NRC approval prior to implementation as required by 10 CFR 50, Appendix E, Section IV.E.8.b, which stipulates that: *"A licensee desiring to locate an emergency operations facility more than 25 miles from a nuclear power reactor site shall request prior Commission approval by submitting an application for an amendment to its license.*

This LAR requests relocating the CCNPP EOF/JIC to the existing joint Coatesville EOF facility which is currently shared by LGS, PBAPS, and TMI. This would increase the number of sites supported by the Coatesville EOF/JIC facility from three (3) to four (4).

On March 12, 2018, a pre-submittal teleconference was held between Exelon and NRC representatives to discuss the proposed plans to relocate the CCNPP EOF/JIC to the existing EOF/JIC facility in Coatesville, PA currently shared by LGS, PBAPS, and TMI. The discussions included evaluating industry precedent, consideration of simultaneous events at multiple stations, training of corporate personnel on the CCNPP plant technology and communications, as well as interactions with State and Local agencies in the State of Maryland.

Enclosure 1 includes the supporting technical and regulatory evaluation of the proposed changes. Enclosure 2 includes diagrams and pictures of the existing Coatesville EOF/JIC facility and the CCNPP near-site facility. The proposed Emergency Plan mark-up and clean pages for CCNPP are provided in Enclosure 3. Exelon has also conducted public outreach efforts with the State and Local emergency response officials and agencies. Enclosure 4 includes documentation supporting the affected agencies' concurrences indicating that they are not opposed to the relocation and consolidation of the CCNPP EOF/JIC with the Coatesville facility.

This amendment request includes regulatory commitments as described in Enclosure 5 of this submittal. Exelon plans to conduct a drill in support of the amendment request prior to implementation to demonstrate that no loss of emergency preparedness function or capability will result due to the proposed CCNPP EOF/JIC relocation and consolidation. Exelon will also complete installation of the Emergency Management Network (EMNet) system for CCNPP prior to implementation of the proposed EOF relocation and consolidation.

Exelon is requesting approval of the proposed license amendments for CCNPP, Units 1 and 2, by October 31, 2019. Once approved, Exelon is requesting that the amendments be implemented no later than April 30, 2020.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), Exelon is notifying the State of Maryland of this application for these license amendments by transmitting a copy of this letter and the supporting enclosures to the designated State Official. The Commonwealth of Pennsylvania has also been notified of the proposed changes since the existing Coatesville EOF/JIC facility is located in Pennsylvania. Enclosure 4 also includes documentation related to notifying the Commonwealth of Pennsylvania.

If you have any questions regarding this submittal, please contact Richard Gropp at (610) 765-5557.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 30th day of August 2018.

Respectively,

D. P. Helker

David P. Helker
Manager, Licensing and Regulatory Affairs
Exelon Generation Company, LLC

Enclosures:

1) Evaluation of Proposed Changes
2) Facility Photographs and Diagrams
3) Calvert Cliffs Nuclear Power Plant Emergency Plan Mark-up and Clean Pages
4) Offsite Response Agency Letters of Concurrence
5) Summary of Commitments

cc: w/ Enclosures
Regional Administrator - NRC Region I
Director, NRC Division of Spent Fuel Storage and Transportation, ONMSS
NRC Senior Resident Inspector - Calvert Cliffs Nuclear Power Station
NRC Project Manager, NRR - Calvert Cliffs Nuclear Power Station
D. A. Tancabel, State of Maryland
R. R. Janati, Commonwealth of Pennsylvania

Enclosure 1

License Amendment Request

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. NPF-53 and NPF-69
NRC Docket Nos. 50-317, 50-318, and 72-8

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request Regarding Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

License Amendment Request Regarding Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

1.0 SUMMARY DESCRIPTION

In accordance with 10 CFR 50.90 and 10 CFR 50, Appendix E, Section IV.E.8.b, Exelon Generation Company, LLC (Exelon) is submitting a license amendment request to support the relocation and consolidation of the Emergency Operations Facility (EOF) and Joint Information Center for Calvert Cliffs Nuclear Power Plant (CCNPP), Units 1 and 2, with the existing Exelon Generation Company, LLC (Exelon) EOF and JIC (hereafter referred to as the Coatesville EOF/JIC) located in Coatesville, Pennsylvania. This effort involves relocating the CCNPP station's EOF/JIC greater than 25 miles from the reactor site and combining it with the existing Coatesville EOF/JIC facility, which is currently used jointly by Limerick Generating Station (LGS), Units 1 and 2, Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, and Three Mile Island Nuclear Station (TMI). In a letter dated June 20, 2017, which was submitted pursuant to 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8), Exelon informed the U.S. Nuclear Regulatory Commission (NRC) of plans to permanently cease power operations at TMI, Unit 1 on or about September 30, 2019.

The proposed CCNPP EOF/JIC relocation and consolidation efforts are expected to have the following positive effects on the station's emergency response capability:

- Increased efficiency using common practices and procedures in a single facility.
- Enhanced reliability of emergency response by relocating the EOF away from a reactor site that could be affected by a large scale external event, security event, or site radioactivity release.
- Increased site Emergency Response Organization (ERO) position depth through the redeployment of personnel now holding EOF positions to other positions in the Technical Support Center (TSC) and the Operational Support Center (OSC).
- Utilizing Exelon corporate personnel from groups such as Emergency Preparedness, Radiological Engineering, Safety Analysis, Engineering, and Probabilistic Risk Assessment, as well as other personnel who have a wide range of expertise.

2.0 DETAILED DESCRIPTION

Exelon is submitting this license amendment request to facilitate the relocation and consolidation of the existing CCNPP EOF/JIC with the existing Coatesville EOF/JIC facility. The existing CCNPP EOF is co-located with the JIC approximately 12 miles from the CCNPP site, in the Calvert Industrial Park, located at Skipjack Road and Hallowing Point Road in Prince Frederick, Maryland. The proposed change would allow the CCNPP EOF/JIC functions to be relocated to the existing Coatesville EOF/JIC facility, which is approximately 115 air miles* away from the CCNPP site. (*Distances

provided throughout the document were determined via Google maps). This license amendment request is being submitted pursuant to the requirements of 10 CFR 50, Appendix E, IV.E.8.b, which stipulates that: *"A licensee desiring to locate an emergency operations facility more than 25 miles from a nuclear power reactor site shall request prior Commission approval by submitting an application for an amendment to its license."*

The proposed changes will revise the CCNPP Emergency Plan Annex EP-AA-1011, "Exelon Nuclear Radiological Emergency Plan Annex for Calvert Cliffs Station," and EP-AA-1000, "Exelon Nuclear Standardized Radiological Emergency Plan". The affected proposed mark-up and clean Emergency Plan pages for CCNPP are included in Enclosure 3.

LGS and PBAPS have used the consolidated Coatesville EOF/JIC facility since 1992 (Reference 1). This consolidated facility in Coatesville, Pennsylvania has proven to be effective for implementation of the LGS and PBAPS Emergency Plans. In 2003, the EOF for TMI was relocated and consolidated with the Coatesville EOF/JIC facility (Reference 2). The TMI JIC was subsequently relocated and consolidated with the Coatesville facility in 2008. Over the years, numerous drills and exercises have been conducted at the facility, including multi-site scenarios conducted in 2010 and 2011, which have demonstrated that the Coatesville EOF/JIC facility can be staffed to effectively manage required emergency response functions for these three (3) stations located in Pennsylvania. The addition of the CCNPP EOF/JIC to the Coatesville EOF/JIC does not alter: 1) the existing facility structure; and 2) the existing ERO practices in support of LGS, PBAPS, and TMI or require prior NRC approval of Emergency Plan changes for the stations, since the Coatesville EOF/JIC facility has already been approved for use by these three (3) sites.

As specified in Enclosure 5 of this submittal for the CCNPP, Exelon has committed to conduct a confirmation Emergency Preparedness (EP) two-site simultaneous drill involving CCNPP and one of Exelon's stations located in Pennsylvania (either LGS or PBAPS) to demonstrate that there is no loss in EP functions or capabilities resulting from the proposed changes. The drill will include participation from each affected site's Emergency Response Facilities (ERFs), i.e., Technical Support Center (TSC), Operations Support Center (OSC), or control cell, described in the Emergency Plans. The NRC and affected offsite emergency response organizations (e.g., Federal, State, and Local agencies) will be invited to observe and/or participate in this drill. Exelon will conduct additional training drills to support the transition, training, and implementation of the changes.

Exelon has established frequencies for conducting emergency preparedness drills and exercises based on the guidance in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (Reference 3), including Supplements 1 and 3, as well as the guidance established in NRC Regulatory Guide 1.101, "Emergency Response Planning and Preparedness for Nuclear Power Reactors"

(Reference 4) and NRC Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Interim Staff Guidance - Emergency Planning for Nuclear Power Plants" (Reference 6). Exelon Procedure EP-AA-122-100, "Drill and Exercise Planning and Scheduling," specifies that multi-site event scenarios are tested at the Coatesville EOF/JIC facility as described below.

Required Drills and Exercises	Station	Corporate	Offsite	Minimum Objectives
Multi-Site Drill[5]	8Y	8Y	Optional	N/A

[5] Only applicable for sites with a common EOF.

To further substantiate the capability to adequately respond to a multi-site event in support of relocating and consolidating the CCNPP EOC/JIC with the Coatesville EOF/JIC, an historical search of Exelon emergency event classifications/declarations was performed over a 16-year period (i.e., June 2, 2002, through June 1, 2018). This period was selected since: 1) it represents the time period when the Coatesville EOF/JIC facility has functioned in support of LGS, PBAPS, and TMI; 2) it provides a sufficient number of data points; and 3) it is representative of current performance. The search consisted of identifying any emergency classifications/declarations requiring activation of the facility (typically an Alert Emergency Classification Level (ECL) or higher) for the Exelon sites that will be combined into the consolidated EOF. The search results are described in the table below. The search identified a total of four (4) Alert ECLs involving the Exelon plants located in Pennsylvania. There were no Alert or higher ECL events reported for CCNPP during the period. There were no instances during this period involving simultaneous events at multi sites. The four (4) events over 16 years are shown in the table below.

Table 1 – Alert Classifications Declared Since 2002

Station	Date	Initiating Event for the Alert
LGS	April 5, 2015	Fire in Motor Control Center
PBAPS	August 8, 2007	Potential Hazardous Atmosphere in EDG Room
PBAPS	June 6, 2002	Carbon Dioxide Injection into E3 EDG Room
TMI	October 15, 2015	Fire in Auxiliary Building
CCNPP	N/A	None

3.0 TECHNICAL EVALUATION

NUREG-0696, "Functional Criteria for Emergency Response Facilities" (Reference 5) describes the facilities and systems that nuclear power plant licensees can use to improve emergency response to accidents, such as the EOF, TSC, and OSC. NRC Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Interim Staff Guidance - Emergency Planning for Nuclear Power Plants" (Reference 6), also provides guidance on the functional criteria for ERFs and on the integrated support these facilities provide to the Main Control Room (MCR). These documents describe an acceptable method of

complying with the requirements of 10 CFR 50, Appendix E, Section IV.E.8. Sections 3.1 through 3.9 below utilize the guidance in NUREG-0696 to demonstrate the acceptability of the Coatesville EOF/JIC for use as the CCNPP EOF/JIC. Enclosure 3 contains the affected CCNPP Emergency Plan mark-up and clean pages associated with the proposed changes to relocate and consolidate the CCNPP EOF/JIC.

3.1 Functions

The Coatesville EOF/JIC contains both the EOF and the JIC. As specified in NUREG-0696, the EOF is the location where the Corporate Emergency Director will direct a staff in evaluating and coordinating the overall company activities involved with an emergency. Activation of the EOF is mandatory upon declaration of an Alert or higher ECL. The EOF provides for:

- Management of overall emergency response.
- Coordination of radiological and environmental assessments.
- Determination of recommended public protective actions.
- Management of recovery operations.
- Coordination of emergency response activities with Federal, State, and Local agencies.

Once activated, the JIC is the facility in which media personnel gather to receive information related to the emergency event. The JIC is the location where approved news releases will be provided to the media for dissemination to the public. News releases are coordinated between the EOF and JIC personnel and State and/or Federal representatives in the JIC.

Upon relocation and consolidation of the CCNPP EOF/JIC at the Coatesville facility, the Coatesville EOF/JIC will continue to serve as Exelon's offsite emergency response facility capable of providing the following:

1. Management of overall licensee emergency response.

   The Coatesville EOF/JIC has functioned as a consolidated EOF for LGS, PBAPS, and TMI since 2003. In that time, the EOF staff has successfully demonstrated the ability to manage emergency response in several evaluated exercises and numerous drills and exercises in which offsite emergency response organizations have observed and/or participated in these drills and exercises. This included representatives from the State of Maryland in support of PBAPS emergency response. Exelon has well-established procedures and practices in place for emergency management that will continue to be used after the proposed relocation and consolidation of the CCNPP EOF and JIC with the Coatesville EOF/JIC. While revisions to some EOF-related procedures are anticipated, the consolidation will not alter or adversely affect the overall approach to emergency response.

2. Coordination of radiological and environmental assessment.

   Once approved, and upon implementation of the proposed changes to relocate and consolidate the CCNPP EOF/JIC, the Coatesville EOF staff will coordinate offsite field monitoring team (field team) activities and perform dose assessment functions. Communication and dose assessment capabilities are discussed in Sections 3.6 and 3.8 below. The Coatesville facility has demonstrated successful coordination of field team activities through evaluated drills and exercises at LGS, PBAPS, and TMI.

3. Determination of recommended public protective actions.

   Once approved, and upon implementation of the proposed changes to relocate and consolidate the CCNPP EOF/JIC, the Coatesville EOF staff will continue to make Protective Action Recommendations (PARs) to offsite agencies based upon plant conditions or dose projections. Procedures with plant-specific guidance will continue to be used in making PARs. To address differences in the development of PARs associated with LGS, PBAPS, and TMI from CCNPP, the appropriate EOF personnel will receive additional training on CCNPP-specific PAR determination prior to implementing the changes in support of EOF/JIC relocation and consolidation efforts.

4. Notification of offsite agencies.

   The Coatesville EOF staff currently makes notifications to State and Local agencies during emergencies, drills, and exercises for LGS, PBAPS, and TMI. These messages include initial notifications, changes in emergency classification or PARs, and periodic updates. Upon implementation of the proposed EOF relocation and consolidation for CCNPP, these notifications for CCNPP will be made from the Coatesville EOF. Note that, because the PBAPS 10-mile and 50-mile Emergency Planning Zones (EPZs) extend into the State of Maryland, these notifications are currently made to the State of Maryland for events involving PBAPS. The primary notification system used at the Coatesville EOF is the Emergency Management Network (EMNet). This system will be installed for CCNPP prior to implementation of the proposed EOF relocation and consolidation. EMNet and other communication capabilities and methods are further described in Section 3.6 below. The Coatesville EOF has enough workstations and personnel designated to communicate with affected offsite agencies to support communications for more than one site simultaneously.

5. Coordination of event, plant, and response information provided to public information staff for dissemination to the media and public.

   Once approved, and upon implementation of the proposed changes to relocate and consolidate the CCNPP EOF/JIC, the Coatesville EOF/JIC staff will continue to provide event, plant, and response information to public information staff for dissemination to the media and public through the appropriate JIC. The Coatesville JIC, which serves as the JIC for LGS, PBAPS, and TMI is located in the same

building as the Coatesville EOF. CCNPP currently has a near-site JIC that is located with its EOF. Exelon plans to align JIC operations such that, in an exercise or emergency, the Coatesville JIC will serve as the JIC for CCNPP.

The JIC is under the direction of the Corporate Spokesperson and functions as the single-point contact to interface with Federal, State, and Local authorities who are responsible for disseminating information to the public. The JIC is equipped with appropriate seating, lighting, and visual aids to allow for public announcements and briefings to be given to the news media. Additionally, the JIC is equipped with commercial telephone lines for making outgoing calls. The ERO personnel from the JIC and EOF work together in preparing and releasing utility information about the emergency event. The functions of the JIC include:

- Serving as the primary location for accumulating accurate and current information regarding the emergency conditions and writing news releases.
- Providing work space and phones for public information personnel from the state, counties, NRC, Federal Emergency Management Agency (FEMA), and industry-related organizations.
- Providing telephones for use by the news media personnel.
- Providing responses to media inquiries about an emergency.

