

10 CFR 50.90
10 CFR 50.54(q)

JAF-18-0086
NMP1L3235

August 31, 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

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

James A. FitzPatrick Nuclear Power Plant Independent Spent Fuel
Storage Installation
General License SFGL-12
Docket No. 72-012

Nine Mile Point Nuclear Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-63 and NPF-69
NRC Docket Nos. 50-220, 50-410, and 72-1036

Subject: License Amendment Request for Approval of Changes to Emergency Plan
Staffing Requirements

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) requests amendments to licenses for the facilities listed above.

10 CFR 50.47(b) and 10 CFR 50, Appendix E establish emergency planning standards that require: 1) adequate staffing, 2) satisfactory performance of key functional areas and critical tasks, and 3) timely augmentation of the response capability.

Exelon is requesting U.S. Nuclear Regulatory Commission (NRC) approval of proposed changes to the Radiological Emergency Preparedness Plans for the facilities listed above. The Independent Spent Fuel Storage Installations (ISFSIs) are also referenced for the sites since the Emergency Plans cover emergency planning aspects for the ISFSIs. The proposed changes would revise certain Emergency Response Organization (ERO) positions for facilities listed with the minimum staff ERO guidance specified in the "Alternative Guidance for Licensee Emergency Response Organizations," finalized in a letter from the NRC to NEI, June 12, 2018. The guidance will be included in Revision 2 of NUREG-0654/FEMA-REP-1, "*Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.*"

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, "*Emergency plans,*" paragraph (b), 10 CFR 50 Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities,*" and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, "*Conditions of licenses,*" paragraph (q), "*Emergency plans,*" determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92, "*Issuance of amendments.*"

The proposed changes have been reviewed by the Plant Operations Review Committees at each site in accordance with the requirements of the Exelon Quality Assurance Program.

The following enclosures, along with supporting attachments, are provided which contain an evaluation of the proposed changes, including a detailed description, technical and regulatory evaluations including a no significant hazards consideration, and environmental consideration for each facility.

- Enclosure 1 – Calvert Cliffs Nuclear Power Plant, Units 1 and 2 – Evaluation of Proposed Changes
 - Attachment 1A - Emergency Plan Marked-up Pages
 - Attachment 1B - Emergency Plan Clean Copy Pages
 - Attachment 1C - Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed
- Enclosure 2 – Nine Mile Point Nuclear Station, Units 1 and 2 – Evaluation of Proposed Changes
 - Attachment 2A - Emergency Plan Marked-up pages
 - Attachment 2B - Emergency Plan Clean Copy pages
 - Attachment 2C - Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

- Enclosure 3 – James A. FitzPatrick Nuclear Power Plant – Evaluation of Proposed Changes
 - Attachment 3A - Emergency Plan Marked-up Pages
 - Attachment 3B - Emergency Plan Clean Copy Pages
 - Attachment 3C - Assessment of James A. FitzPatrick ERO Minimum Staff Positions Removed
- Enclosure 4 - Summary of Commitments
- Enclosure 5 - Information Related to Review of Proposed Changes by the States

This amendment request includes a regulatory commitment as described in Enclosure 4 of this submittal. Exelon plans to conduct a confirmation Emergency Preparedness Drill at one of Exelon's stations to demonstrate that no loss of function will result due to the proposed changes in the ERO.

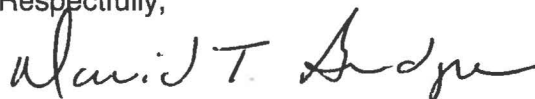
Exelon is requesting approval of the proposed license amendments by September 1, 2019. Once approved, Exelon is requesting that the amendments for the affected facilities be implemented no later than December 31, 2019.

In accordance with 10 CFR 50.91, "*Notice for public comment; State consultation,*" paragraph (b), Exelon is notifying the State of Maryland and the State of New York of this application for these license amendments by transmitting a copy of this letter and the supporting attachments to the designated State Officials.

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 31st day of August 2018.

Respectfully,



David T. Gudger
Manager, Licensing and Regulatory Affairs
Exelon Generation Company, LLC

Enclosures (including supporting attachments):

- 1) Calvert Cliffs Nuclear Power Plant, Units 1 and 2 – Evaluation of Proposed Changes
- 2) Nine Mile Point Nuclear Station, Units 1 and 2 – Evaluation of Proposed Changes
- 3) James A. FitzPatrick Nuclear Power Plant – Evaluation of Proposed Changes
- 4) Summary of Regulatory Commitments
- 5) Information Related to Review of Proposed Changes by the States

U.S. Nuclear Regulatory Commission
License Amendment Request
Changes to Emergency Plan Staffing
Docket Nos. 50-317, 50-318, 72-8, 50-333,
72-012, 50-220, 50-410, and 72-1036
August 31, 2018
Page 4

cc: w/ Enclosures (including supporting attachments)
Regional Administrator - NRC Region I
NRC Senior Resident Inspector - Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector - Nine Mile Point Nuclear Station
NRC Senior Resident Inspector - James A. FitzPatrick Nuclear Power Plant
NRC Project Manager, NRR - Calvert Cliffs Nuclear Power Plant
NRC Project Manager, NRR - Nine Mile Point Nuclear Station
NRC Project Manager, NRR - James A. FitzPatrick Nuclear Power Plant
T. A. Tancabel - State of Maryland
A. L. Peterson - NYSERDA

ENCLOSURE 1

Calvert Cliffs Nuclear Power Plant – Evaluation of Proposed Changes

Attachments:

- Attachment 1A - Emergency Plan Marked-up Pages
- Attachment 1B - Emergency Plan Clean Copy Pages
- Attachment 1C - Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Enclosure 1

License Amendment Request

**Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53, DPR-69 and SNM-2505
NRC Docket Nos. 50-317 and 50-318
Materials License No. SNM-2505
NRC Docket No. 72-8**

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request for Approval of Changes to Emergency Plan Staffing Requirements

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 Applicable Regulatory Requirements/Criteria
 - 4.2 Precedent
 - 4.3 No Significant Hazards Consideration
 - 4.4 Conclusions
- 5.0 ENVIRONMENTAL CONSIDERATION
- 6.0 REFERENCES

Supporting Attachments

Attachment 1A - Emergency Plan Marked-up Pages
Attachment 1B - Emergency Plan Clean Copy Pages
Attachment 1C - Assessment of ERO Minimum Staff and Full Augmented Staff Positions
Removed

1.0 SUMMARY DESCRIPTION

10 CFR 50.47(b) and 10 CFR 50, Appendix E establish emergency planning standards that require: 1) adequate staffing; 2) satisfactory performance of key functional areas and critical tasks; and 3) timely augmentation of the response capability.

Exelon Generation Company, LLC (Exelon) is requesting NRC approval of a proposed revision to the Calvert Cliffs Nuclear Power Plant (Calvert Cliffs) Radiological Emergency Preparedness Plan. The proposed changes would revise certain Emergency Response Organization (ERO) positions in the Calvert Cliffs Emergency Plan. Specifically, the proposed changes would revise certain ERO positions to align with the Alternative Guidance for Licensee Emergency Response Organizations (Alternative Guidance) finalized in a letter from the NRC to NEI, June 12, 2018. The guidance will be included in Revision 2 of NUREG-0654/FEMA-REP-1, "*Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*" (referred to NUREG-0654 hereafter) when published.

The proposed changes will also relocate the identified Full Augmentation ERO specified in the Calvert Cliffs Nuclear Power Plant Emergency Plan Annex EP-AA-1011, Figure 2-2, "*Emergency Response Organization*" to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, "*Emergency plans*," paragraph (b), 10 CFR 50 Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities*," and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, "*Conditions of licenses*," paragraph (q), "*Emergency plans*," determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

As specified in Enclosure 4 of this submittal, Exelon has committed to conduct a confirmation Emergency Preparedness (EP) Drill at one of the Exelon stations with the proposed minimum staff personnel to demonstrate that sufficient staffing capabilities will remain and no loss of EP function will result due to the proposed changes in the ERO staffing.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

2.1.1 The content and format of the Calvert Cliffs Emergency Plan Annex EP-AA-1011, Figure 2-1, "*Minimum On-Site Staffing Requirements*," will be revised to align with the NRC's Alternative Guidance. This includes revisions to the EP Functions and Major Tasks, as well as the Minimum Staff assigned to these areas. The proposed changes will result in a change in some designated Minimum Staff responders and the relocation of the Full Augmentation staff from the Emergency Plan to Calvert Cliffs EPIPs, consistent with the NRC's Alternative Guidance.

The specific wording changes are provided in Attachments 1A and 1B of this enclosure as marked-up and clean copy Emergency Plan pages, respectively. Attachment 1C

contains a task assessment of the Minimum Staff and Full-Augmented Staff removed from the Calvert Cliffs Emergency Plan. Enclosure 5 of the License Amendment Request contains information related to the review of the proposed changes by the State of Maryland.

2.1.2 On-Shift ERO Revision Summary

The Calvert Cliffs on-shift staff will align with the NRC's Alternative Guidance. The proposed changes to align the Calvert Cliffs Emergency Plan Annex EP-AA-1011, Figure 2-1 with the NRC's Alternative Guidance for the on-shift ERO are described as follows:

- The designated number of Fire Brigade personnel will be removed and the Table will be annotated stating the Function will be controlled per the Fire Protection Plan (FPP).
- The First Aid and Rescue EP Function is removed from the Table, consistent with the NRC's Alternative Guidance.
- The total number of on-shift RP Technicians will remain at two (2); however, the assignment to specific EP Functions and Major Tasks is revised to align with the NRC's Alternative Guidance.
- The designated collateral function of Rad Waste Operator will be removed from the Table, consistent with the NRC's Alternative Guidance.

The table below identifies the current and proposed Calvert Cliffs on-shift ERO staffing positions for each EP Function identified in the NRC's Alternative Guidance.

An on-shift analysis utilizing the guidance and methodology in NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," concluded that the proposed changes do not result in conflicting duties for on-shift ERO personnel.

EP Function (based on the NRC's Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Command and Control	(1) Shift Manager	(1) Shift Emergency Director
Communications	(1) Shift Communicator	(1) Shift Communicator
Radiation Protection	(2) RP Technician	(2) RP Personnel

EP Function (based on the NRC's Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Supervision of RP	-	(1) Shift Emergency Director
Dose Assessment Projections	-	(1) Shift Dose Assessor (Collateral duty)
Emergency Classifications	-	(1) Emergency Classification Advisor (Collateral Duty)
Engineering	(1) Shift Technical Advisor (STA) (Collateral Duty)	(1) STA (Collateral Duty)
Security	Per the Security Plan	Per the Security Plan
Repair Team Activities	(1) Radwaste Operator (Collateral Duty)	N/A
Fire Fighting/Fire Brigade	(5) Persons	N/A
First Aid / Rescue Operations	(2) Plant Personnel (Collateral Duty of Fire Brigade)	N/A
Radiation Accident Assessment (Chemistry/Radio Chemistry)	(1) Chemistry Technician	N/A

2.1.3 Minimum Staffing

The Calvert Cliffs Minimum Staff ERO is revised to be consistent with the finalized staffing numbers found in the NRC's Alternative Guidance with some exceptions that include:

- No Technical Support Center (TSC) Dose Assessor. This is deemed to be acceptable because the Calvert Cliffs Emergency Operations Facility (EOF) is activated at a lower classification level than required by the NUREG-0654 guidance for escalating events. The TSC Dose Assessor is not considered necessary because the Calvert Cliffs EOF will activate at 60 minutes of an Alert or higher Emergency Classification Level (ECL) and will include an EOF Dose Assessment Coordinator as Minimum Staff.
- The on-site Field Monitoring Team will not include a driver. Due to the configuration and size of the site within and around the Protected Area (PA) and

the limited available roads in that area, a vehicle would not be needed to traverse the site.

- The EOF Information Technology (IT) Lead (Computer Specialist) is proposed to be staffed within 90 minutes of an Alert rather than 60 minutes of a Site Area Emergency.
- The TSC does not have an IT Lead staffed at 90 minutes.
- The EOF will not staff an additional NRC Communicator at a Site Area Emergency

The following ERO positions will be added to the Calvert Cliffs Emergency Plan as Minimum Staff consistent with the NRC's Alternative Guidance:

- TSC Security Coordinator
- EOF Dose Assessment Coordinator
- EOF Computer Specialist (staffed at 90 minutes from an Alert)
- JIC Public Information Director
- OSC Electrical Maintenance Supervisor / Lead
- OSC I&C Maintenance Supervisor / Lead

The following ERO support positions will no longer be considered Minimum Staff under the Calvert Cliffs Emergency Plan and will be designated as Full-Augmented Staff. The Full-Augmented ERO Staff will be managed under an EPIP consistent with the NRC's Alternative Guidance.

- TSC Director
- TSC Radiation Monitoring System (RMS) Communicator
- EOF Director
- EOF Technical Advisor
- OSC Chemistry Personnel
- Assistant OSC Director
- JIC Media Monitor/Rumor Control Coordinator
- JIC Logistics Manager
- JIC Technical Advisor

The following positions will be reduced in number consistent with the finalized staffing numbers found in the NRC's Alternative Guidance.

- Core Thermal/Hydraulic Engineer – reduction of one (1) position
- Mechanical Maintenance Technician – reduction of two (2) positions
- Electrical Maintenance Technician – reduction of one (1) position
- I&C Technician – reduction of one (1) position
- RP Personnel – reduction of one (1) position

Additional changes include:

- Three (3) RP Personnel will be changed from 60-minute responders to 90-minute responders consistent with the NRC's Alternative Guidance.