6. Staffing and activation of the facility within time frames and at emergency classification levels defined in the licensee emergency plan.

   The Coatesville EOF/JIC staff augments at the EOF for an Alert ECL (or higher), within the times defined by the emergency plan, and will continue to do so upon implementation of the proposed changes for CCNPP. This is consistent with the existing CCNPP Emergency Plan requirements.

7. Coordination of emergency response activities with Federal, State, tribal, and local agencies.

   The Exelon sites currently using the Coatesville EOF (i.e., LGS, PBAPS, and TMI) notify State and Local agencies using EMNet. When the proposed changes to relocate and consolidate the CCNPP EOF/JIC are implemented and integrated with the Coatesville EOF/JIC, all four affected sites (i.e., LGS, PBAPS, TMI, and CCNPP) will use EMNet to notify State and Local agencies.

   At CCNPP, the FTS 2001 Telephone System provides CCNPP and onsite NRC personnel direct communications with NRC Operations Center using dedicated telephone systems. NRC FTS-2001 system telephones are also provided in the Coatesville EOF/JIC. The FTS-2001 system, EMNet, and other communication methods are further described in Section 3.6 below.

   In accordance with 10 CFR 50.47(b)(3), space is available in the Coatesville EOF/JIC facility to accommodate State and Federal responders. Representatives

from State and Federal agencies currently respond to the Coatesville EOF/JIC for LGS, PBAPS, and TMI, which includes representatives from the State of Maryland. There is a dedicated conference room for the NRC, a dedicated room for local agencies (Calvert County), and dedicated space for Maryland representatives in the main EOF area, the Radiological Assessment area, and the Offsite Monitoring area.

Field team communications for the Exelon sites currently using the Coatesville EOF (i.e., LGS, PBAPS, and TMI) employ radios and satellite phones. Because radio is not effective over the range from CCNPP to the Coatesville facility, communications between the Coatesville EOF and the CCNPP field teams will employ satellite phone with cell phone backup. In July 2018, Exelon successfully tested the satellite phone communications between the Coatesville EOF and the CCNPP field teams.

Exelon provides each Field Monitoring Team (FMT) with a commercial cell phone which uses Verizon as the carrier. Exelon also provides each FMT with Wireless Priority Service (WPS) cards to enable FMT personnel priority access and prioritized processing in all nationwide and several regional cellular networks, greatly increasing the probability of call completion.

Exelon is confident of the cell phone coverage throughout the CCNPP EPZ. There is no mountainous terrain in the area surrounding CCNPP. Documented performance in the quarterly ERO call-in drills which rely on cell phone notification and response has been successful with no coverage issues identified. Exelon Emergency Preparedness personnel reviewed cell phone coverage maps for the EPZ and surrounding areas (up to a 15-mile radius from CCNPP) for the four major cell phone carriers in the United States: Verizon, AT&T, T-Mobile, and Sprint and verified all carriers provide coverage in the area. In addition, at the Coatesville EOF/JIC, there have been no historical problems with cell coverage at Limerick, Peach Bottom, or TMI.

8. Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site.

   10 CFR 50, Appendix E, Section IV.b, stipulates the following:

   "…For an emergency operations facility located more than 25 miles from a nuclear power reactor site, provisions must be made for locating NRC and offsite responders closer to the nuclear power reactor site so that NRC and offsite responders can interact face-to-face with emergency response personnel entering and leaving the nuclear power reactor site. Provisions for locating NRC and offsite responders closer to a nuclear power reactor site that is more than 25 miles from the emergency operations facility must include the following:

   (1) Space for members of an NRC site team and Federal, State, and local responders;

(2) Additional space for conducting briefings with emergency response personnel;

(3) Communication with other licensee and offsite emergency response facilities;

(4) Access to plant data and radiological information; and

(5) Access to copying equipment and office supplies..."

NSIR/DPR-ISG-01, also includes a description of the facilities and capabilities that the EOF shall have, which includes provisions for a near-site facility as follows:

"Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site. Minimum provisions at this location should include the following items: conference area with whiteboards, separate areas suitable for briefing and debriefing response personnel, telephones, site ERO telephone contact lists, computers with internet access, access to a copier and office supplies, and radiation monitoring capability…"

"The habitability criteria in Table 2 were retained since the criteria apply only to a primary EOF located within 10 miles of the TSC."

Exelon has arranged for and established a near-site response facility/location for CCNPP at College of Southern Maryland, Prince Frederick Campus which is located approximately 11 air miles from CCNPP; therefore, the ISG habitability criteria do not apply. A letter of agreement with the College of Southern Maryland is included in Enclosure 4. The facility includes a multi-purpose room for establishing an Alternative Facility, a staging area for personnel, a room for the NRC, a helicopter landing area, parking lots for CCNPP personnel parking, storage closet space for equipment and materials, phones, phone lines, internet access, bathroom facilities, and a room for Offsite Agencies. The station has full access to designated areas in Building B, providing over 7,000 square feet of useable space. The facility location and characteristics are listed in the table below. Procedural guidance will ensure the near-site facilities are made operational and available in a timely manner for the NRC and offsite agencies. An Exelon liaison will be available at the facility to orient arriving NRC and offsite agency officials.

Table 2 - Near-Site Response Facility

Facility Characteristics	
Location	College of Southern Maryland, Prince Frederick Campus
Distance from reactor site (approximate air miles)	11
Distance from Coatesville EOF (approximate air miles)	115
Conference area with whiteboards	Yes
Separate briefing/debriefing area	Yes
Telephones available	Yes
ERO telephone contact lists	Yes
Computers with internet access	Yes
Access to photocopier	Yes
Office supplies available	Yes
Access to plant data and radiological information	Yes
Radiation monitoring capability	Not required. Radiological Monitoring is not required for facilities more than 10 miles from the station per NUREG-0656 and NSIR/DPR-ISG-01.

9. Obtaining and displaying key plant data and radiological information for each unit or plant the EOF serves.

   Data acquisition for CCNPP will be achieved through a proxy server connected to the protected plant communication voice and data networks. This information can be displayed on screens in the Coatesville EOF/JIC. Screens are available such that information from more than one site can be displayed. See Sections 3.7 and 3.8 for details.

10. Analyzing plant technical information and providing technical briefings on event conditions and prognosis to licensee staff and offsite agency responders for each type of unit or plant.

    The Coatesville EOF/JIC does have the capability to access key plant parameters from CCNPP as described in Sections 3.7 and 3.8. Knowledge of these parameters allows the EOF staff to assess the severity of an accident, project the accident's course, and provide utility management with information needed for mitigation, recovery, and PARs. The Coatesville EOF has enough workstations to monitor

conditions at more than one site simultaneously. The Coatesville EOF has been evaluated as being equipped with sufficient conference rooms for technical briefings for licensee staff and offsite agency responders. Telephone conferencing capability is available for briefing responders not located in the EOF.

11. Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a consolidated EOF.

    Exelon will maintain the current Coatesville EOF's ability to support simultaneous events for at least two (2) sites. The Exelon Emergency Preparedness Program includes a requirement to perform a two-site drill every eight (8) years. The Coatesville EOF is equipped with facilities to monitor and analyze events at more than one site simultaneously. Enough workstations are available for data retrieval and the facility has adequate display capability to simultaneously present this information to the EOF staff. In addition, the capability is provided to support communications to offsite agencies for more than one event. If Coatesville EOF/JIC must respond to an event at more than one site simultaneously, the normal EOF/JIC staff complement is augmented with additional personnel as needed.

    When the ERO call-out system is activated, all ERO members are notified to establish adequate coverage of ERO positions at their designated ERFs. With regard to staffing the Coatesville EOF/JIC, ERO personnel at the Exelon Nuclear Corporate Office located in Kennett Square, Pennsylvania, are required to act promptly in reporting to their assigned ERF upon activation, even when personnel are not on ERO response duty rotation. Excess personnel that respond may be assigned support responsibilities or be designated as a relief shift.

The Coatesville EOF/JIC currently assumes the 11 functions discussed above for LGS, PBAPS, and TMI during drills, exercises, and actual emergencies. Consequently, the ERO personnel assigned to the EOF/JIC are experienced in the management of emergency response. Furthermore, an advantage of being located near the Exelon Nuclear Corporate Offices in Kennett Square, Pennsylvania, is that the Coatesville EOF/JIC ERO staff includes the expertise of Exelon corporate personnel. This includes important groups such as Fleet Emergency Preparedness, Radiological Engineering, Safety Analysis, and Probabilistic Risk Assessment as well as individuals who have a wide range of expertise. Nevertheless, the EOF/JIC staff will receive training on the applicable characteristics of CCNPP prior to implementation of the proposed changes to relocate and consolidate the CCNPP EOF/JIC at the existing Coatesville EOF/JIC facility. This training will include instruction on the reactor technologies involved (i.e., pressurized water reactor) related to CCNPP, differences in the radiological and environmental characteristics of the newly added station, and the determination of PARs. In addition, as with the other stations currently using the Coatesville EOF/ JIC, periodic training will be provided in accordance with the Exelon Emergency Preparedness Emergency Response Organization (ERO) Training and Qualification Program requirements to maintain proficiency in release path determination, PAR determination, and dose assessment.

Because LGS, PBAPS, and TMI have utilized the consolidated EOF/JIC in Coatesville for many years, the EOF/JIC staff is experienced in the coordination of emergency response activities with offsite agencies, including agencies in the State of Maryland. Exelon does not anticipate any adverse impacts associated with coordinating emergency response functions and capabilities once CCNPP is included at the Coatesville EOF/JIC facility.

3.2 Location, Structure, and Habitability

The Coatesville EOF/JIC is farther than 10 miles from any of the Exelon nuclear stations that it currently supports. Therefore, EOF functions would not be interrupted during radiation releases for which it was necessary to recommend protective actions for the public to offsite officials. In addition, there are no specific NUREG-0696*, "Functional Criteria for Emergency Response Facilities,"* habitability criteria for the EOF, and a backup facility is not required. The Coatesville EOF/JIC is located at 175 North Caln Road, Coatesville, Pennsylvania. This is 14.7 driving miles from the Exelon Nuclear Corporate Offices in Kennett Square, Pennsylvania, which allows corporate support and management personnel to rapidly staff the Coatesville EOF/JIC facility.

Access to the Coatesville EOF/JIC is controlled by a monitored electronic card reader process that allows entry only to authorized personnel. The Coatesville EOF/JIC meets the provisions for normal industrial security to ensure activation readiness for an emergency by the exclusion of unauthorized persons. After the Coatesville EOF/JIC is activated, security protection is upgraded to restrict access to those personnel assigned to this facility or authorized for entry.

The Coatesville EOF/JIC was previously evaluated under the relocation of LGS and PBAPS EOFs in accordance with the criteria in NUREG-0696, Section 4, "*Emergency Operations Facility*," and was approved by the NRC (Reference 1). The location, size, and layout of the Coatesville EOF/JIC facility will continue to meet the Emergency Plan staffing and equipment requirements to carry out overall strategic direction for onsite and support operations, determination of public protective actions to be recommended to offsite officials, and coordination with Federal, State, and Local organizations. In accordance with Emergency Plan requirements, periodic ERO augmentation drills will be used to verify staff response capabilities. The Coatesville EOF/JIC is a larger facility and is able to support the EOF/JIC emergency response functions for CCNPP. It provides accommodations for offsite response agencies and continues to provide a communication system. The proposed relocation and consolidation of the CCNPP EOF/JIC with the Coatesville facility would be considered an enhancement to emergency preparedness capabilities.

Although the electrical power supplies to the Coatesville EOF/JIC do not need to meet safety grade or Class 1 E criteria, the facility is powered by commercial electrical power. The facility also has an Uninterruptable Power Supply (UPS) battery backup, and a backup diesel generator. The UPS is designed to eliminate the necessity to restart

computers in the EOF/JIC while loads are transferred from the commercial power supply to the backup diesel generator in the event of a loss of commercial power.

3.3 Staffing and Training

Incorporating the CCNPP EOF/JIC into the Coatesville EOF/JIC will not adversely affect the ability of the EOF/JIC to be staffed in a timely manner. The facility will be staffed with experienced EOF/JIC personnel from the Exelon Nuclear Corporate office in Kennett Square, Pennsylvania. The Coatesville EOF/JIC staff has demonstrated its ability to staff the EOF/JIC within 60 minutes of an event declaration requiring activation during augmentation drills. The Coatesville EOF/JIC staff currently includes personnel to manage overall licensee emergency response, coordinate radiological and environmental assessment, determine recommended public protective actions, and interface with offsite officials. These functions will continue to be performed after the implementation of the proposed relocation and consolidation efforts.

The Coatesville EOF/JIC staff is currently proficient in emergency response for LGS, PBAPS, and TMI. As discussed in Section 3.1 above, the Coatesville EOF/JIC staff will receive CCNPP-specific training on release in progress determination, release paths, dose assessment, and PAR determination prior to implementation of the changes supporting the relocation and consolidation of the EOF/JIC. The EOF staff for the common Exelon emergency plan will be trained in the emergency response for CCNPP. This training is similar to LGS, PBAPS, and TMI training. Key decision makers will attend CCNPP training as required based on their prior experience and training. Therefore, proper response to a CCNPP emergency will be within the capabilities of the EOF staff. Transferring EOF functions to the common EOF will allow CCNPP to better focus station resources on site accident management. There are no ERO staffing changes proposed by this license amendment request.

3.4 Size

The existing Coatesville EOF size has been evaluated against Exelon Standard Emergency Plan EOF staff positions. The designated work areas meet the guidance of NUREG-0696 for 75 square feet (ft2) per person, even when using the full-augmentation staff size for two (2) stations, for the planned CCNPP EOF/JIC staffing. The current Coatesville EOF size provides for the same or improved capability when compared to the existing CCNPP EOF configuration and meets the guidance of NUREG-0696. The combined Coatesville EOF/JIC measures approximately 182 feet x 122 feet providing a total of over 20,000 square feet of space, divided between the EOF and the JIC. The near-site facility provides over 6,000 square feet of space (see Enclosure 2).

The existing Coatesville JIC is equipped with seating, lighting, and visual aids to allow for public announcements and briefings to be given to the news media. The JIC is equipped with commercial telephone lines for making outgoing calls. The Emergency Public Information Organization functions from the JIC and EOF in preparing and releasing utility information about the emergency event. The JIC provides work space

and phones for public information personnel from the State, Local, NRC, FEMA, industry-related organizations, and news media personnel. The JIC also contains phones that the news media can call for information about an emergency.

Adequate space is allocated for accident assessment, radiation assessment, offsite monitoring, offsite communications, command and control, conferences, NRC response team, offsite response agencies (Federal, State, and Local (if needed)), and storage. Space is not required for EOF data system equipment to transmit data to other locations. Data transmittal comes from the sites. There is sufficient space for servicing of equipment, displays, and instrumentation performed onsite. Phones and special communications equipment are provided as needed throughout the facility at personnel work stations. Individuals needing access to plant data are provided access via Personal Computers (PCs). Space is provided for ready access to functional displays of EOF data through use of computer monitors, projection screens, and video display monitors.

3.5 Radiological Monitoring

The Coatesville EOF/JIC is further than 10 miles from every Exelon nuclear station that it currently supports. Consequently, the specific habitability criteria described in Section 4.2, Table 2, of NUREG-0696 are not applicable.

The near-site facility at the College of Southern Maryland is approximately 11 miles away from CCNPP; therefore, the specific habitability criteria described in NUREG-0696 are not applicable. In addition, the specific habitability criteria described in Table 2 of NSIR/DPR-ISG-01 criteria apply only to a primary EOF located within 10 miles of the TSC, which is still located onsite at CCNPP.

3.6 Communications

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

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

- Facsimile (fax) transmission capability
- Commercial cell phone backup

Field team communications for the Exelon sites currently using the Coatesville EOF (i.e., LGS, PBAPS, and TMI) employ radios and satellite phones. Because radio is not effective over the range from CCNPP to the Coatesville facility, communications between the Coatesville EOF and the CCNPP field teams will employ satellite phones with cell phone backup. In July 2018, Exelon successfully tested the satellite phone communications between the Coatesville EOF and the CCNPP field teams.

Exelon provides each FMT with a commercial cell phone which uses Verizon as the carrier. Exelon also provides each FMT with WPS cards which enable FMT personnel priority access and prioritized processing in all nationwide and several regional cellular networks, greatly increasing the probability of call completion.

Exelon is confident of the cell phone coverage throughout the CCNPP EPZ. There is no mountainous terrain in the area surrounding CCNPP. Documented performance in the quarterly ERO call-in drills which rely on cell phone notification and response has been successful with no coverage issues identified. Exelon Emergency Preparedness personnel reviewed cell phone coverage maps for the EPZ and surrounding areas (up to a 15-mile radius from CCNPP) for the four major cell phone carriers in the United States: Verizon, AT&T, T-Mobile, and Sprint and verified all carriers provide coverage in the area. In addition, at the Coatesville EOF/JIC, there have been no historical problems with cell coverage at Limerick, Peach Bottom, or TMI.

For all the ERFs, the emergency communications systems are designed to ensure the reliable and timely flow of information between all parties having an emergency response role. EMNet provides capabilities for State and Local notifications for station Control Rooms, TSCs, and EOF. EMNet will enable the four (4) Exelon nuclear plants that would use the combined Coatesville EOF/JIC facility to effectively notify the required offsite response organizations in both Maryland and Pennsylvania. EMNet will be the primary means of communicating changes in event classification and PARs to the States and Counties. EMNet is comprised of two paths of communication: a primary mode and an alternate mode. These paths of communication can be any type of internet connection (e.g., DSL, T-1 broadband, etc.) or satellite connectivity. The primary mode is usually a Local Area Network (LAN) connection on the Exelon Enterprise Network (EEN). The alternate mode is via satellite uplink, thus providing a dedicated system between facilities with both a primary and backup. Existing commercial telephone service and fax serve as the designated backup means of communications in the event of an EMNet failure.

At the Coatesville EOF, existing commercial telephone and telefax capabilities serve as the designated backup means of communications in the event of an EMNet failure for State and Local Notifications. Cell phones serve as an additional backup.

Regarding additional phone lines in the Coatesville EOF, such as phones that connect the EOF, TSC, and MCR, existing commercial telephone lines are used as the primary means of communication. Satellite phones would be used as an alternate means of communication between facilities if the commercial phone lines fail.

Long distance calls from the Coatesville EOF/JIC are routed across the EEN to one of the redundant Exelon Corporate Data Centers in Illinois or Maryland. Telephones are provided for the respective Federal and State representatives. Also, telephones for the NRC Emergency Telecommunications System (ETS), the Emergency Notification System (ENS), and Health Physics Network (HPN), are available in the NRC work area. Provisions for backup power are described in Sections 3.2 and 3.7.

With the consolidation of the CCNPP EOF into the Coatesville EOF, the microwave telephones ("Hot Lines") located at the following locations will no longer be used:

- From Emergency Operations Facility (Dose Assessment Room) to the Electric Operations Building
- From the Emergency Operations Facility (Dose Assessment Room/ State Room) to the Maryland Department of Environment – this was replaced by direct line in the EMNet modification.
- From the Emergency Operations Facility to the Information Technology, Operations and Technical Support Dept (Owings Mills Facility)
- From the Emergency Operations Facility (Security Room) to Corporate Security (Owings Mills Facility)

The elimination of the microwave phone system is based on having the above described communications systems and backups in place linking the required ERFs and offsite agencies. Following the Exelon/CENG merger Information Technology, Operations and Technical Support Department (Owings Mills Facility), and Corporate Security (Owings Mills Facility) were relocated and are no longer needed in emergency response. As a result, communications with these departments is no longer required.

3.7 Instrumentation, Data System Equipment, and Power Supplies

The plant communications network will be represented by the EEN connection which already exists between the CCNPP facility and the Coatesville EOF. This existing network will be utilized to transmit and receive plant data from the CCNPP site to Coatesville. To comply with the Cyber Security Rule (10 CFR 73.54), all plant data will be encrypted between the Coatesville EOF plant data workstation and the CCNPP server systems. This system will be tested and verified operable prior to the implementation of the approved LAR. The infrastructure will meet the functional intent of the criteria described in NUREG-0696, Sections 4.7 and 4.8.

The CCNPP plant data will be available to users within the Coatesville EOF facility by utilizing existing Exelon corporate workstations (equipped with RTime FleetView software) connected to the EEN. The data connection between these workstations and

the CCNPP plant data servers will be encrypted using industry standard IPSEC data encryption protocols. Once the workstations have established a secure connection to the CCNPP server, the workstations will allow the EOF facility to access displays that are representative of the displays in the CCNPP Control Room via the EEN. Exelon has established an availability goal for the EEN that exceeds the 0.01 unavailability goal identified in NUREG-0696. The Coatesville EOF/JIC will have access to the same data points that are available to the Operators in the Control Room and emergency responders in the TSC and OSC, including the Safety Parameter Display System (SPDS) data points. The Coatesville EOF/JIC video display system will display the graphics on screens in the main EOF area.

The workstations and related EEN LAN/WAN equipment require AC power to operate. The LAN equipment housed within the Coatesville EOF/JIC is on backup power. An emergency diesel generator feeds the Coatesville EOF/JIC. The facility also has a UPS designed to eliminate the necessity to restart computers in the EOF/JIC while loads are transferred from the commercial power supply to the backup diesel generator in the event of a loss of commercial power.

Since the Coatesville EOF/JIC is located offsite of CCNPP, its electrical equipment loads do not affect any safety-related power source. Loss of primary commercial power does not cause loss of any stored data vital to EOF functions. Plant records and historical data from the site is accessible through the Fleet Configuration Management System (FCMS) at the EOF. This information can be accessed by the Coatesville EOF/JIC staff, as needed.

Commercial broadband connections are provided in the Coatesville EOF/JIC facility to allow offsite response organization responders to have access to the Internet. All electrical outlets, lighting fixtures, and HVAC loads in the Coatesville EOF/JIC are on the generator back-up power supply.

3.8 Technical Data and Data System

The Coatesville EOF has the capability to receive, store, process, and display information needed to perform assessments of actual and potential offsite environmental consequences of an emergency at CCNPP. The EOF data set includes radiological, meteorological, and other environmental data as needed to:

- Assess environmental conditions,
- Coordinate radiological monitoring activities, and
- Recommend implementation of offsite emergency plans.

The communication data network (described above in Section 3.7 above) will allow the display of data points that cover Type A, B, C, D, and E variables discussed in NUREG-0696, Section 4.8. In addition, the meteorological variables required for dose assessment will be made available through this communications network. Up to four years of historical CCNPP meteorological data are available from the RTime FleetView

software on the EOF Coatesville Exelon corporate workstations. The Coatesville EOF communication data network will continue to meet the functional intent of the criteria described in NUREG-0696, Sections 4.7 and 4.8.

Offsite dose assessment is performed for all operating Exelon sites using the Unified RASCAL Interface (URI). URI is a computer-based software intended for use at nuclear generating stations and other emergency response facilities in the event of an actual or potential release of airborne radioactivity to the environment at levels warranting declaration of an emergency specified in the site's Emergency Plan. URI is a replacement for the user interface normally delivered with the computer software Radiological Assessment System for Consequence Analysis ("RASCAL") maintained and distributed by the NRC.

3.9 Records Availability and Management

The Coatesville EOF/JIC has the capability to maintain hard copies of key reference materials for CCNPP, if needed. In addition, station design documentation, plant drawings, procedures, etc. are available electronically via the LAN connection to the Fleet Configuration Management System (FCMS). Examples include:

- Plant Technical Specifications – accessed electronically
- Plant Operating Procedures – accessed electronically
- Emergency Operating Procedures – accessed electronically
- Updated Final Safety Analysis Reports – accessed electronically
- Emergency Plans – controlled hard copies of station Emergency Plans and State Emergency Plans (including site specific appendices)
- Offsite population distribution data – this is part of the station Emergency Plans
- Evacuation Plans – this is part of the station Emergency Plans
- Licensee employee radiation exposure history – accessed electronically
- Drawings – accessed electronically

Any hard copy records will be maintained by a controlled distribution process.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

4.1.1 Requirements and Guidance – EOF Relocation

10 CFR 50, Appendix E, Section IV.E.8.b requires a licensee desiring to locate an EOF more than 25 miles from a nuclear reactor site to request prior NRC approval by submitting an application for an amendment to its license. For the proposed changes related to relocation and consolidation of the CCNPP EOF/JIC, this requirement would apply since the existing Coatesville EOF/JIC located in Coatesville, Pennsylvania exceeds the 25-mile limit described in Section 2 above. In addition, a backup facility to

the Coatesville EOF/JIC is not required because this regulation only requires a backup for EOFs that are less than 10 miles from the site.

10 CFR 50, Appendix E, Section IV.E.8.b also requires that, for an EOF located more than 25 miles from a nuclear reactor site, provisions be made for locating NRC and offsite responders closer to the reactor site to facilitate face-to-face interaction with emergency personnel entering and leaving the site. This regulation also describes the requirements for space and equipment:

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

A near-site response location is being established to meet this requirement, as described in Section 3.1.8 above. This near-site response facility will be located at the College of Southern Maryland, Prince Frederick Campus.

10 CFR 50, Appendix E, Section IV.E.8.c establishes requirements for data acquisition and display, technical analysis of event conditions, and support response for multiple reactor sites. Compliance with these requirements, as applicable to the proposed changes, are discussed in Sections 3.1 through 3.9 above.

10 CFR 50.47(b)(3) requires that arrangements to accommodate State and Local staff at the licensee's EOF have been made. Compliance with this requirement is discussed in Section 3.1.7 above.

10 CFR 50.47(b)(8) requires that adequate emergency facilities and equipment to support the emergency response are provided and maintained. Following approval and implementation of the proposed changes involving the relocation and consolidation of CCNPP EOF/JIC, CCNPP will still have an EOF from which effective direction can be given and effective control can be exercised during an emergency. Furthermore, the Coatesville EOF/JIC meets the EOF criteria in NUREG-0696, as discussed below.

10 CFR 50.47(b)(9) requires that adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use. This requirement is encompassed in the EOF criteria in NUREG-0696, as discussed below.

Section 4 of NUREG-0696 provides guidance on the overall criteria for the EOF:

- Functions
- Location, structure, and habitability
- Staffing and training
- Size

- Radiological monitoring
- Communications
- Instrumentation, data system equipment, and power supplies
- Technical data and data system
- Records availability and management

Compliance with these criteria, as applicable to the proposed change, is discussed in Sections 3.1-3.9 above.

NUREG-0696 expands on the Function criteria by providing the following requirements (this is the expanded list included in NSIR/DPR-ISG-01):

- Management of overall licensee emergency response
- Coordination of radiological and environmental assessment
- Determination of recommended public protective actions
- Notification of offsite agencies
- Coordination of event, plant, and response information provided to public information staff for dissemination to the media and public
- Staffing and activation of the facility within time frames and at emergency classification levels defined in the licensee emergency plan
- Coordination of emergency response activities with Federal, State, tribal, and local agencies
- Locating NRC and offsite agency staff closer to a site if the EOF is greater than 25 miles from the site
- Obtaining and displaying key plant data and radiological information for each unit or plant the EOF serves
- Analyzing plant technical information and providing technical briefings on event conditions and prognosis to licensee staff and offsite agency responders for each type of unit or plant
- Effectively responding to and coordinating response efforts for events occurring simultaneously at more than one site for a consolidated EOF

Compliance with each of these items is discussed in Section 3.1 above.

NRC Interim Staff Guidance NSIR/DPR-ISG-01 provides updated guidance information for addressing Emergency Planning (EP) requirements for nuclear power plants. This guidance is based on changes to EP regulations in 10 CFR 50.47 and 10 CFR 50, Appendix E, that were published in the *Federal Register* on November 23, 2011 (i.e., 76FR72560). This ISG identified several areas for potential EP program improvement and increased clarity based on the experience gained from EP program implementation since the TMI accident, recent technological advances, and lessons learned from actual events, drills, and exercises. The ISG recognized that previous regulatory standards did not address the capabilities and functional requirements for a consolidated EOF, such as capabilities for handling simultaneous events at two or more sites or providing for the NRC and offsite officials to relocate to a facility nearer the site if they desire when an EOF is located at a substantial distance from a site. The NRC revised the regulations

and provided associated guidance to reflect a performance-based approach for EOFs which provide functional requirements for these facilities, thus ensuring that the necessary capabilities are in place to protect public health and safety.

4.2 Precedent

Recent applicable precedent involves Duke Energy's licensing action regarding a multi-site EOF which supports the Brunswick Steam Electric Plant, Shearon Harris Nuclear Power Plant, H. B. Robinson Steam Electric Plant, Catawba Nuclear Station, McGuire Nuclear Station, and Oconee Nuclear Station, which was approved by the NRC in Reference 7. All six (6) Duke Energy sites are greater than 25 miles from the EOF, ranging from approximately 29 to 118 miles.

As noted, Exelon currently maintains the Coatesville multi-site EOF/JIC facility for LGS, PBAPS, and TMI, which was approved for use in References 1 and 2. Exelon also maintains a combined EOF/JIC facility for its sites in the Midwest. This facility supports the Braidwood, Byron, Clinton, Dresden, LaSalle, and Quad Cities stations. The Midwest facility was established and approved for use as documented in an NRC letter dated February 9, 1999, and for Clinton the relocation/consolidation efforts were approved by the NRC in Reference 8. All six (6) of Exelon Midwest sites are greater than 25 miles from the combined EOF/JIC facility, ranging from approximately 58 to 145 miles.

Further, as referenced in SECY-18-0013, dated January 25, 2018, other sites include the following Commission-Approved EOFs located more than 25 miles from their respective nuclear power reactor sites.

Commission-Approved Emergency Operations Facilities
Located More Than 25 Miles from Respective Nuclear Power Reactor Site(s)

Utility	Applicable Nuclear Power Reactor Sites	Facility Location
NRC Region I:		
Exelon Generation Co., LLC	• Limerick Generating Station, Units 1/2 • Peach Bottom Atomic Power Station, Units 1/2 • Three Mile Island Nuclear Station, Unit 1	Coatesville, PA
Dominion Nuclear Connecticut, Inc.	• Millstone Power Station, Units 2/3	Hartford, CT (backup[1])
NRC Region II:		
Duke Energy Carolinas, LLC	• Brunswick Steam Electric Plan, Units 1/2 • Catawba Nuclear Station, Units 1/2 • H.B. Robinson Steam Electric Plant, Unit 2 • Oconee Nuclear Station, Units 1/2/3 • Shearon Harris Nuclear Power Plant, Units 1/2 • McGuire Nuclear Station, Units 1/2 • William States Lee II Nuclear Station, Units 1/2 (COL: not yet constructed)	Charlotte, NC
Southern Nuclear Operating Co.	• Edwin I. Hatch Nuclear Plant, Units 1/2 • Joseph M. Farley Nuclear Plant, Units 1/2	Birmingham, AL

Utility	Applicable Nuclear Power Reactor Sites	Facility Location
	• Vogtle Electric Generating Plant, Units 1/2 • Vogtle Electric Generating Plant, Units 3/4 (COL: under construction)	
Tennessee Valley Authority	• Browns Ferry Nuclear Plant, Units 1/2/3 • Sequoyah Nuclear Plant, Units 1/2 • Watts Bar Nuclear Plant, Unit 1	Chattanooga, TN
Virginia Electric & Power Co. / Dominion Virginia Power	• North Anna Power Station, Units 1/2 • North Anna Power Station, Unit 3 (COL: not yet constructed) • Surry Power Station, Units 1/2	Glen Allen, VA (backup[1])
NRC Region III:		
Exelon Generation Co., LLC	• Braidwood Station, Units 1/2 • Byron Station, Units 1/2 • Clinton Power Station, Unit 1 • Dresden Nuclear Power Station, Units 2/3 • LaSalle County Station, Units 1/2 • Quad Cities Nuclear Power Station, Units 1/2	Warrenville, IL
Northern States Power Co.	• Monticello Nuclear Generating Plant, Unit 1 • Prairie Island Nuclear Generating Plant, Units 1/2	Minneapolis, MN (backup[1])

1 Per §IV.E.8(b) to Appendix E of 10 CFR Part 50, a licensee with a primary Emergency Operations Facility that is located less than 10 miles from the nuclear power reactor site(s), must have a backup facility located between 10 miles and 25 miles of the nuclear power reactor site(s). Prior Commission approval is required if licensee locates either its primary or backup EOF more than 25 miles from the nuclear power reactor site(s).