The Calvert Cliffs minimum ERO staff positions are being revised as follows:

Current Minimum Staff Positions	Proposed Minimum Staff Positions (response times are 60 minutes unless otherwise noted)
Technical Support Center (TSC)	
Station Emergency Director	No Change
Operations Manager (as defined in EIPs)	Operations Manager (Emergency Classification Advisor)
ENS Communicator	No Change
Rad Protection Manager	No Change
Core Thermal/Hydraulic Engineer (2)	Core Thermal/Hydraulic Engineer (1)
Mechanical Engineer	No Change
Electrical Engineer	No Change
N/A	Added Security Coordinator
TSC Director (as defined in EIPs)	Maintained in EIP as Full Augmentation
RMS Communicator (as defined in EIPs)	Maintained in EIP as Full Augmentation
Emergency Operations Facility (EOF)	
Corporate Emergency Director	No Change
State / Local Communicator	No Change
Radiation Protection Manager	No Change
N/A	Added Dose Assessment Coordinator
N/A	Added EOF Computer Specialist @ 90 min
EOF Director (as defined in EIPs)	Maintained in EIP as Full Augmentation
Technical Advisor (as defined in EIPs)	Maintained in EIP as Full Augmentation
Joint Information Center (JIC)	
Company Spokesperson	Corporate Spokesperson (@ 90 min.)
JIC Manager	JIC Director (@ 90 Min)
N/A	Added Public Information Director (@ 90 min.)
Media Monitor / Rumor Control Coord	Relocated to EIP as Full Augmentation
Logistics Manager JIC	Relocated to EIP as Full Augmentation
Technical Advisor JIC	Relocated to EIP as Full Augmentation
Operations Support Center (OSC)	
OSC Director	No Change
Offsite Field Team #1 Personnel	No Change
Offsite Field Team #1 Driver	No Change
Offsite Field Team #2 Personnel	Offsite Field Team Personnel (@ 90 min.)
Offsite Field Team #2 Driver	Offsite Field Team Driver (@ 90 min.)
Onsite Field Team member #1 (onsite surveys)	Onsite Field Team member #1 (onsite surveys)

Current Minimum Staff Positions	Proposed Minimum Staff Positions (response times are 60 minutes unless otherwise noted)
Onsite Field Team member #2 (onsite surveys)	Deleted
RP Tech #1 (In-plant surveys)	RP Tech #1
RP Tech #2 (In-plant surveys)	RP Tech #2
RP Personnel #1 (In-Plant Protective Actions)	RP Tech #3
RP Personnel #2 (In-Plant Protective Actions)	RP Tech #4 (@ 90 min.)
RP Personnel #3 (In-Plant Protective Actions)	RP Tech #5 (@ 90 min.)
RP Personnel #4 (In-Plant Protective Actions)	RP Tech #6 (@ 90 min.)
I&C Maintenance #1	No Change
I&C Maintenance #2	Deleted
Electrical Maintenance #1	No Change
Electrical Maintenance #2	Deleted
Mechanical Maintenance #1	No Change
Mechanical Maintenance #2	Deleted
Mechanical Maintenance #3	Deleted
Mechanical Maintenance Group Lead	Mech. Maint. Supv/Lead(@90 min.)
RP Group Lead	Rad Protection Supv/Lead (@90 min.)
Chemistry Personnel	Relocated to EPIP as Full Augmentation
Assistant OSC Director	Relocated to EPIP as Full Augmentation
N/A	Added Elec. Maint. Supv/Lead (@90 min.)
N/A	Added I&C Supv/Lead (@90 min.)

2.1.4 Full-Augmented Staff

The Calvert Cliffs Full-Augmented Staff will be described in the station EIPs. The Calvert Cliffs Full-Augmented Staff will continue to be notified to respond at an Alert or higher ECL at the same time as the Minimum Staff personnel; however, the Full Augmentation ERO response is not required to activate the Emergency Response Facility (ERF).

Position	Disposition
Technical Support Center (TSC)	
Technical Manager	Position relocated to EPIP
Maintenance Manager	Position relocated to EPIP
Operations Communicator	Position relocated to EPIP
Operations Communicator (MCR)	Position relocated to EPIP
Security Coordinator	Position reclassified as Min Staff
Admin Staff	Position relocated to EPIP
TSC/OSC Computer Specialist	Position relocated to EPIP
Emergency Operations Facility (EOF)	
Logistics Manager	Position relocated to EPIP
Environmental Coordinator	Position relocated to EPIP
HPN Communicator	Position relocated to EPIP
EOC Communicator	Position relocated to EPIP
Dose Assessor (2)	Position relocated to EPIP
EOF Ops Communicator	Position relocated to EPIP
EOF/JIC Computer Specialist	Position reclassified as Min Staff
County Liaison (3)	Position relocated to EPIP
State Liaison	Position relocated to EPIP
EOF Admin Staff	Position relocated to EPIP
Joint Information Center (JIC)	
Media Liaison	Position relocated to EPIP
News Writer	Position relocated to EPIP
Inquiry Phone Team	Position relocated to EPIP
Media Monitoring Team	Position relocated to EPIP
JIC Admin Staff	Position relocated to EPIP
JIC Security (Access Control)	Position relocated to EPIP
Operations Support Center (OSC)	
OSC Admin Staff	Position relocated to EPIP
OSC Team Tracker	Position relocated to EPIP
OSC Ops Communicator	Position relocated to EPIP
Elec Group Lead	Position reclassified as Min Staff
Instrument Group Lead	Position reclassified as Min Staff
Chem Group Lead	Position relocated to EPIP
Ops Group Lead	Position relocated to EPIP

2.2 Reason for the Proposed Changes

The Calvert Cliffs Emergency Plan is being revised to align with the recently issued Alternative Guidance. The revision to the NUREG-0654 guidance reflects changes to NRC regulations, guidance, and policies, as well as advances in technology and best

practices that have occurred since the NUREG-0654 guidance was originally issued in November 1980.

2.3 Calvert Cliffs Emergency Plan Background

The site for the Calvert Cliffs Nuclear Power Plant consists of approximately 2070 acres on the western shore of the Chesapeake Bay, in Calvert County, about 10-1/2 miles southeast of Prince Frederick, Maryland. The nearest population center is Washington, DC, which is approximately 45 miles to the northwest of the site. Unit 1 went into commercial service in 1975 and Unit 2 in 1977.

The Calvert Cliffs Emergency Preparedness Plan consists of the Exelon Nuclear Standardized Radiological Emergency Plan (EP-AA-1000) and a Station Emergency Plan Annex (EP-AA-1011). Additionally, the program provides direction and guidance through EIPs, and associated program administrative documents. The Emergency Plan outlines the basis for response actions that would be implemented in an emergency. Planning efforts common to all Exelon nuclear stations are encompassed within the Exelon Standardized Emergency Plan. The Standardized Emergency Plan establishes the concepts, evaluation and assessment criteria, and protective actions that are necessary to limit and mitigate the consequences of potential or actual radiological emergencies.

The Calvert Cliffs Annex generally contains information and guidance that is unique to the station. The Annex and associated Addendums address site-specific criteria including:

- ERO Staffing
- Emergency Action Levels (EALs) located in Addendum 3 to the station Annex.
- Differences from the Standardized Emergency Plan (such as station-specific staffing commitments, unique aspects of ERO augmentation, etc.).
- Facility geography and location for a full understanding and representation of the station's emergency response capabilities.
- Plant specific facilities and equipment associated with the Emergency Preparedness Program.

- 2.3.1 Calvert Cliffs Nuclear Power Plant Site Emergency Plan, Rev 0, April 14, 1972 – The Calvert Cliffs original Emergency Response Organization (ERO) described the On-Site and the Off-Site Emergency Organization. The On-Site Emergency Response Organization was made up of Plant Personnel, while the Off-Site organization was located in Batimore, Md, and consisted of headquarters personnel.
- 2.3.2 Calvert Cliffs Nuclear Power Plant Emergency Response Plan. On November 13, 1980, licensees were notified that the site EP would be reviewed in accordance with 50.47(b), Appendix E, and NUREG-6454IFEMA-REP-I. Revision 1. On May 11, 1983, the NRC reviewed the Calvert Cliffs Emergency Response Plan and concluded that the onsite and offsite emergency preparedness is adequate, and the Emergency Plan has been

upgraded in accordance with NUREG-0737, Item II.A.2.1, "Emergency Plan Upgrade to Meet the Requirements of Appendix E of 10 CFR Part 50. During 1986-1987 Calvert Cliffs revised the format of Attachment 3-2, Minimum On-Site Staffing Requirements as part of their Emergency Plan to align with NUREG 0654, Revision 1, Table B-1. The Attachment 3-2 described both on-shift and 60-minute responders for each Major Functional Area and Major Task.

- 2.3.3 Calvert Cliffs Nuclear Power Plant Emergency Response Plan, Revision 46, In February 2014, the Calvert Cliffs Emergency Plan was revised to implement a standard fleet Emergency Response Organization for Calvert Cliffs, Nine Mile Point, and Ginna stations under Constellation Energy. This entailed changes to position titles, changes to assigned tasks, and changes to implementing procedures to establish a mostly common ERO.
- 2.3.3 Exelon Nuclear Standardized Radiological Emergency Plan, Revision 26 – In April 2015, Calvert Cliffs Emergency Plan was incorporated into the Exelon Fleet Standardized Emergency Plan under EP-AA-1000. This entailed changes to position titles, and changes to implementing procedures in an effort to establish a mostly common ERO throughout the Exelon Fleet.
- 2.4 Minimum Staffing and Full Augmentation as discussed in Calvert Cliffs Nuclear Power Plant's Emergency Plan

The Calvert Cliffs Emergency Plan designates two (2) types of augmented ERO responders. Those designated as Minimum Staff are those additional ERO personnel needed to relieve the on-shift staff of key EP functions/tasks required in response to the emergency. Those key functions and associated tasks are identified in NUREG-0654, Section II.B. Evaluation Criteria 5 of Section II.B of NUREG-0654, Revision 1, states in part:

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

Those ERO positions designated as Minimum Staffing in the Calvert Cliffs Emergency Plan are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO positions that are the absolute minimum needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher ECL.

... "Facility Activation" refers to the decision to consider a facility fully operational based on the minimum staffing required in ERO staffing tables contained within the station specific Annex and the ability of facility staffing and equipment to perform its designed function(s).

The positions which are considered Full-Augmented Staff (i.e., Non-Minimum Staff) are those positions which provide support for the Minimum Staff in their response to the emergency. The Full-Augmented staff are discussed in EP-AA-1011, as well as the Calvert Cliffs EIPs.

As described in the Calvert Cliffs Emergency Plan, these Full Augmentation positions consist of liaisons, coordinators, supervisors, and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the Functions/Tasks identified in the NRC's Alternative Guidance. The list of Full-Augmented positions and their current assigned tasks are listed in Attachment 1C.

2.5 EOF Activation as discussed in the Calvert Cliffs Nuclear Power Plant Emergency Plan

The NRC's Alternative Guidance establishes that the EOF facility activate within 60 minutes of a Site Area Emergency (SAE) or greater ECL. Exelon has elected to activate the EOF within 60 minutes of an Alert or greater ECL. By establishing the EOF at the Alert level, certain EP functions such as Dose Assessment or State/local communications can be established immediately following the Alert classification at the EOF and need not be duplicated at the TSC.

The turnover of Command and Control of EP functions will occur through a conference line between the Main Control Room (MCR), TSC, and EOF and may occur simultaneously if all facilities are available. In this manner, there will be no delay in transferring functions such as Emergency Action Level (EAL) classifications, State/local Notifications, Protective Action Recommendations (PARs), and Emergency Exposure Control from the MCR to the respective ERF (i.e., TSC or EOF).

2.6 ERO Performance Validation

As part of the implementation of these changes, a confirmation of the capabilities of the final Minimum Staff personnel will be performed through an EP drill to demonstrate that no loss of function will result due to the changes in the ERO. Additionally, the NRC will be invited to observe the drill.

In support of this effort, and as documented in Enclosure 4 of this submittal, Exelon makes the following commitment:

Exelon will conduct a confirmation Emergency Preparedness Drill at one of the Exelon Stations to demonstrate that no loss of EP function will result due to the proposed changes in the ERO. The drill will include each of the Emergency Response Facilities described in the Emergency Plan (i.e., MCR, TSC, OSC, EOF and JIC).

This commitment shall be completed prior to the implementation of the approved license amendment.

In addition, Exelon will institute a "Minimum Staff" drill to be conducted once per drill cycle. The drill will include participation from the Minimum Staff of the Emergency Operations Facility (EOF), the Joint Information Center (JIC), the Technical Support Center (TSC), and the Operations Support Center (OSC) from one of the affected Exelon stations which have implemented the approved ERO staffing change license amendment. This will allow Exelon to periodically demonstrate that the Standardized Emergency Plan continues to effectively implement the required Emergency Preparedness functions utilizing only the Minimum Staff defined in the Emergency Plan. Since the ERO Minimum Staff is the same for each station under the Exelon Standardized Emergency Plan, it is not necessary to perform the drill for each station in a drill cycle. The stations would select one station to demonstrate the effectiveness of the minimum staff ERO. Credit for the "Minimum Staff" drill will be given to all of the affected stations. The drill will be evaluated in accordance with Exelon's Drill and Exercise Program; however, the drill may or may not be evaluated for DEP performance in accordance with NEI 99-02, "Regulatory Assessment Performance Indicator Guideline."