4.3 No Significant Hazards Consideration Determination

In accordance with 10 CFR 50.90 Exelon Generation Company, LLC (Exelon) is submitting a license amendment request to relocate and consolidate the Emergency Operations Facility (EOF) and Joint Information Center (JIC) for Calvert Cliffs Nuclear Power Plant (CCNPP) with the existing Exelon Mid-Atlantic Corporate EOF and JIC (hereafter referred to as the Coatesville EOF/JIC) located in Coatesville, Pennsylvania. The Coatesville EOF/JIC is currently used as an EOF/JIC facility for Limerick Generating Station (LGS), Units 1 and 2; Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3; and Three Mile Island Nuclear Station (TMI). The proposed changes only involve supporting the relocation and consolidation of the CCNPP EOF/JIC at the Coatesville facility. There are no changes proposed for LGS, PBAPS, and TMI. Therefore, Exelon requests amendments to the following licenses for CCNPP as required:

- DPR-53, DPR-69, and SNM-2505

The proposed changes have been reviewed considering the applicable requirements of 10 CFR 50.47, 10 CFR 50, Appendix E and other applicable NRC guidance criteria. Exelon has evaluated the proposed relocation and consolidation of the CCNPP EOF/JIC with the existing Coatesville EOF/JIC facility and determined that the proposed changes do not involve a

Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards, set forth in 10 CFR 50.92, *"Issuance of amendment,"* is provided below.

1. ***Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?***

   Response: No.

   The proposed change relocates the CCNPP EOF/JIC from its present location to the existing Coatesville EOF/JIC. This EOF/JIC facility currently functions as the EOF/JIC for LGS, PBAPS, and TMI. The functions and capabilities of the relocated CCNPP EOF/JIC will continue to meet the applicable regulatory requirements. The proposed changes have no effect on normal plant operation. The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not alter or prevent the ability of the emergency response organization to perform its intended functions to mitigate the consequences of an accident or event.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. ***Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?***

   Response: No.

   The proposed change only impacts the implementation of the CCNPP Emergency Plan by relocating and consolidating its EOF/JIC with the established Coatesville EOF/JIC. The functions and capabilities of the relocated CCNPP EOF/JIC will continue to meet the applicable regulatory requirements. The proposed change has no impact on the design, function, or operation of any plant SSCs. The proposed change does not affect plant equipment or accident analyses. The proposed change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed change does not introduce failure modes that could result in a new accident, and the proposed change does not alter assumptions made in the safety analysis.

   Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. ***Does the proposed change involve a significant reduction in a margin of safety?***

Response: No.

The proposed change only impacts the implementation of the CCNPP Emergency Plan by relocating its current EOF/JIC to the existing Coatesville EOF/JIC. The functions and capabilities of the relocated EOF/JIC will continue to meet the applicable regulatory requirements.

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public. The proposed change is associated with the Emergency Plans for CCNPP and does not impact operation of the plant or its response to transients or accidents. The proposed change does not affect the Technical Specifications. The proposed change does not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed change. Safety analysis acceptance criteria are not affected. The proposed change does not adversely affect existing plant safety margins, or the reliability of the equipment assumed to operate in the safety analyses. There are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety as a result of the proposed change.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

4.4 Conclusions

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

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared regarding the proposed change.

6.0 REFERENCES

1. Letter from Steven A. Varga, U.S. Nuclear Regulatory Commission (NRC), to George A. Hunger, Philadelphia Electric Company – "Combined EOF for Peach Bottom and Limerick," dated March 29, 1990

2. Letter from Richard J. Laufer, U.S. Nuclear Regulatory Commission (NRC), to John L. Skolds, AmerGen Energy Company, LLC – "Three Mile Island Nuclear Station, Unit 1 (TMI-1), Emergency Operations Facility (EOF) Relocation and Consolidation with the Peach Bottom Atomic Power Station (PBAPS) and Limerick Generating Station (LGS) Common EOF (TAC No. M85550)," dated March 20, 2003

3. NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

4. Regulatory Guide 1.101, "Emergency Response Planning and Preparedness for Nuclear Power Reactors"

5. NUREG-0696, "Functional Criteria for Emergency Response Facilities"

6. NSIR/DPR-ISG-01, "Interim Staff Guidance - Emergency Planning for Nuclear Power Plants"

7. Letter from Dennis J. Galvin, U.S. Nuclear Regulatory Commission (NRC), to Kelvin Henderson, Duke Energy Corporation – "Brunswick Steam Electric Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant, Unit 1; H. B. Robinson Steam Electric Plant Unit No. 2; and Oconee Nuclear Station, Units 1, 2, and 3 – Issuance of Amendments to Consolidate Emergency Operations Facilities and Associated Emergency Plan Changes (CAC NOS. MF7650, MF7651, MF7652, MF7653, MF7654, MF7655, MF7656, MF7657, MF7658, MF7659, AND MF7660)," dated August 21, 2017

8. Letter from Anthony J. Mendiola, U.S. Nuclear Regulatory Commission (NRC), to Oliver D. Kingsley, Exelon Generation Company, LLC – "Clinton Power Station, Unit 1 - Emergency Operations Facility (TAC No. MB1687)," dated March 22, 2002 (ML020800179)

Enclosure 2

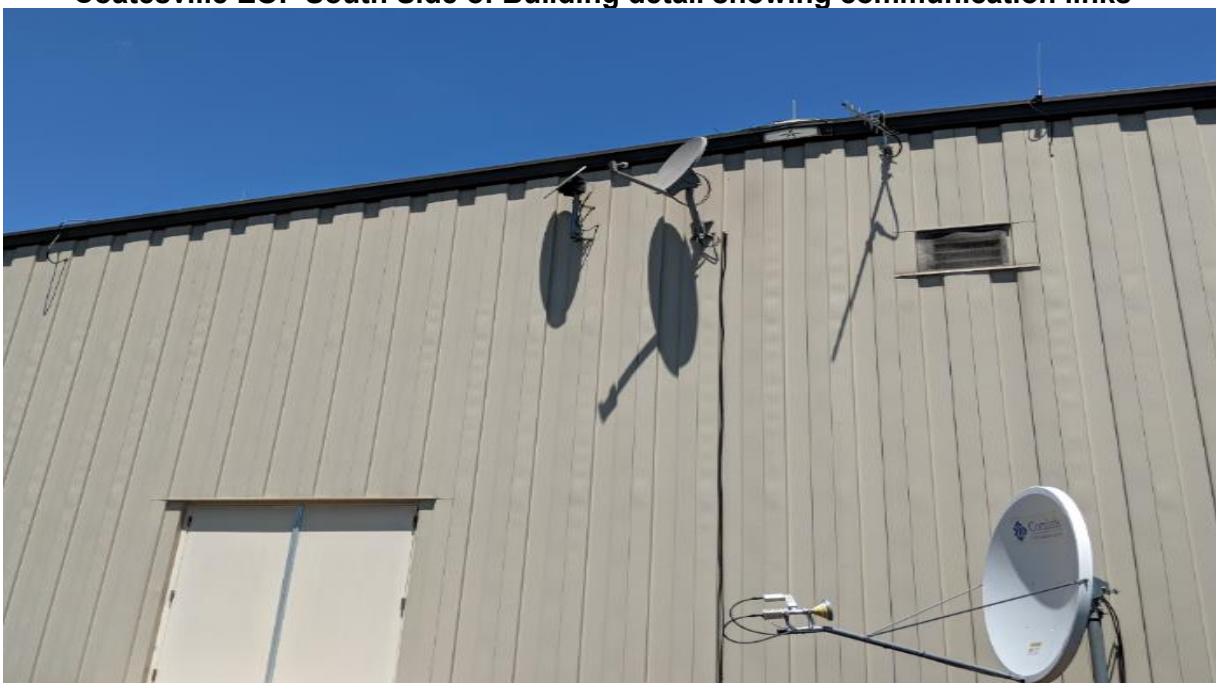
License Amendment Request

Coatesville Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

Facility Photographs and Diagram

Coatesville EOF Main Entrance on West side of building

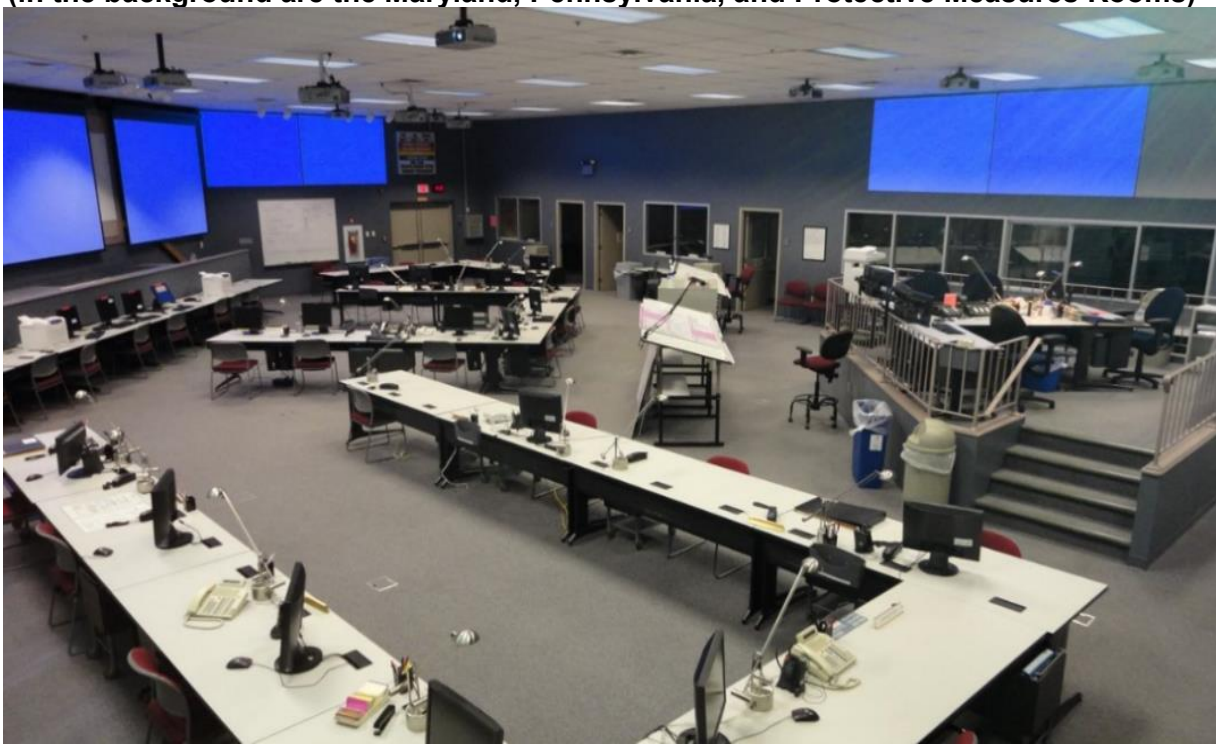
Coatesville EOF South Side of Building detail showing communication links



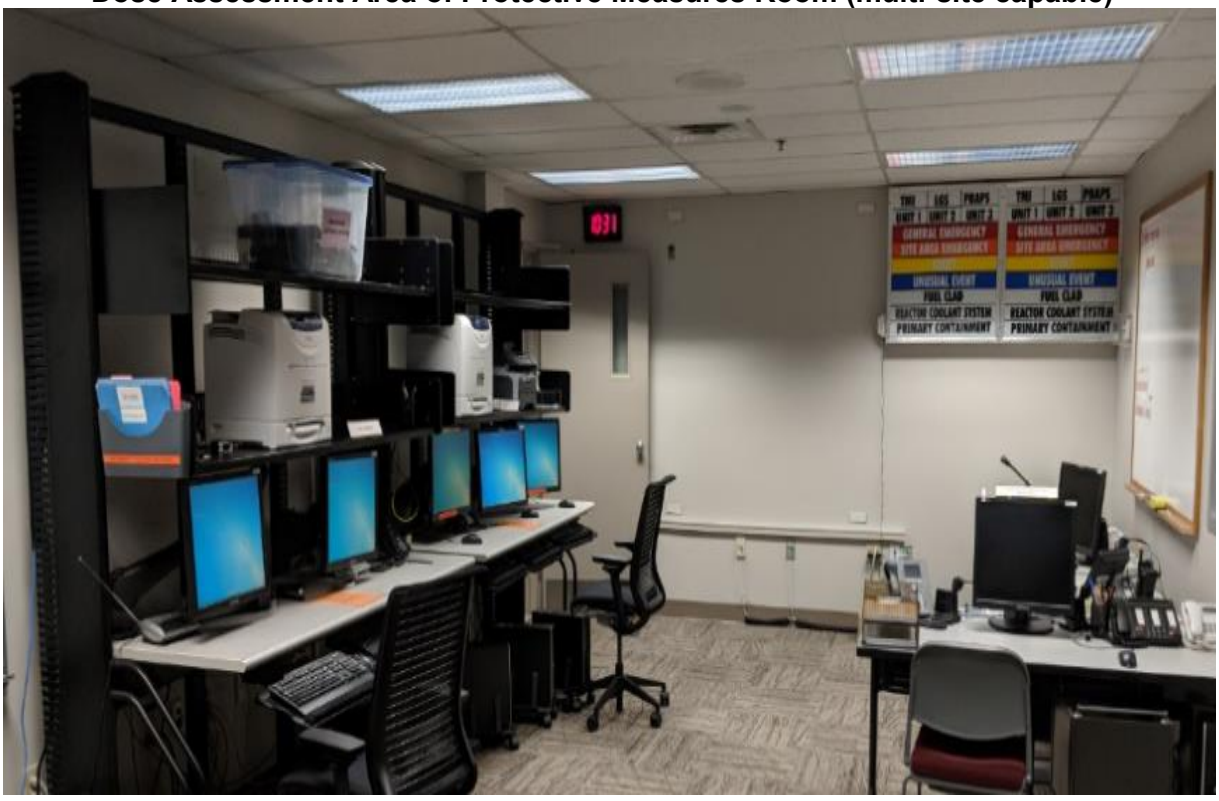
Coatesville EOF Emergency Diesel

Coatesville EOF Battery Room

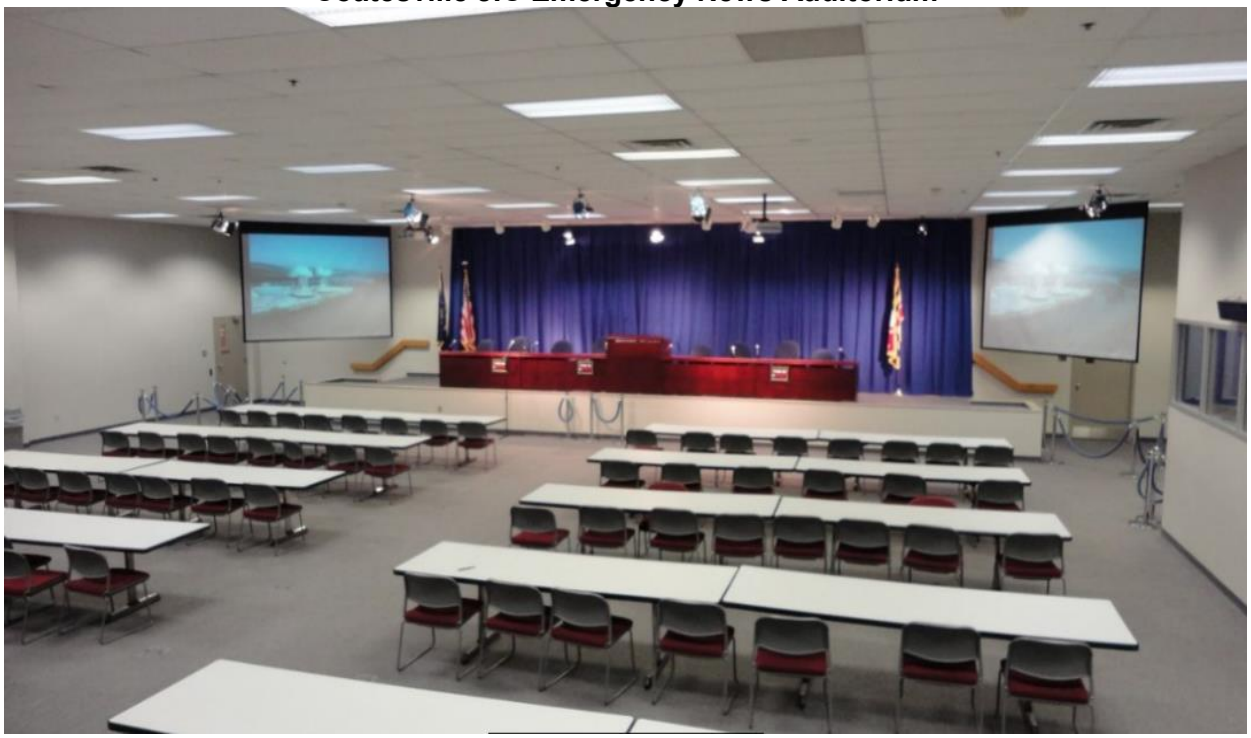
Coatesville EOF Main Operations Room
(in the background are the Maryland, Pennsylvania, and Protective Measures Rooms)