2.7 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, "*License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation*," states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

...an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an emergency planning function.

In conjunction with this License Amendment Request, Calvert Cliffs performed an OSA per 10 CFR 50, Appendix E, Section IV.A.9. The results are used to support the conclusions made in this License Amendment Request for on-shift staffing; however, Exelon understands that the OSA comprises a select set of identified scenarios and should not be used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Support

The following section discusses technical changes in plant systems, procedures, EP equipment/programs and training, which have been completed to better support ERO functions, ease Operator burden and improve Augmented Staff efficiency. The following discussion describes the improvements implemented since the last revision of the NUREG-0654 staffing guidance.

3.1.1 Plant Process Computer

The Plant Process Computer (PPC) system provides for the Safety Parameter Display System (SPDS) functions discussed below as well as data collection and processing, accounting, alarming and logging functions. An auxiliary function of the PPC is to transmit plant data to remote locations, including the TSC and the EOF.

The PPC and the SPDS provide a concise display of critical plant variables to the Main Control Room (MCR) personnel to aid them in rapidly and reliably determining the safety status of the plant. The PPC and SPDS are operated during normal plant operations, as well as during abnormal and emergency conditions. The principal purpose and function is to aid the MCR personnel during abnormal and emergency conditions in determining the safety status of the plant.

Parameters displayed by the PPC and SPDS are the quantitative and qualitative measures to indicate the accomplishment or maintenance of critical safety functions. Information needed to assess the status of the plant safety parameters is obtained by the measurement of key plant variables. The safety parameters utilized to assess the maintenance or accomplishment of the critical safety functions as required by NUREG-0737, Supplement 1, "Clarification of TMI Action Plan Requirements: Requirements for Emergency Response Capability," Section 4 are:

1. Reactivity control
2. Reactor core cooling and heat removal
3. Reactor coolant system integrity
4. Containment conditions
5. Radiation control

In general, the ranges of parameters monitored by the PPC and SPDS are identical to those ranges monitored by existing MCR instrumentation. Ranges displayed by the PPC/SPDS are adequate to cover plant responses analyzed in Updated Final Safety Analysis Report (UFSAR) Chapter 14, "Accident Analysis."

Benefits of the current level of computer capabilities include:

- Improved plant monitoring capability for emergency functions.

- Real-time plant data available through graphical displays.
- PPC PI functions available to any desktop computer through the plant's Emergency Response Facilities.
- Programming capability for automated response such as indication of critical parameter alarms.
- Easier interface when switching between graphical displays.

The PPC system replaced multiple older and obsolete systems with a single, microcomputer-based operating platform incorporating the PPC and the SPDS as well as the following:

- Process Computer System
- Meteorological Data Acquisition System
- Sequence of Events Recorder (SER)
- Radiation monitoring

By consolidating all of these systems onto a single platform, ERO personnel can quickly monitor all critical plant parameters from a single workstation. The following are some of the benefits of the PPC:

- The Emergency Director has improved plant monitoring capability to support Emergency Director (ED) function.
- Workstations have the capability of being programmed for automated response (such as automatically indicating a critical parameter during events that may challenge that parameter).
- Data manipulation functions, such as plotting information graphically or recovering historical data, require fewer key strokes and are more easily performed.
- The SER function has become a "real-time" user tool by making data immediately available rather than only being available via printer after the event.
- Much of the PPC functionality can be made available to any desktop computer through the plant's site-wide intranet.
- The increased capabilities of the PPC have enhanced timeliness of monitoring and assessing plant conditions.

Calvert Cliffs also utilizes a Digital Plant Viewer (DPV) system that permits personnel to view conditions in the plant where cameras are installed in real time prior to entry. The DPV also allows personnel to access real-time dose rate data in areas with installed Area Radiation Monitors (ARM). No RP Technician support is required to use DPV.

In aggregate, these improvements support the proposed change in ERO staffing by ensuring that major functions and tasks are completed more easily with less burdens on the MCR staff.

3.1.2 Dose Assessment

Radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. At the time of the startup of Unit 1, procedures describing methods for manually calculating offsite doses were provided.

The methods incorporated constants which simplified and sped up calculations. Soon after, a computer-based method for Dose Assessment was implemented. The system was a PC-based computer dose model and provided a means for immediate dose assessment.

In 2014, Unified Rascal Interface (URI), a Visual Basic.net program was implemented at the station. URI is a more efficient program utilizing menus and toolbars with the majority of inputs on a single screen making the program more user friendly. The plant display systems have improved over the years allowing access to more data points that are needed within dose assessment. Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. Calvert Cliffs has an individual plant data screen dedicated to the needs of dose assessment inputs.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computing power of modern computer processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Automated Call-Out Systems

Enhancements in automated call-out and paging systems have resulted in streamlined processes for activation of the ERO. The ERO activation can occur through a Web based or phone based system to initiate rapid notification of ERO members in lieu of individual calls to fill the individual ERO positions included in the current Emergency Plan for Calvert Cliffs. The system includes a primary activation system as well as back-up capability to ensure uninterrupted operation.

3.1.4 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since the original Emergency Plan approval, EOPs have been improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the operators. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the PPC. The PPC system is capable of graphically displaying plant conditions to assist in EOP execution.

Abnormal Operating Procedures (AOPs) also contain directional steps for when a review of the classification procedure is required to determine potential classifiable conditions. This prompts the user to identify applicable EALs.

b. Emergency Action Levels (EALs)

In 2013, Calvert Cliffs updated the EAL classification methodology to that published in NEI 99-01, Revision 5, "*Methodology for Development of Emergency Action Levels.*" The Calvert Cliffs EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.5 Training

a. Operations Training

Training is used to strategically drive improved performance at Calvert Cliffs. Since NRC approval of the Calvert Cliffs Emergency Plan, the Systematic Approach to Training (SAT) has resulted in developing a task list for Operations personnel. The SAT process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

A dynamic simulator is routinely used during Operations training. "As found" simulator evaluations that include emergency response scenarios are part of the requalification segment. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During the simulator evaluated sessions the MCR staff is taken from normal operations to accident conditions which require evaluation against Emergency Action Levels and may result in the declaration up to a General Emergency (GE). The Operations crew performs critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the MCR staff to perform these functions while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification Training (LORT) Program includes licensed Operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, "*Operations Department Guidance for Conducting Crew Performance Evaluations.*"

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the additional challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in the crew performance evaluations. Representing the event

as realistically as possible, which includes the additional challenges of Emergency Plan responsibilities, helps promote the situational awareness necessary during a real event.

b. Shift Technical Advisor (STA) Training

The STA was originally trained as an advisor to the operating shift per NUREG-0737, "*Clarification of TMI Action Plan Requirements.*" In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, "*Guidelines for the Training and Qualification of the Shift Technical Advisor.*"

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. They also contribute to operations during normal plant conditions. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident.