Coatesville EOF
Dose Assessment Area of Protective Measures Room (multi-site capable)

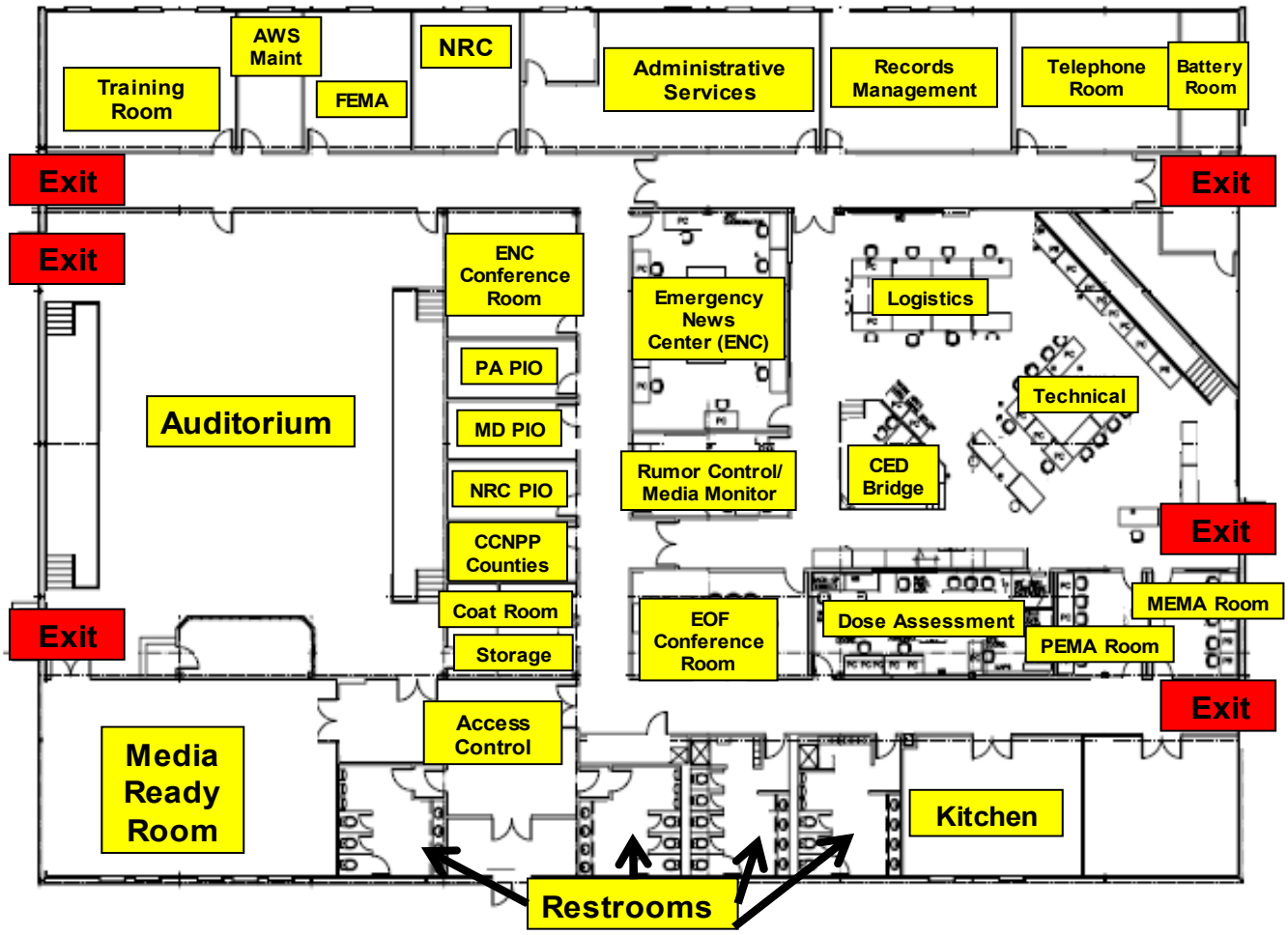


Coatesville JIC Emergency News Auditorium



Coatesville JIC Media Work Area

Coatesville EOF/JIC Layout Diagram (182’ x 122’)



Near Site Facility – Aerial View

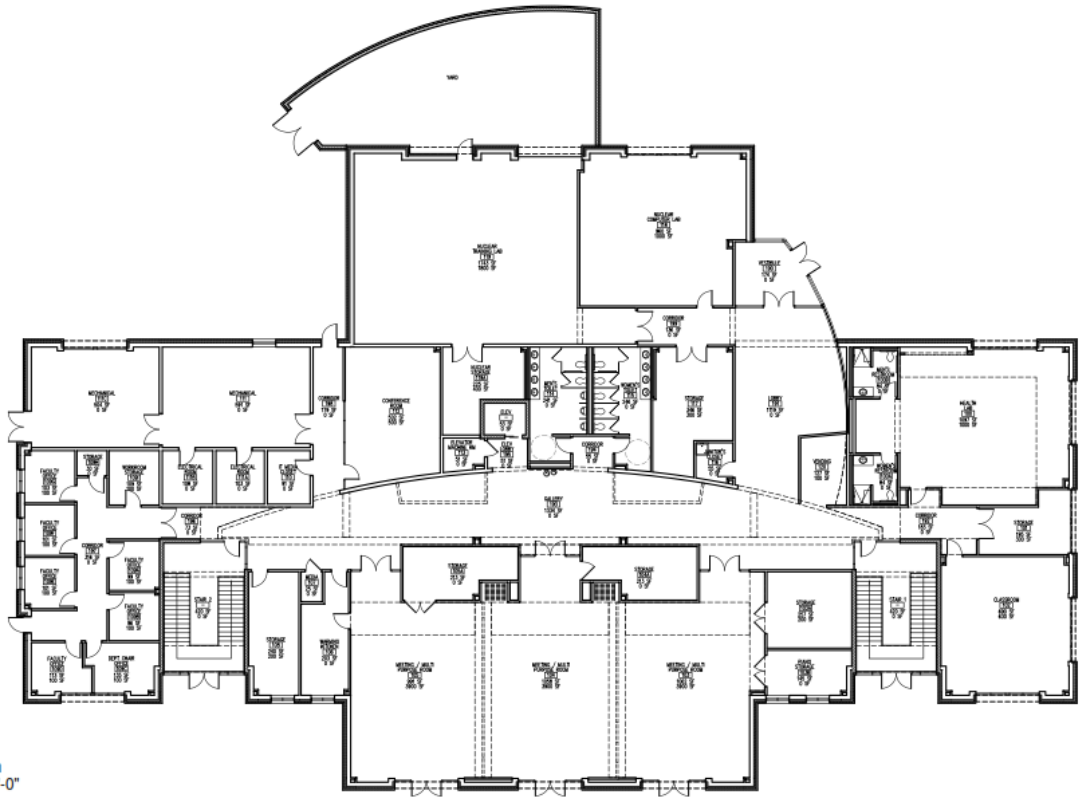
(College of Southern Maryland, Prince Frederick Campus)

Near Site Facility - Dedicated Areas

The areas listed are designated for CCNPP use per the Letter of Agreement with the College of Southern Maryland (Prince Frederick Campus) (Reference 4)

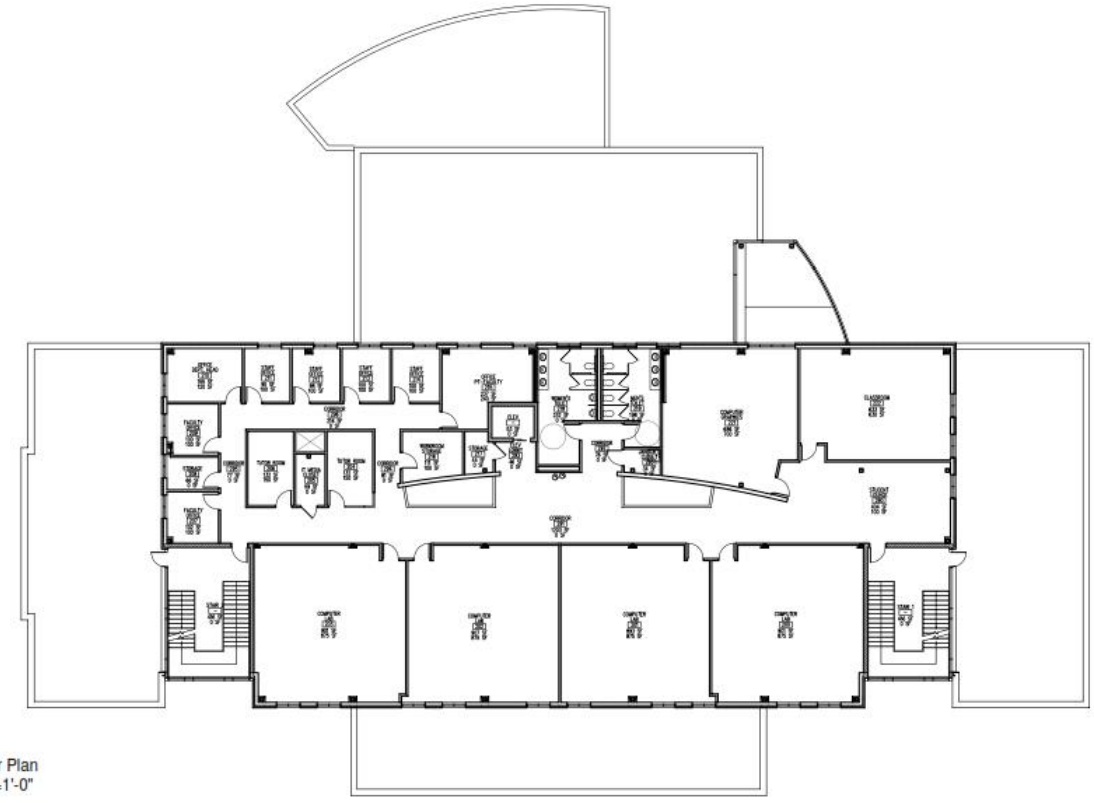
- The Prince Frederick Building B (PFB) multi-purpose room (3500 ft^2).
- The PFB NET Labs (2700 ft^2).
- Room 112 for the NRC (500 ft^2).
- Room 221 for Offsite Agencies (686 ft^2).
- All parking lots adjacent to the PFB for personnel parking.
- The Northeast parking lot for helicopter landing.
- Storage closet space for written procedures, laptop computers, sign-in boards, and other materials.
- Phones, phone lines, and bathroom facilities.

Near Site Facility - 1st Floor Plan



First Floor Plan
Scale: 1/16"=1'-0"
08.05.10

Near Site Facility - 2nd Floor Plan



Second Floor Plan
Scale: 1/16"=1'-0"
08.05.10

Enclosure 3

License Amendment Request

Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

Calvert Cliffs Nuclear Power Plant Emergency Plan Mark-up

EP-AA-1000 Standard Plan Changes

EP-AA-1011 Annex Changes

Exelon Radiological Standardized Emergency Plan

EP-AA-1000

Mark-up Pages

Cover Page
G-3
H-4

EXELON NUCLEAR

STANDARDIZED RADIOLOGICAL EMERGENCY PLAN

4. Coordination of Public Information

a. The JIC is staffed by Exelon and government public information representatives who will be the source of public information during an emergency at the station. The Corporate Spokesperson is the primary spokesperson for Exelon Nuclear. The Corporate Spokesperson has direct access to all necessary information (see Section B.5).

b. The JIC is staffed by federal, state, county, and utility personnel to assure timely, periodic exchange and coordination of information. Representatives coordinate information prior to conducting news briefings.

c. Rumors or misinformation are identified during an emergency by the media/rumor control monitors. They respond to public and news media calls and monitor media reports.

d. The common MW Region JIC is located west of Chicago, in Warrenville IL, in the Exelon Nuclear Cantera facility. This facility supports the Braidwood, Byron, Clinton, Dresden, LaSalle and Quad Cities stations.

The JIC for the Calvert Cliffs, ~~MA Region~~ Three Mile Island, Limerick and Peach Bottom Stations is shared~~co-located~~ with the EOF at 175 North Caln Road, Coatesville, Pennsylvania.

~~The JIC for Calvert Cliffs Station is co-located with the EOF about twelve miles from the site, in Calvert Industrial Park, Skipjack Road at Hallowing Point Road.~~

~~—~~The JIC for the Ginna Station is located at 1255 Research Forest, Macedon, NY.

The JIC for the Nine Mile Point Station is located near the Oswego County Airport, on County Route 176 in the Town of Volney, New York approximately 12 miles from the site.

5. Media Orientation

Emergency Preparedness, in conjunction with Exelon Communications and Public Affairs Department, offers training (at least annually) to acquaint news media with the E-Plan, information concerning radiation, and points of contact for release of public information in an emergency. Training is provided for those media agencies that accept the training offer.

- Coordination of radiological and environmental assessments.
- Determination of recommended public protective actions.
- Management of recovery operations.
- Coordination of emergency response activities with federal, state, and local agencies.

The common MW Region EOF is located west of Chicago, in Warrenville IL, in the Exelon Nuclear Cantera facility. This facility supports the Braidwood, Byron, Clinton, Dresden, LaSalle and Quad Cities stations.

The common MA Region EOF is located west of Philadelphia, in Coatesville PA. This facility supports Calvert Cliffs, Limerick, Peach Bottom and TMI Stations.

~~The EOF for Calvert Cliffs Stations is co-located with the JIC about twelve miles from the site, in Calvert Industrial Park, Skipjack Road at Hallowing Point Road.~~

The EOF for Nine Mile Point Station is a Co-located Licensee (Nine Mile Point and James A Fitzpatrick) controlled and operated emergency response facility located approximately 12 miles from the reactor site on County Route 176, just outside Fulton, NY, adjacent to the Oswego County Airport.

The EOF for Ginna Station is located at 1255 Research Forest, Macedon, NY.

These facilities are designed with the following considerations:

- The location provides optimum functional and availability characteristics for carrying out overall strategic direction of Exelon Nuclear onsite and support operations, determination of public protective actions to be recommended to offsite officials, and coordination with Federal, state and local organizations.
- It is well engineered for the design life of the plant and is of sufficient size to accommodate about 50 people.
- It is equipped with reliable voice communications capabilities to the TSC, the OSC, the Control Room, NRC, and state and local emergency operations centers. In addition, the EOF has facsimile transmission capability.
- Equipment is provided to gather, store, and display data needed in the EOF to analyze and exchange information on plant conditions with the Station. The EOF technical data system receives, stores, processes, and displays information sufficient to perform assessments of the actual and potential onsite and offsite environmental consequences of an emergency condition.
- The EOF has ready access to plant records, procedures, and emergency plans needed for effective overall management of Exelon Nuclear emergency response resources.

Calvert Cliffs Emergency Plan Annex

EP-AA-1011

Mark-up Pages

Cover Page
CC 2-9
CC 5-1
CC 5-2
CC 5-3
CC 5-12
A6-1
A6-2
A6-3

EXELON NUCLEAR

STANDARDIZED RADIOLOGICAL EMERGENCY PLAN

l. Determine and notify appropriate authorities when people may return to evacuated areas.

m. Provide direction of Ingestion Pathway Coordinating Committee activities.

4. The State Department of Health and Mental Hygiene makes available resources and personnel to perform the following:
   a. Dispatch agricultural sampling teams to effected areas.
   b. Provide guidance to the State Department of Agriculture for controlling the use of milk and agricultural products.
   c. Provide laboratory analysis of field samples.
   d. Support Ingestion Pathway Coordination Committee activities.

5. The Maryland State Police render assistance as follows:
   a. Establish off-site command post in vicinity of the plant site.
   b. Evacuate and exclude individuals from designated public and private areas.
   c. Control traffic into and out of designated areas.
   d. Transport Maryland Department of Environment Monitoring Teams on request.
   e. Assist in medical evacuation via helicopter.
   f. Aid in emergency communications.
   g. Coordinate with County Sheriffs to assist in communications, evacuations, and traffic control.

6. The Maryland Department of Natural Resources Police Force and the Fisheries Service render assistance as follows:
   a. Evacuate and prevent entry to designated water areas.
   b. Aid in emergency communications.
   c. Assist in radiological monitoring.
   d. Assist in waterborne population evacuation as required.

7. The Maryland Emergency Management Agency Public Information Officer is responsible for coordination of State and local information releases. The Public Information Officer coordinates with the Exelon~~Calvert Cliffs Nuclear Power Plant's~~ Joint Information Center Director to prevent conflicting statements between State/local and Calvert Cliffs Nuclear Power Plant's spokespersons.

Section 5: Facilities and Equipment

5.1 Facilities

Specific locations on-site and off-site have been designated as emergency control and support centers. These centers are equipped to control, assess, and correct emergency conditions and allow timely communication between centers. The centers' functional objectives are presented in Figure 5-1, Facilities Functional Objectives.

5.1.1 Control Room

Plant operations are directed from the Control Room. Nuclear plant instrumentation, Area and Process Radiation Monitoring System instrumentation, controls and instrumentation for reactor and turbine generator operation are provided here. A description of the Control Room is contained in the Updated Final Safety Analysis Report (Ref. 55) Section 7.6.2. Emergency equipment available to the Control Room is listed in Emergency Plan Implementation Procedures.

5.1.2 Emergency Operations Facility (EOF)

1. The Emergency Operations Facility floor plan is shown in Figure 5-2, Emergency Operations Facility, and its location at 175 North Caln Road, ~~in~~ Coatesville, Pennsylvania~~Calvert County~~ is ~~is~~ shown in Figure 5-3, Emergency Operations Facility and Joint Information Center Location.
2. The EOF is the location where the Corporate Emergency Director will direct a staff in evaluating and coordinating the overall company activities involved with an emergency.

   The EOF has facilities and capabilities for:

   - Management of overall emergency response
   - Coordination of radiological and environmental assessment (including receipt and analysis of field monitoring data and sample media coordination)
   - Determination of recommended public protective actions and Notification of off-site agencies.
   - Coordination of event, plant and response information provided to public information staff for dissemination to the media and public
   - Staffing and activation of the facility within time frames and at emergency classification levels defined in the emergency plan
   - Coordination of emergency response activities with Federal, State, and local agencies
   - Provisions are made for acquisition, displaying, and evaluation of radiological, meteorological, and plant system data
   - Analyzing plant technical information and providing technical briefing on event conditions and prognosis to licensee staff and off-site agencies

The EOF is used for continued evaluation and coordination of activities related to an emergency having actual or potential environmental consequences. The EOF is activated during an Alert, Site Area Emergency or General Emergency. Space is provided so that NRC, Federal, State, and local response agencies can coordinate their activities from this location.

3. The Emergency Operations Facility is located about 115 ~~twelve~~ miles from the site, at ~~in Calvert~~ 175 North Caln Road in Coatesville, Pennsylvania~~Industrial Park, Skipjack Road at Hallowing Point Road~~. It is a well- engineered structure for design life of Calvert Cliffs Nuclear Power Plant. Detailed emergency equipment listing for the Emergency Operations Facility is contained in Emergency Plan Implementation Procedures.

5.1.3 Technical Support Center

1. The location of the Technical Support Center at Calvert Cliffs Nuclear Power Plant is shown in Figure 5-4, TSC Location Relative to Control Room.
2. The Technical Support Center is a work area for designated technical, engineering, and management personnel who provide technical support to plant operations personnel during emergency conditions. Technical Support Center resources are used to provide guidance and technical assistance to the Control Room and supports the SED assigned Command and Control Functions. Technical Support Center facilitates reactor operator relief from peripheral duties and communications not directly related to reactor system operations. The Technical Support Center will be fully operational within approximately one hour after declaration.
3. The Technical Support Center is located on the 55 foot elevation with an Annex on the 58 foot elevation. It is contiguous with and has direct (door) access from the Control Room (can also be accessed from the Turbine Hall). Habitability duplicates Control Room for postulated accident conditions. Space available is considered adequate for personnel and equipment assigned (NRC Inspection Report dated 5/26/1982 EP Appraisal Combined Inspection Report Nos. 50-317/81-19 and 50-318/81-18). Radiological protection of personnel is afforded by radiation monitoring personnel.
4. The Plant Process Computers provide data gathering, trending, storage, and display to permit accurate accident assessment with minimum interference of Control Room operation:
   - Safety Parameter Display System provides continuous indication of plant parameters from which quick assessments of plant safety status can be made.
   - Plant Process Computer provides real time and historical displays and reports to assist in analysis of unit shutdown.

These systems have backup battery power supply to maintain continuity of Technical Support Center functions and immediately resume data acquisition, storage, and display if primary source loss occurs.

Parameters monitored in the Technical Support Center include NUREG 0737 Supplement 1 variables as modified by Calvert Cliffs Nuclear Power Plant's submittals to NRC.

5. The Technical Support Center contains or has access to complete and up-to-date plant records and procedures including:
   a. Drawings/Schematics
   b. Technical Specifications
   c. Operating Instructions/Abnormal Operating Procedures/Emergency Operating Procedures
   d. Final Safety Analysis Report
   e. Emergency Plan Implementation Procedures
6. Detailed emergency equipment listing is contained in Emergency Plan Implementation Procedures.

5.1.4 Operations Support Center

The Operations Support Center is located within the protected area (co-located with the Outage Control Center (OCC)) separate from Control Room and Technical Support Center. It provides space for the assembly of support personnel during an emergency. From this location in-plant support (e.g., operations and maintenance), required to bring the plant to a safe, stable condition is coordinated. In this way, access to the Control Room is restricted to personnel specifically requested by the Control Room. No specific habitability criteria are established. Detailed Operations Support Center emergency equipment listing is contained in Emergency Plan Implementation Procedures. Implementation Procedures include provisions for performing Operations Support Center functions by essential support people from a second (alternate) location.

5.1.5 Joint Information Center

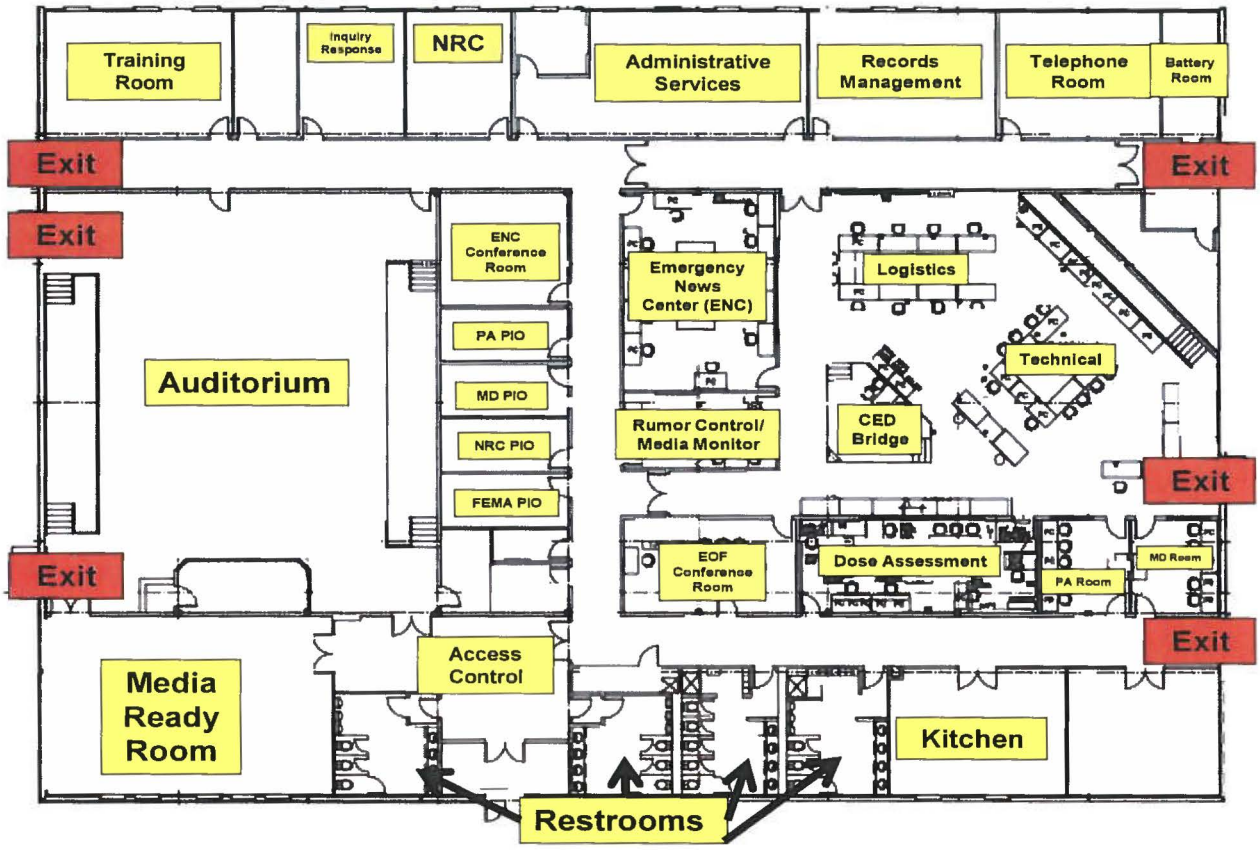
1. The Joint Information Center location is shown in Figure 5-3, Emergency Operations Facility and Joint Information Center Location.

~~2. The Joint Information Center is a central location for Calvert Cliffs Nuclear Power Plant personnel to meet with NRC, State and County representatives for releasing emergency announcements to news media.~~

~~3.~~2. The Joint Information Center is located about 115 ~~twelve~~ miles from the site, in ~~Calvert Industrial Park~~Coatesville, Pennsylvania~~Skipjack Road at Hallowing Point Road~~. It is a well- engineered structure for design life of the ~~Calvert Cliffs N~~nuclear ~~P~~power ~~P~~plants it supports.

~~4.~~3. The Joint Information Center will be activated for a Site Area Emergency and General Emergency. In the first few hours of an emergency (while the Joint Information Center is being activated) Corporate Communications will provide an information clearing house from their current

Figure 5-2, Emergency Operations / Joint Information Center Facility



Appendix 6

Calvert Cliffs Communication Equipment

1. **Plant Page**

   A. Description:

   CCNPP is divided into six paging zones with an All Call and Priority Paging option.

2. **Administrative Telephone System** – Commercial phones system located at each of the ERFs that provide communications between facilities and outside agencies.

3. **Dedicated Offsite Agency Telephone**

   A. Description:

   1. Provides communications between CCNPP locations and offsite emergency facilities.
   2. Provides offsite agencies with the capability to independently dial other outside agencies and CCNPP or Emergency Operations Facility locations.
   3. Utilizes dedicated, leased telephone lines via CCNPP telephone system network.
   4. Battery-backed power supply provides for full system operability in the event of loss of AC power.
   5. Dedicated Offsite Agency phone located onsite is equipped with one or more standard outside telephone lines for access to Administrative Telephone System features (for example, plant page) and routine outside system dialing.

   B. The dedicated Offsite Agency Telephones are located in the Control Room, EOF, Safe Shutdown Panels.

   ~~C.~~

~~4. **Microwave Telephones ("Hot Lines")**~~

~~The Microwave telephones provide direct, point-to-point communications via company owned microwave system. The Microwave Telephones are located at the following locations:~~

- ~~**From** Emergency Operations Facility (Dose Assessment Room) to the Electric Operations Building~~
- ~~**From the** Emergency Operations Facility (Dose Assessment Room/ State Room) to the Maryland Department of Environment~~
- ~~**From the** Emergency Operations Facility to the Information Technology, Operations and Technical Support Dept (Owings Mills Facility)~~
- ~~**From the** Emergency Operations Facility (Security Room) to the Corporate Security (Owings Mills Facility)~~

~~5~~4. **FTS-2001 Telephone System**

The FTS 2001 Telephone System provides CCNPP and onsite NRC personnel direct communications with NRC Operations Center using dedicated telephone systems. FTS-2001 provides separate phones for:

- Emergency Notification System (ENS) - Initial Notification by CCNPP to NRC Operations Center (identified by the red label). (MCR, EOF, TSC)
- Health Physics Network (HPN) - Initial Notification by CCNPP to NRC Operations Center (identified by the red label). (EOF, TSC, TSC Annex)
- Reactor Safety Counterpart Link (RSCPL) - For discussions between onsite and offsite NRC representatives on plant and equipment conditions. (TSC, EOF)
- Protective Measures Counterpart Link (PMCPL) - For internal NRC discussions on radiological releases, meteorological conditions, and the need for protective actions. (TSC, EOF)
- Management Counterpart Link (MCL) - For internal discussions between NRC Executive Team Director and NRC Director of Site Operations. (TSC, EOF)

~~6~~5. **Plain Old Telephone System (POTS)**

Plain Old Telephone System (POTS) phones provide backup communications for the Emergency Response Organization to utilize when needing to communicate information between CCNPP Emergency Response Facilities and to Offsite Agencies.

The POTS phones are located in the following locations:

1. Control Room
2. TSC
3. OSC
4. SAS

~~7~~6. **Emergency Response Radio Network**

Description – **The Calvert Cliffs Radio system consists of a** CCNPP-owned 800 MHz radio system which provides communications between emergency centers. The system consists of Communication Control Units, Desk Set Control Units, Mobile Radios and Hand-Held Units.

The Radio system provides backup communications between CCNPP and offsite agencies, as well as communication between CCNPP radiological monitoring teams and emergency centers, Security, NPO/First Aid/Fire Brigade and Control Room. The Radio system does NOT provide communications to radiological monitoring teams from the Emergency Operations Facility (EOF). Satellite Radios and Cell Phones are used to communicate with the radiological monitoring teams from the EOF.

Radio Units are located in the following locations:

- Central Alarm Station
- Secondary Alarm Station

- Control Room (CRS desk)
- Operational Support Center
- Technical Support Center
- Technical Support Center Annex
- ~~Emergency Operations Facility - Dose Assessment Room~~
- ~~Emergency Operations Facility - Security Room~~
- ~~Emergency Operations Facility - Communicator~~
- Farm Demo Building
- Nuclear Office Facility
- Secondary Fire Brigade Locker (B.5.b Equipment)
- Mobile radios are maintained in several vehicles assigned to CCNPP.

Exelon Radiological Standardized Emergency Plan

EP-AA-1000

Clean Pages

Cover Page
G-3
H-4

EXELON NUCLEAR

STANDARDIZED RADIOLOGICAL EMERGENCY PLAN

4. Coordination of Public Information

a. The JIC is staffed by Exelon and government public information representatives who will be the source of public information during an emergency at the station. The Corporate Spokesperson is the primary spokesperson for Exelon Nuclear. The Corporate Spokesperson has direct access to all necessary information (see Section B.5).

b. The JIC is staffed by federal, state, county, and utility personnel to assure timely, periodic exchange and coordination of information. Representatives coordinate information prior to conducting news briefings.

c. Rumors or misinformation are identified during an emergency by the media/rumor control monitors. They respond to public and news media calls and monitor media reports.

d. The common MW Region JIC is located west of Chicago, in Warrenville IL, in the Exelon Nuclear Cantera facility. This facility supports the Braidwood, Byron, Clinton, Dresden, LaSalle and Quad Cities stations.