3.1.6 Radiation Protection Improvements

There have been many improvements in RP since the Calvert Cliffs staffing was established under NUREG-0654, Revision 1 guidance.

The following provides a summation of the technology/tools associated with the in-plant protective actions:

a. Access Control

- Access to the Radiologically Controlled Area (RCA) is controlled electronically. The electronic access control system provides for the user to electronically sign Radiation Work Permits (RWPs) to self-authorize themselves to access the RCA and self-issuance of an electronic dosimeter (in addition to the assigned Dosimetry of Legal Record (DLR) that is always worn). Access to the RCA is controlled electronically without interface with a RP Technician.

b. Personnel monitoring

- Personnel are issued DLRs that are continuously worn for constant monitoring. No RP Technician support is needed for issuance of DLRs to on-shift emergency workers.
- Secondary dosimeters are issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.

- Automated whole-body monitors provide contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RP Technician interface.
- In circumstances when the automated whole-body monitors are not available, hand held friskers are used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RP Technician interface.

c. Dosimetry

- Personnel are issued DLRs that are continuously worn for constant monitoring.
- Secondary dosimeters are self-issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.
- If a DLR is lost or damaged under emergency conditions, additional DLRs are staged for emergency issuance.
- If an electronic dosimeter is lost or damaged, additional electronic dosimeters are available.

d. Area Radiation Monitors (ARMs) are also used and reviewed prior to dispatch of personnel into the plant. Calvert Cliffs has multiple ARMs throughout the plant.

Some RP Technician support functions associated with in-plant protective actions such as access control, personnel monitoring, dose assessment, and dosimetry now require less dedicated support time since they are covered by plant process enhancements (newer technology/tools).

These technology/tools use available equipment such as portal monitors, self-alarming dosimeters, and an automated access control point.

All onsite ERO members expected to be dispatched into the plant for evaluation, operations, or repair activities are Radiation Worker qualified and are trained on how to use the available tools.

3.1.7 Improvements Summary

The improvements to staffing, equipment, procedures, and training that have occurred since initial approval of the Calvert Cliffs Emergency Plan have resulted in a significant increase in the on-shift capabilities and knowledge. Based on these improvements, it is concluded that there would be no significant degradation or loss of any functional task as a result of the proposed changes in ERO staffing.

3.2 Functional Analysis

This analysis evaluates the impact of implementing the changes in staffing on the ERO ability to perform the major tasks for the major functional areas of the Calvert Cliffs Emergency Plan. The analysis demonstrates that no degradation or loss of function would occur as a result of the change.

3.2.1 EP Function: Command and Control (formerly Emergency Direction and Control) The Command and Control function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide overall ERO command and control, until relieved.
- Approve EAL classifications and/ or Protective Action Recommendations (PARs), until relieved.
- Authorize personnel dose extensions, until relieved

This function is important for effective emergency response because adequate Command and Control enables the Calvert Cliffs ERO to effectively develop priorities for response planning and corrective action(s) and to provide a unified approach to the event response by providing a single individual with overall command and control authority. The function is staffed and maintained at all times and is assigned to the Operations Shift Manager (SM). The augmentation (relief) of this position is intended to relieve the SM of EP functions so that the SM can focus on the event response from an operations perspective. This is available within 60 minutes of an Alert ECL declaration, or greater, and is a position staffed by the TSC Station ED. In addition, the EOF Corporate ED will take responsibility for those EP functions associated with PARs following activation of the EOF, also at the Alert or greater ECL.

- a. On-Shift Staff – The table below identifies the current, proposed, and NRC's Alternative Guidance for this EP Function and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Command and Control – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) Shift Manager 	<ul style="list-style-type: none"> • Shift Emergency Director 	<ul style="list-style-type: none"> • Operations Shift Manager

Emergency Plan Change Assessment

The Calvert Cliffs existing on-shift staffing table currently aligns with the NRC's Alternative Guidance.

NRC’s Alternative Guidance Alignment

Calvert Cliffs will maintain the existing position for this EP Function. The Operations Shift Manager will be titled Shift Emergency Director at Calvert Cliffs.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function. Note that Calvert Cliffs TSC Station Emergency Director was listed under the Major Functional Area of “Support of operational accident assessment” on Calvert Cliffs EP-AA-1011, Figure 2-1.

EP Function: Command and Control – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC Station Emergency Director • (1) EOF Corporate Emergency Director 	<ul style="list-style-type: none"> • (1) TSC Station Emergency Director • (1) EOF Corporate Emergency Director 	<ul style="list-style-type: none"> • (1) TSC Emergency Coordinator (at Alert or higher) • (1) EOF Emergency Director (at SAE or higher)

The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. There is one difference between the Calvert Cliffs proposed Minimum Staff and the NRC’s Alternative Guidance. Specifically, Calvert Cliffs will staff the EOF Corporate ED within 60 minutes of an Alert or higher ECL, while the NUREG-0654 guidance staffs the position within 60 minutes of a SAE or higher ECL. This difference expands the Calvert Cliffs emergency response at the Alert ECL and will ensure that the EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE ECL. Calvert Cliffs will maintain their existing title for this EP Function.

3.2.2 EP Function: Communications

The Communications function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Communicate EAL classifications and PARs to Offsite Response Organizations (OROs), including the NRC, until relieved.

This function is important for effective emergency response. The function ensures adequate communication onsite and offsite to successfully implement the emergency plan. Calvert Cliffs maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty and has been assessed through an on-shift staffing analysis, via 10 CFR 50, Appendix E, Section IV.A.9, to ensure that this EP Function can be performed when needed without any additional competing priorities.

The augmentation of this position is available within 60 minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function consists of two (2) ERO members to fulfill the communications needs (i.e., one (1) for the NRC and one (1) for State/local notification and status updates). Under the Calvert Cliffs Emergency Plan, additional Communicators can be called upon as needed, and at the discretion of the ED.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (1) Shift Communicator 	<ul style="list-style-type: none"> (1) Shift Communicator 	<ul style="list-style-type: none"> (1) Communicator¹ <p>¹ Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

There are no changes between the current Calvert Cliffs Station Emergency Plan staffing and the proposed changes to the Emergency Plan for the On-shift Communications function.

NRC’s Alternative Guidance Alignment

Calvert Cliffs will keep the Shift Communication function consistent with the NRC’s Alternative Guidance. The Shift Communicator will perform NRC and State/local communications as needed until relieved.

A difference identified related to the Calvert Cliffs implementation of the NRC’s Alternative Guidance is the absence of the note (1) regarding collateral duties. The notes states: *"Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time,"* and is not included in the Calvert Cliffs Emergency Plan. This note is not necessary because no collateral duties are assigned to the on-shift Communicator under the Calvert Cliffs Emergency Plan.