The JIC for the Calvert Cliffs, Three Mile Island, Limerick and Peach Bottom Stations is shared with the EOF at 175 North Caln Road, Coatesville, Pennsylvania.

The JIC for the Ginna Station is located at 1255 Research Forest, Macedon, NY.

The JIC for the Nine Mile Point Station is located near the Oswego County Airport, on County Route 176 in the Town of Volney, New York approximately 12 miles from the site.

5. Media Orientation

Emergency Preparedness, in conjunction with Exelon Communications and Public Affairs Department, offers training (at least annually) to acquaint news media with the E-Plan, information concerning radiation, and points of contact for release of public information in an emergency. Training is provided for those media agencies that accept the training offer.

- Coordination of radiological and environmental assessments.
- Determination of recommended public protective actions.
- Management of recovery operations.
- Coordination of emergency response activities with federal, state, and local agencies.

The common MW Region EOF is located west of Chicago, in Warrenville IL, in the Exelon Nuclear Cantera facility. This facility supports the Braidwood, Byron, Clinton, Dresden, LaSalle and Quad Cities stations.

The common MA Region EOF is located west of Philadelphia, in Coatesville PA. This facility supports Calvert Cliffs, Limerick, Peach Bottom and TMI Stations.

The EOF for Nine Mile Point Station is a Co-located Licensee (Nine Mile Point and James A Fitzpatrick) controlled and operated emergency response facility located approximately 12 miles from the reactor site on County Route 176, just outside Fulton, NY, adjacent to the Oswego County Airport.

The EOF for Ginna Station is located at 1255 Research Forest, Macedon, NY.

These facilities are designed with the following considerations:

- The location provides optimum functional and availability characteristics for carrying out overall strategic direction of Exelon Nuclear onsite and support operations, determination of public protective actions to be recommended to offsite officials, and coordination with Federal, state and local organizations.
- It is well engineered for the design life of the plant and is of sufficient size to accommodate about 50 people.
- It is equipped with reliable voice communications capabilities to the TSC, the OSC, the Control Room, NRC, and state and local emergency operations centers. In addition, the EOF has facsimile transmission capability.
- Equipment is provided to gather, store, and display data needed in the EOF to analyze and exchange information on plant conditions with the Station. The EOF technical data system receives, stores, processes, and displays information sufficient to perform assessments of the actual and potential onsite and offsite environmental consequences of an emergency condition.
- The EOF has ready access to plant records, procedures, and emergency plans needed for effective overall management of Exelon Nuclear emergency response resources.

Calvert Cliffs Emergency Plan Annex

EP-AA-1011

Clean Pages

Cover Page
CC 2-9
CC 5-1
CC 5-2
CC 5-3
CC 5-12
A6-1
A6-2
A6-3

Exelon Generation

EP-AA-1011
Revision X

EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR CALVERT CLIFFS STATION

l. Determine and notify appropriate authorities when people may return to evacuated areas.

m. Provide direction of Ingestion Pathway Coordinating Committee activities.

4. The State Department of Health and Mental Hygiene makes available resources and personnel to perform the following:
   a. Dispatch agricultural sampling teams to effected areas.
   b. Provide guidance to the State Department of Agriculture for controlling the use of milk and agricultural products.
   c. Provide laboratory analysis of field samples.
   d. Support Ingestion Pathway Coordination Committee activities.

5. The Maryland State Police render assistance as follows:
   a. Establish off-site command post in vicinity of the plant site.
   b. Evacuate and exclude individuals from designated public and private areas.
   c. Control traffic into and out of designated areas.
   d. Transport Maryland Department of Environment Monitoring Teams on request.
   e. Assist in medical evacuation via helicopter.
   f. Aid in emergency communications.
   g. Coordinate with County Sheriffs to assist in communications, evacuations, and traffic control.

6. The Maryland Department of Natural Resources Police Force and the Fisheries Service render assistance as follows:
   a. Evacuate and prevent entry to designated water areas.
   b. Aid in emergency communications.
   c. Assist in radiological monitoring.
   d. Assist in waterborne population evacuation as required.

7. The Maryland Emergency Management Agency Public Information Officer is responsible for coordination of State and local information releases. The Public Information Officer coordinates with the Exelon Joint Information Center Director to prevent conflicting statements between State/local and Calvert Cliffs Nuclear Power Plant's spokespersons.

Section 5: Facilities and Equipment

5.1 Facilities

Specific locations on-site and off-site have been designated as emergency control and support centers. These centers are equipped to control, assess, and correct emergency conditions and allow timely communication between centers. The centers' functional objectives are presented in Figure 5-1, Facilities Functional Objectives.

5.1.1 Control Room

Plant operations are directed from the Control Room. Nuclear plant instrumentation, Area and Process Radiation Monitoring System instrumentation, controls and instrumentation for reactor and turbine generator operation are provided here. A description of the Control Room is contained in the Updated Final Safety Analysis Report (Ref. 55) Section 7.6.2. Emergency equipment available to the Control Room is listed in Emergency Plan Implementation Procedures.

5.1.2 Emergency Operations Facility (EOF)

1. The Emergency Operations Facility floor plan is shown in Figure 5-2, Emergency Operations Facility, and its location at 175 North Caln Road, Coatesville, Pennsylvania is shown in Figure 5-3, Emergency Operations Facility and Joint Information Center Location.
2. The EOF is the location where the Corporate Emergency Director will direct a staff in evaluating and coordinating the overall company activities involved with an emergency.

   The EOF has facilities and capabilities for:

   - Management of overall emergency response
   - Coordination of radiological and environmental assessment (including receipt and analysis of field monitoring data and sample media coordination)
   - Determination of recommended public protective actions and Notification of off-site agencies.
   - Coordination of event, plant and response information provided to public information staff for dissemination to the media and public
   - Staffing and activation of the facility within time frames and at emergency classification levels defined in the emergency plan
   - Coordination of emergency response activities with Federal, State, and local agencies
   - Provisions are made for acquisition, displaying, and evaluation of radiological, meteorological, and plant system data
   - Analyzing plant technical information and providing technical briefing on event conditions and prognosis to licensee staff and off-site agencies

The EOF is used for continued evaluation and coordination of activities related to an emergency having actual or potential environmental consequences. The EOF is activated during an Alert, Site Area Emergency or General Emergency. Space is provided so that NRC, Federal, State, and local response agencies can coordinate their activities from this location.

3. The Emergency Operations Facility is located about 115 miles from the site, at 175 North Caln Road in Coatesville, Pennsylvania. It is a well- engineered structure for design life of Calvert Cliffs Nuclear Power Plant. Detailed emergency equipment listing for the Emergency Operations Facility is contained in Emergency Plan Implementation Procedures.

5.1.3 Technical Support Center

1. The location of the Technical Support Center at Calvert Cliffs Nuclear Power Plant is shown in Figure 5-4, TSC Location Relative to Control Room.
2. The Technical Support Center is a work area for designated technical, engineering, and management personnel who provide technical support to plant operations personnel during emergency conditions. Technical Support Center resources are used to provide guidance and technical assistance to the Control Room and supports the SED assigned Command and Control Functions. Technical Support Center facilitates reactor operator relief from peripheral duties and communications not directly related to reactor system operations. The Technical Support Center will be fully operational within approximately one hour after declaration.
3. The Technical Support Center is located on the 55 foot elevation with an Annex on the 58 foot elevation. It is contiguous with and has direct (door) access from the Control Room (can also be accessed from the Turbine Hall). Habitability duplicates Control Room for postulated accident conditions. Space available is considered adequate for personnel and equipment assigned (NRC Inspection Report dated 5/26/1982 EP Appraisal Combined Inspection Report Nos. 50-317/81-19 and 50-318/81-18). Radiological protection of personnel is afforded by radiation monitoring personnel.
4. The Plant Process Computers provide data gathering, trending, storage, and display to permit accurate accident assessment with minimum interference of Control Room operation:
   - Safety Parameter Display System provides continuous indication of plant parameters from which quick assessments of plant safety status can be made.
   - Plant Process Computer provides real time and historical displays and reports to assist in analysis of unit shutdown.

These systems have backup battery power supply to maintain continuity of Technical Support Center functions and immediately resume data acquisition, storage, and display if primary source loss occurs.

Parameters monitored in the Technical Support Center include NUREG 0737 Supplement 1 variables as modified by Calvert Cliffs Nuclear Power Plant's submittals to NRC.

5. The Technical Support Center contains or has access to complete and up-to-date plant records and procedures including:
   a. Drawings/Schematics
   b. Technical Specifications
   c. Operating Instructions/Abnormal Operating Procedures/Emergency Operating Procedures
   d. Final Safety Analysis Report
   e. Emergency Plan Implementation Procedures
6. Detailed emergency equipment listing is contained in Emergency Plan Implementation Procedures.

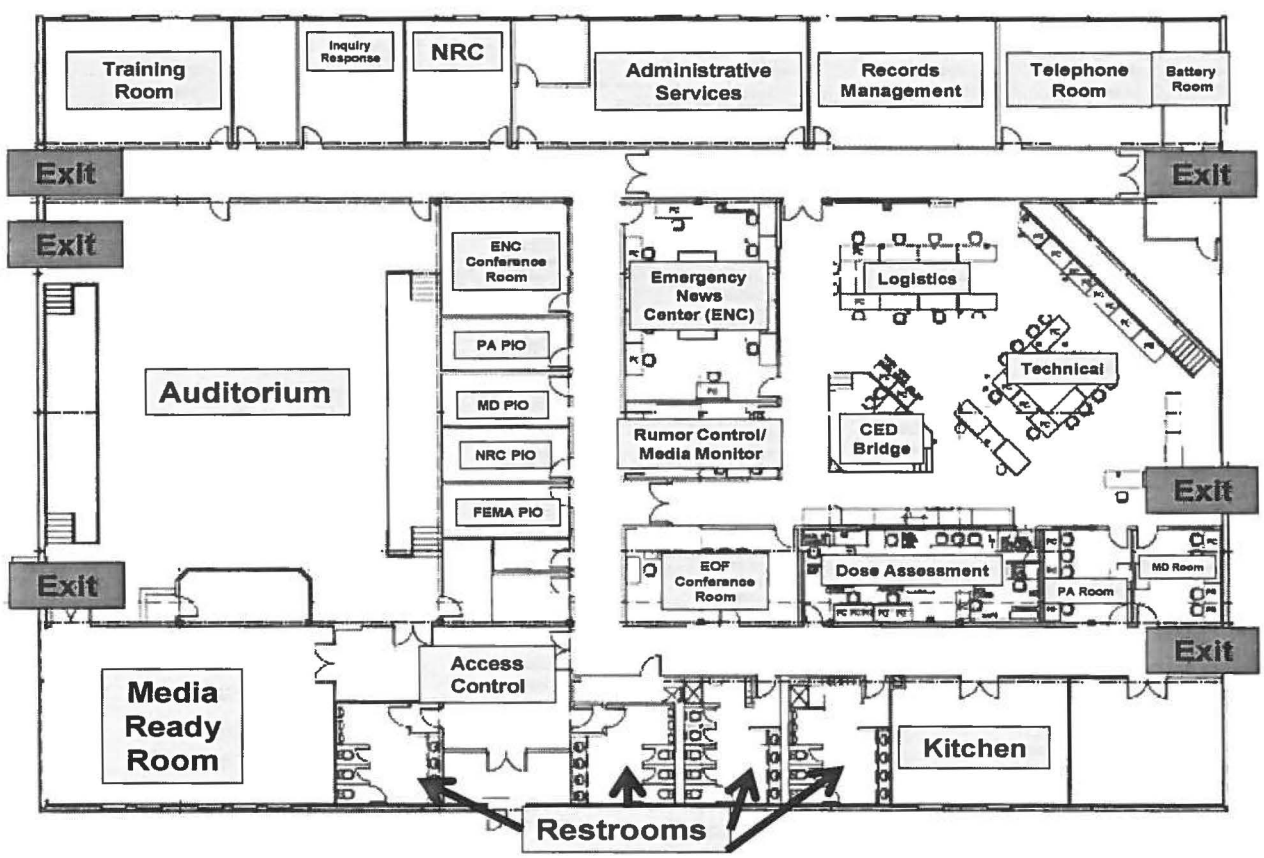
5.1.4 Operations Support Center

The Operations Support Center is located within the protected area (co-located with the Outage Control Center (OCC)) separate from Control Room and Technical Support Center. It provides space for the assembly of support personnel during an emergency. From this location in-plant support (e.g., operations and maintenance), required to bring the plant to a safe, stable condition is coordinated. In this way, access to the Control Room is restricted to personnel specifically requested by the Control Room. No specific habitability criteria are established. Detailed Operations Support Center emergency equipment listing is contained in Emergency Plan Implementation Procedures. Implementation Procedures include provisions for performing Operations Support Center functions by essential support people from a second (alternate) location.

5.1.5 Joint Information Center

1. The Joint Information Center location is shown in Figure 5-3, Emergency Operations Facility and Joint Information Center Location.
2. The Joint Information Center is located about 115 miles from the site, in Coatesville, Pennsylvania. It is a well- engineered structure for design life of the nuclear power plants it supports.
3. The Joint Information Center will be activated for a Site Area Emergency and General Emergency. In the first few hours of an emergency (while the Joint Information Center is being activated) Corporate Communications will provide an information clearing house from their current location. Should a crisis assume prolonged proportions after the center has been activated, Corporate Communications can provide additional personnel. The Joint Information Center, once activated, provides media representatives and public information officers immediate access to accurate emergency related information. The

Figure 5-2, Emergency Operations / Joint Information Center Facility



Appendix 6

Calvert Cliffs Communication Equipment

1. **Plant Page**

   A. Description:

   CCNPP is divided into six paging zones with an All Call and Priority Paging option.

2. **Administrative Telephone System** – Commercial phones system located at each of the ERFs that provide communications between facilities and outside agencies.

3. **Dedicated Offsite Agency Telephone**

   A. Description:

   1. Provides communications between CCNPP locations and offsite emergency facilities.
   2. Provides offsite agencies with the capability to independently dial other outside agencies and CCNPP or Emergency Operations Facility locations.
   3. Utilizes dedicated, leased telephone lines via CCNPP telephone system network.
   4. Battery-backed power supply provides for full system operability in the event of loss of AC power.
   5. Dedicated Offsite Agency phone located onsite is equipped with one or more standard outside telephone lines for access to Administrative Telephone System features (for example, plant page) and routine outside system dialing.

   B. The dedicated Offsite Agency Telephones are located in the Control Room, EOF, Safe Shutdown Panels.

4. **FTS-2001 Telephone System**

   The FTS 2001 Telephone System provides CCNPP and onsite NRC personnel direct communications with NRC Operations Center using dedicated telephone systems. FTS-2001 provides separate phones for:

   - Emergency Notification System (ENS) - Initial Notification by CCNPP to NRC Operations Center (identified by the red label). (MCR, EOF, TSC)
   - Health Physics Network (HPN) - Initial Notification by CCNPP to NRC Operations Center (identified by the red label). (EOF, TSC, TSC Annex)
   - Reactor Safety Counterpart Link (RSCPL) - For discussions between onsite and offsite NRC representatives on plant and equipment conditions. (TSC, EOF)
   - Protective Measures Counterpart Link (PMCPL) - For internal NRC discussions on radiological releases, meteorological conditions, and the need for protective actions. (TSC, EOF)
   - Management Counterpart Link (MCL) - For internal discussions between

NRC Executive Team Director and NRC Director of Site Operations. (TSC, EOF)

5. **Plain Old Telephone System (POTS)**

Plain Old Telephone System (POTS) phones provide backup communications for the Emergency Response Organization to utilize when needing to communicate information between CCNPP Emergency Response Facilities and to Offsite Agencies.

The POTS phones are located in the following locations:

1. Control Room
2. TSC
3. OSC
4. SAS

6. **Emergency Response Radio Network**

Description – **The Calvert Cliffs Radio system consists of a** CCNPP-owned 800 MHz radio system which provides communications between emergency centers. The system consists of Communication Control Units, Desk Set Control Units, Mobile Radios and Hand-Held Units.