There are no other deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – Minimum Staff		
Current Emergency Plan, Calvert Cliffs Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local communicator • (1) TSC RMS Communicator • (1) TSC Director • (1) EOF Director 	<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local Communicator <p>(additional Communicators will be staffed as needed)</p>	<ul style="list-style-type: none"> • (1) TSC Communicator (NRC) • (1) TSC Communicator (ORO) • (1) EOF Communicator @ SAE ECL or greater <p>As needed (one communicator staffed at TSC for NRC communications if needed)</p>

Emergency Plan Change Assessment

Calvert Cliffs is maintaining the Minimum Staff TSC ENS and EOF State/local Communicator as currently described in the Calvert Cliffs Emergency Plan with no proposed changes to those positions. Additional Communicators will be staffed at the EOF or TSC as needed.

The following positions, identified as minimum staff under the current Calvert Cliffs EIPs, are being re-categorized as Full-Augmented staff and will continue to be managed within an EIP.

TSC RMS Communicator - The Radiation Monitoring System (RMS) Communicator is identified as Minimum Staff in the Calvert Cliffs EIPs, but is not listed on EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements. The TSC RMS Communicator is reclassified as Full Augmentation. The RMS Communicator under the current EIPs is tasked to monitor and record radiation data at 15-minute intervals and to save the data to a Sharepoint site available to the Calvert Cliffs Emergency Response Facilities. This is a support position for the ERO and not a critical task; radiation monitor data is available to the ERO via computer interface.

TSC Director – The TSC Director is identified as Minimum Staff in the Calvert Cliffs EIPs, but is not listed on EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements. The TSC Director is reclassified as Full Augmentation. Under the Calvert Cliffs EIPs, the TSC Director responsibilities do not directly perform actions

necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position, as currently defined in the EIPs, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The TSC Director performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific responsibilities include:

- *Activate the Facility (responsibility retained in the Emergency Plan and transferred to Station Emergency Director)*
- *Establish and maintain facility accountability.*
- *Manage the operation of the facility.*
- *Review and ensure facility displays are maintained current.*
- *Coordinate ERO shift relief rosters for the on-site facilities.*
- *Develop ERO shift relief rosters for the facility.*
- *Coordinate integration of the NRC Site Team.*
- *Arrange for logistics support.*
- *Ensure flow of information within and between the emergency response facilities.*
- *Provide input for facility briefs.*
- *Coordinate TSC relocation.*
- *Direct ENS Communications with the NRC.*

Each of these tasks above are considered support activities (excepted as noted) and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the TSC Director position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The TSC Director position and the listed responsibilities are being relocated to an EPIP.

EOF Director – The EOF Director is identified as Minimum Staff in the Calvert Cliffs EIPs but is not listed on EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements. The EOF Director is reclassified as Full Augmentation. Under the Calvert Cliffs Emergency Plan, the EOF Director responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the EOF. The position, as currently described in the Calvert Cliffs Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The EOF Director performs support activities such as coordination, assessment, monitoring, and assistance activities. Specific responsibilities include:

- *Direct and coordinate the activation and response efforts of the EOF staff. (responsibility retained in the Emergency Plan and transferred to Corporate Emergency Director)*
- *Prepare State/Local notification forms and obtain Corporate ED approval to support the completion of timely offsite event notifications*
- *Participate in the Inter-Facility briefing to communicate and obtain event and response information.*
- *Provide input for facility briefs.*

Each of these other tasks above are considered support activities (except as noted) and are not required to directly accomplish any of the NRC's Alternative Guidance identified functions. As such, the EOF Director position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The EOF Director position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

Calvert Cliffs will maintain the ENS (NRC) Communicator and State/local (ORO) Communicators consistent with the NRC's Alternative Guidance; however, the reporting location differs. Specifically, the function is maintained with one (1) ENS Communicator staffed at the TSC within 60 minutes to perform NRC communications and one (1) State/local Communicator at the EOF within 60 minutes to perform the State/local notifications with the OROs.

The NRC's Alternative Guidance designates the minimum staff ORO communication (State/local) is located at the TSC. For Calvert Cliffs, the State/local Communicator is located in the EOF. This is considered acceptable because the Calvert Cliffs EOF is activated at the Alert or higher ECL. By establishing the EOF at the Alert level, the function would be available at the same time as if it were located in the TSC.

Additionally, the NRC's Alternative Guidance, identified an EOF NRC communicator to be staffed within 60 minutes of an SAE or higher ECL. Exelon proposes to credit the TSC ENS communicator to provide information to the NRC in conjunction with the commitment to staff additional communicators as needed.

3.2.3 EP Function: Radiation Protection (formerly Radiological Accident Assessment / Protective Actions (in plant) operational aspects)

The RP function includes the following tasks as defined in NRC's Alternative Guidance:

- Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions.
- Provide in-plant surveys.
- Control dosimetry and radiologically controlled area access.

The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event. This function is staffed by two (2) qualified RP staff members on-shift. Under the proposed Calvert Cliffs ERO staffing and the NRC's Alternative Guidance, the augmentation (support) of this position occurs in two (2) stages: 1) within 60 minutes of an Alert ECL or greater, three (3) additional qualified RP staff are available; and 2) within 90 minutes of an Alert ECL, or greater, an additional three (3) qualified RP staff are available, and both are staffed in the OSC. The total number of qualified RP staff for the ERO is eight (8) considering the on-shift and augmented staff.

The "Technical Analysis in Support of the Guidance in NUREG-0654/FEMA-REP-1, SECTION II.B, Emergency Response Organization," for proposed Revision 2 states that: "based upon staff review and approval of ERO staffing plans, and the evaluation of licensee exercises, the [NRC] staff has determined that expecting 2 qualified RP staff on-shift is reasonable for the increased time period (30 minutes to 60 minutes), at which point additional RP resources would become available, and that 3 additional RP staff in 60 minutes and 3 additional RP staff in 90 minutes is acceptable to ensure the staff can maintain its reasonable assurance finding (10 CFR 50.47(a)). In addition, the [NRC] staff has determined that field monitoring teams (FMTs) (onsite and offsite) can function with limited RP expertise while under the direct supervision of senior RP staff in the TSC or EOF, thus removing the need for a fully qualified RP staff member being a part of the FMT when their expertise is better suited supporting the ERO on-site." The senior RP staff supervising the FMTs at Calvert Cliffs is responsible for directing the FMTs as well as providing direction for their safety from the radiological event.

In addition, the Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654, is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of plant indications of fuel damage available at Calvert Cliffs.

Overall, the ERO functions assigned to qualified RP staff are more clearly defined in Table B-1 to the NRC's Alternative Guidance and support the reduction of the overall staffing levels for qualified RP Personnel.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Radiation Protection – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) RP Technician (In Plant Surveys) • (1) RP Technician (Radiation Protection) • (1) Chemistry Technician 	<ul style="list-style-type: none"> • (2) Radiation Protection Personnel 	<ul style="list-style-type: none"> • (2) Radiation Protection Personnel

Emergency Plan Change Assessment

Calvert Cliffs currently maintains two (2) RP Technicians on-shift to satisfy the Emergency Plan requirements. Calvert Cliffs will maintain two (2) qualified RP staff members on-shift and the ERO Staffing Table is revised to show two (2) qualified RP staff members for this function.