The Radio system provides backup communications between CCNPP and offsite agencies, as well as communication between CCNPP radiological monitoring teams and emergency centers, Security, NPO/First Aid/Fire Brigade and Control Room. The Radio system does NOT provide communications to radiological monitoring teams from the Emergency Operations Facility (EOF). Satellite Radios and Cell Phones are used to communicate with the radiological monitoring teams from the EOF.

Radio Units are located in the following locations:

- Central Alarm Station
- Secondary Alarm Station
- Control Room (CRS desk)
- Operational Support Center
- Technical Support Center
- Technical Support Center Annex
- Farm Demo Building
- Nuclear Office Facility
- Secondary Fire Brigade Locker (B.5.b Equipment)
- Mobile radios are maintained in several vehicles assigned to CCNPP.

7. **LNG (Cove Point) Automatic Ringdown Telephone**

   A. Description:

      1. Cove Point owned/operated commercial dedicated phone line.
      2. A dedicated line between the Cove Point LNG Monitoring Station and the CCNPP Control Room. This line is to be used by Cove Point personnel to notify CCNPP of expected tanker arrivals and emergency situations concerning the LNG operations.

   B. Location:

      1. CCNPP Control Room
      2. Cove Point LNG Monitoring Station

8. **LNG (Cove Point) Emergency Radio**

   A. Description:

      Provides back-up communications for the dedicated phone between CCNPP Control Room and Cove Point LNG Plant Monitoring Station via the Control Room console and LNG Plant hand-held radio.

   B. Location:

      1. Cove Point LNG Plant Monitoring Station (hand-held radio)
      2. CCNPP Control Room (communications console programmed with dedicated talk-group LNG Plant hand-held radio)

Enclosure 4

License Amendment Request

Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

Offsite Response Agency Letters of Concurrence

Exelon Letter to Calvert County Board of County Commissioners
Calvert County Board of County Commissioners Response

Exelon Letter to Maryland Emergency Management Agency
Maryland Emergency Management Agency Response

Exelon Letter to Maryland Department of the Environment
Maryland Department of the Environment Response

Exelon Letter to Dorchester County, Department of Emergency Services
Dorchester County Department of Emergency Services Response

Letter from Commissioners of St. Mary's County

Exelon Letter to St. Mary's County, Department of Emergency Services and Technology
St. Mary's County Department of Emergency Services and Technology Response

Exelon Letter to Maryland Department of Natural Resources
Maryland Department of Natural Resources Response

Exelon Letter of Agreement with the College of Southern Maryland

---

Electronic Mail Message from Commonwealth of Pennsylvania

Exelon Generation

August 30, 2017

Mr. Thomas C. Hejl
President
Calvert County Board of County Commissioners

Dear Mr. Hejl:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; therefore consolidation will enhance our ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is extremely unlikely.

Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Paula Amos at (410) 495-5216.

Sincerely,

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.

10-3-17

Thomas C. Hejl
President, Calvert County Board of
County Commissioners

Date

Exelon Generation

August 30, 2017

Mr. Russel Strickland
Executive Director
Maryland Emergency Management Agency

Dear Mr. Strickland:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; therefore consolidation will enhance our ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is extremely unlikely.

Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Paula Amos at (410) 495-5216.

Sincerely,

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.

Russell Strickland — 9/12/2017

Russel Strickland
Executive Director
Maryland Emergency Management Agency

Date

Exelon Generation

August 30, 2017

Mr. Geoffrey L. Donohue, M.B.A.
Director, Emergency Preparedness & Planning
Maryland Department of the Environment

Dear Mr. Donohue:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; therefore consolidation will enhance our ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is extremely unlikely.

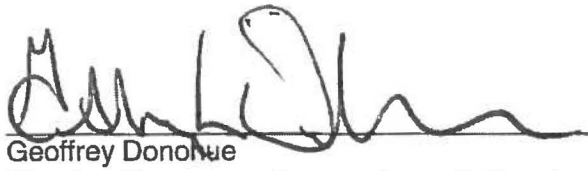
Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Paula Amos at (410) 495-5216.

Sincerely,

Mark D Flaherty

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.



9/8/17

Geoffrey Donohue — Date
Director, Emergency Preparedness & Planning
Maryland Department of the Environment

Exelon Generation

August 30, 2017

Ms. Anna Sierra
Director, Department of Emergency Services
Dorchester County, MD

Dear Ms. Sierra:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; therefore consolidation will enhance our ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

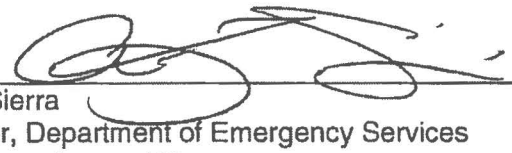
The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is extremely unlikely.

Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Paula Amos at (410) 495-5216.

Sincerely,

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.



9/7/17

Anna Sierra
Director, Department of Emergency Services
Dorchester County, MD

Date

ST. MARY'S COUNTY GOVERNMENT

COMMISSIONERS OF ST. MARY'S COUNTY

James R. Guy, President
Michael L. Hewitt, Commissioner
Tom Jarboe, Commissioner
Todd B. Morgan, Commissioner
John E. O'Connor, Commissioner

October 3, 2017

Mark Flaherty
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657
Site Vice President
Calvert Cliffs Nuclear Power Plant

Dear Mr. Flaherty:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) has presented a plan to consolidate the existing Barstow, Maryland Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania.

St. Mary's County has reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and supports this effort.

James R. Guy, 10/04/17
Commissioner President Date

CSMC/sf
T:Consent2017/206

cc: Dr. Rebecca Bridgett
Bob Kelly, CIO

Exelon Generation

August 30, 2017

Mr. Robert Kelly, CIO
St Mary's County
Department of Emergency Services and Technology

Dear Mr. Kelly:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; therefore consolidation will enhance our ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is extremely unlikely.

Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Paula Amos at (410) 495-5216.

Sincerely,

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.

10-5-17

Robert Kelly
St Mary's County
Department of Emergency Services and Technology

Date

Exelon Generation

October 18, 2017

Mrs. Susan T. Gray
Deputy Director, Power Plant Assessment Division
Department of Natural Resources

Dear Mrs. Gray:

To enhance Emergency Preparedness at Calvert Cliffs Nuclear Power Plant, Exelon Generation Company, LLC (Exelon) plans to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania. Presently, the Coatesville location is used by Exelon's Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station for Emergency Response Purposes.

Prior to seeking approval from the Nuclear Regulatory Commission (NRC), Exelon is requesting written concurrence from your agency regarding the common EOF/JIC concept. The Coatesville location is an equivalent facility to the existing Calvert Cliffs Nuclear Power Plant EOF/JIC. The facilities in Coatesville have state-of-the-art technology, including the ability to monitor multiple stations and reactors at one time and the ability to conduct video teleconferences/press conferences with media and county/state stakeholders. Due to the proximity of Coatesville to the Kennett Square Offices, Limerick Generating Station, Peach Bottom Atomic Power Station and the Three Mile Island Nuclear Generation Station, Exelon has a large population of technical expertise available to staff the existing emergency facility; consolidation will not adversely affect the ability to be staffed in a timely manner.

The Coatesville EOF facility will be staffed with fleet technical experts who can apply lessons learned at other stations and have access to state-of-the-art equipment and the ability to monitor station operations and plant activity. This staffing will provide additional resources to the station and improve the overall effectiveness of the Calvert Cliffs Nuclear Power Plant emergency response capability by increasing the number of station personnel available to staff the onsite emergency response facilities.

The Coatesville JIC will be staffed with senior company employees experienced in and authorized for media interface and response. This will allow for more timely news and updates to the community. Media will continue to have access to respond to the site visitors' center parking lot area, unless a Site Area Emergency is declared, which is unlikely.

Your continued support of the Exelon Emergency Preparedness program is greatly appreciated. If you have questions on this proposal, then please call Rick Woods at (410) 495-3866 or Janna Jackson at (410) 495-5221.

Sincerely,

Mark Flaherty,
Site Vice President
Calvert Cliffs Nuclear Power Plant

I have reviewed Exelon Generation Company's proposal to consolidate the Calvert Cliffs Emergency Operations Facility (EOF) and Joint Information Center (JIC) with the EOF/JIC located in Coatesville, Pennsylvania and concur with the information as described above.

Susan T. Gray — 01/08/2018

Susan T. Gray
Deputy Director, Power Plant Assessment Division
Department of Natural Resources

Date

Exelon Generation

Paula D. Amos
Manager Emergency Preparedness

Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657

410 495 5216 Office
www.exeloncorp.com

paula.amos@exeloncorp.com

July 16, 2018

College of Southern Maryland
ATTN: Dr. Maureen Murphy, President
P. O. Box 910
LaPlata, MD 20646

Calvert Cliffs Nuclear Power Plant, LLC ("CCNPP") requests permission to use certain portions of the Prince Frederick Building - B ("PFB") and parking areas at the College of Southern Maryland ("CSM") Prince Frederick campus (the "Campus") for purposes of establishing a secondary emergency response facility/staging area and an Alternative Emergency Response Facility (Alt. ERF) to be used in the unlikely event of a hostile action-based event, a Beyond Design Basis External Event ("BDBEE"), or other significant event that prevents safe access to the Calvert Cliffs Nuclear Power Plant site ("Plant Site") or requires the establishment of a near site facility reporting location for the Nuclear Regulatory Commission ("NRC") or offsite agencies. In either event, it is not expected that CCNPP will require use of CSM's facilities for longer than one week.

Specifically, CCNPP requests permission and access to use:

1. The PFB multi-purpose room for establishing an Alt. ERF.
2. The PFB NET labs as a staging area for personnel.
3. The PFB conference room for CCNPP executives for planning, briefing, and communications.
4. The northeast parking lot for a helicopter landing area and all parking lots adjacent to PFB for CCNPP personnel parking.
5. Storage closet space to store written procedures, laptop computers, sign-in boards and other materials for set-up of the Alt. ERF.
6. Phones, phone lines, and bathroom facilities.
7. Use of 2nd Floor Classroom 221 for Offsite agencies.
8. Use of Room 112 for the NRC.

In addition, CCNPP requests permission to access the PFB and install dedicated phone lines, internet, and computer data access lines in the multi-purpose room. It is understood that the PFB conference room and telecom room are served by a backup generator owned and operated by CSM. Use of CCNPP portable satellite phones by authorized CSM personnel in the event of an emergency at CSM is acceptable provided CSM notifies CCNPP Emergency Preparedness staff within two business days following use.

Permission for access and use of these facilities is requested: 1) for initial and periodic drills, 2) for NRC, Offsite agencies, contractor, and CCNPP personnel set-up access for establishing dedicated phone lines, internet, and computer data access lines in the PFB multi-purpose room,

and 3) in the unlikely event that a hostile action-based event, a BDBEE or other significant event prevents safe access to the Plant Site. Regarding Items 1) and 2) above, CCNPP will coordinate with CSM to establish dates and times for set-up access and conduct of drills so as not to interfere with normal use of the building and grounds. However, in the unlikely event of a hostile action-based event, BDBEE or other significant event at the Plant, access to and use of these facilities will be required within 30 minutes of notification to CSM. CCNPP personnel will restrict PFB multi-purpose room access to badged CCNPP employees, NRC, Offsite agency, contractors, and authorized CSM personnel. Helicopter landings will not be permitted during drills without the prior consent of CSM, but such consent is not required for helicopter landings during a hostile action-based event or a BDBEE.

The initial term of this agreement shall be for sixty (60) calendar months, commencing on execution of this agreement by all parties. This agreement shall automatically renew for additional terms of 60 months each at the conclusion of the initial and renewal terms, unless written notice is given by CSM or CCNPP to the other at least 90 days before the end of the then current term.

CCNPP will not be required to deposit a security deposit with CSM during the term of this agreement. CCNPP agrees to reimburse CSM for any actual expenses incurred in connection with CCNPP's use of CSM facilities, including (1) any space rentals lost due to CCNPP's actual use of CSM facilities under this agreement, and (2) the reasonable cost of repairing any damage to the Campus caused by CCNPP's use of CSM facilities under this agreement. CCNPP will pay all applicable telephone usage charges, internet access charges, and cleaning services attributable to CCNPP's use of CSM facilities.

If this agreement is acceptable, please sign and return this document at your earliest convenience. We appreciate the assistance that this arrangement provides. Should you have questions regarding this matter, please contact me at (410) 495-5216.

Respectfully,

Paula D Amos

Paula D. Amos
Manager Emergency Preparedness

Approval:

Dr. Maureen Murphy, President
College of Southern Maryland

Date: 8/15/18

Paula D. Amos
Paula D. Amos
Manager Emergency Preparedness

Date: 07.19.18

From: Janati, Rich [mailto:rjanati@pa.gov]
Sent: Friday, July 20, 2018 1:33 PM
To: Stoy, Shauna R:(GenCo-Nuc) <Shauna.Stoy@exeloncorp.com>
Subject: [EXTERNAL] RE: Calvert Cliffs EOF Relocation to Coatesville

Shauna,

Thanks for the heads up on this and yes, Vince informed me of this initiative.

I don't anticipate that we would raise any issues or concerns. I was told this would not have any impact on the BRP?PEMA cell at the EOF as it relates to the existing equipment, phones, etc.

Rich Janati, M.S. | Chief, Division of Nuclear Safety
Department of Environmental Protection
Executive Director, Appalachian Compact Commission
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.787.2163 | Fax: 717.783.8965
www.depweb.state.pa.us

From: Stoy, Shauna R:(GenCo-Nuc) [mailto:Shauna.Stoy@exeloncorp.com]
Sent: Friday, July 20, 2018 1:17 PM
To: Janati, Rich <rjanati@pa.gov>
Cc: Schmidt, Sara M:(GenCo-Nuc) <Sara.Schmidt@exeloncorp.com>; Alexakos, Nicholas P:(GenCo-Nuc) <nicholas.alexakos@exeloncorp.com>; Kaminski, Marino C:(GenCo-Nuc) <marino.kaminski@exeloncorp.com>
Subject: Calvert Cliffs EOF Relocation to Coatesville

Good Afternoon Rich,

I understand that you are aware that Exelon is working on an initiative to relocate the Calvert Cliffs Nuclear Power Plant Emergency Operations Facility to our EOF in Coatesville, PA. I'm sure Vince has spoken with you on this and I understand it has been a topic discussed at the PA Utilities meetings. As an update, we are working on final preparations to submit our License Amendment Request for the relocation to the NRC. I just wanted to be certain you were made aware prior to submittal.

As always, please do not hesitate to reach out if you have any questions.

Thanks so much and have a great weekend!

Shauna Stoy
Sr. Emergency Preparedness Specialist
Exelon
200 Exelon Way | Kennett Square, PA 19348
Office: 610-765-7241 | Cell: 570-974-6504
Shauna.Stoy@exeloncorp.com | www.exeloncorp.com

Enclosure 5

License Amendment Request

Emergency Operations Facility (EOF) and Joint Information Center (JIC) Relocation and Consolidation

Summary of Commitments

Summary of Commitments

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED ACTION OR "OUTAGE"	COMMITMENT TYPE	
		One-Time Action (Yes/No)	Programmatic (Yes/No)
Exelon will conduct a confirmation Emergency Preparedness two-site simultaneous drill involving CCNPP and one of Exelon's stations located in Pennsylvania (LGS or PBAPS) to demonstrate that there is no loss in EP functions or capabilities resulting from the proposed changes. The drill will include participation from each affected site's TSC, OSC, Simulator or Control Cell. The NRC and affected offsite emergency response organizations (e.g., State and Local agencies) will be invited to observe and/or participate in this drill, as deemed necessary. The drill will include the following specific criteria: • CCNPP will have an event affecting both units. • CCNPP will escalate the event on one unit. • One CCNPP unit will progress to a General Emergency. • One Pennsylvania unit will have an event which will ultimately escalate to a General Emergency.	Prior to implementation of approved license amendment.	Yes	No
The Emergency Management Network (EMNet) system will be installed for CCNPP prior to implementation of the proposed EOF relocation and consolidation. The EMNet system is the primary notification system used at the Coatesville EOF. This system will be installed for CCNPP prior to implementation of the proposed EOF relocation and consolidation.	Prior to implementation of approved license amendment.	No	Yes