The proposed revision also removes the Chemistry personnel from Figure 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654, is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at Calvert Cliffs. Early indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR.

An on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Chemistry major task is not required per Calvert Cliffs procedures prior to augmentation. The OSA indicates that the primary responsibility of the on-shift Chemistry Technician is chemistry/radiochemistry sampling to identify fuel damage; however, no chemistry sampling tasks were noted as being time critical in any of the analyzed events.

NRC’s Alternative Guidance Alignment

The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance. Calvert Cliffs will maintain two (2) RP personnel on-shift to perform the RP functions and tasks for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access. There are no differences or deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Radiation Protection – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (2) RP Technicians (In-Plant Surveys) • (4) RP Technicians (Radiation Protection) • (1) Chemistry Technician 	<ul style="list-style-type: none"> • (3) Additional RP Personnel @ 60 minutes (OSC) • (3) Additional RP Personnel @ 90 minutes (OSC) 	<ul style="list-style-type: none"> • Additional Radiation Protection Technicians @ 60 minutes (In addition to personnel on-shift) (3) (OSC) • Additional Radiation Protection Technicians @ 90 minutes (In addition to personnel on-shift and those responding within 60 min) (3) (OSC)

Emergency Plan Change Assessment

Currently, Calvert Cliffs designates six (6) Minimum Staff RP Personnel as required to support the EP Major Tasks of In-Plant Surveys and Radiation Protection at 60 minutes. Calvert Cliffs proposes to maintain six (6) Minimum Staff RP Personnel; however, consistent with the NRC’s Alternative Guidance, three (3) of those RP Personnel will respond within 90 minutes. Note that for the purposes of this table, RP Personnel consists of persons with an ANSI qualification. This includes RP Technicians or qualified RP Staff members. This is consistent with the guidance provided in the NRC’s Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization”.

Technological advances in RP tasks (i.e., protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access) support the additional time proposed in the NRC’s Alternative Guidance for the three (3) RPTs. This includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions supporting RWPs and dosimetry issuance, and enhanced work processes that are available under accident conditions. Supporting tools and processes include portal monitors, self-alarming dosimeters, and the automated access control system for the RCA that maintain active RWPs (e.g., the system verifies qualifications, dose margins, and access requirements).

The proposed revision also removes the one (1) Minimum Staff Chemistry Technician from Figure 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654 is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at Calvert Cliffs. Early

indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR. If reactor sampling is desired, Chemistry Technicians are on staff at Calvert Cliffs and would be called in as necessary to support the event.

NUREG-0654, Revision 2 Alignment

Calvert Cliffs will staff three (3) additional RP Personnel at 60 minutes and three (3) more RP Personnel at 90 minutes in the OSC, consistent with the NRC's Alternative Guidance. The augmented staff will perform the RP functions for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access. There are no differences or deviations from the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.4 EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection

Supervision of RP staff and Site RP Functions include the following tasks as defined in the NRC's Alternative Guidance:

- Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved.
- Recommend onsite protective actions and offsite PARs to the applicable decision-maker, until relieved.
- Direct all radiation protection activities, including Field Monitoring Team (FMT) direction, until relieved.
- Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved.

This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the ED, is crucial for response to radiological events.

Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective PARs, requires this expertise to support the ED in making these decisions.

This position is also responsible for the direction and protection of FMTs.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC. Also, for Calvert Cliffs, at the Alert ECL, or greater, an EOF RP Manager position is staffed. Note that this position is primarily tasked with providing the applicable command and control position (i.e., Corporate ED) relevant expertise on radiological events. This will increase the Calvert Cliffs emergency response at the Alert ECL and will ensure EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE.

- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Shift Emergency Director 	<ul style="list-style-type: none"> Operations Shift Manager

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan does not specifically identify this Function on-shift under Figure 2-1. To align with the NRC’s Alternative Guidance, the Function is being added and assigned to the Shift ED. The tasks identified above align with current responsibilities for the Shift ED. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the major tasks under this Function identified above can be performed when needed without any additional competing priorities.

NRC’s Alternative Guidance Alignment

Calvert Cliffs will utilize the Shift ED on-shift to perform the *“Supervision of Radiation Protection Staff”* function until relieved by the Augmented Staff. There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC Radiation Protection Manager • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) TSC Radiation Protection Manager • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) TSC Site Radiation Protection Coordinator • (1) EOF Radiation Protection Manager @ SAE ECL or greater

Emergency Plan Change Assessment

Calvert Cliffs will staff both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL consistent with current Emergency Plan commitments. There are no changes proposed to the current Emergency Plan for this Function.

NRC’s Alternative Guidance Alignment

The TSC RP Manager will perform site related duties which include actions to recommend onsite protective actions, to direct all radiation protection activities at the site, and to evaluate and assess plant radiological data in the development of onsite protective actions. The TSC RP Manager will also provide relevant information to applicable communicators who are communicating offsite PARs to OROs.

The EOF RP Manager will perform duties which include actions to support evaluation of offsite radiological data in the development of onsite protective actions and offsite PARs, and to direct FMTs at the Alert ECL, or greater.

Calvert Cliffs staffing of this Function is different than the NRC’s Alternative Guidance, in that Calvert Cliffs staffs both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL. The NRC’s Alternative Guidance does not staff the EOF RP Manager until the SAE declaration.

This will increase the Calvert Cliffs emergency response at the Alert ECL and will ensure that the EOF RP Manager will be immediately available should an Alert classification escalate to a SAE or GE ECL.

The proposed ERO staffing activates the EOF earlier than the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

3.2.5 EP Function: Dose Assessments/Projections

The Dose Assessments/ Projections function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Perform dose assessments/projections and provide input to applicable PAR decision-maker, until relieved.

This function is important for effective emergency response to a radiological event because timely dose assessments/projections ensure accurate and timely PARs can be developed, when necessary. Calvert Cliffs maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function can be performed when needed without any additional competing priorities.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the EOF.

Maintaining the ability to perform dose assessments/projections at all times ensures that the consequences of a radiological event, to the public, are effectively mitigated by providing timely dose related information to the Station ED (TSC) or Corporate ED (EOF) depending on which position is in command and control. As a result, this position (Function) is expected to be available on-shift and in the EOF depending on the ECL declared.

- a. On-Shift Staff – The table below identifies the current and Calvert Cliffs Emergency Plan on-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – On-shift Staff		
Current EPIP Requirement	Proposed Emergency Plan Table	NRC’s Alternative Guidance
Shift Chemistry Technician	<ul style="list-style-type: none"> • Shift Dose Assessor ¹ ¹ Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.	<ul style="list-style-type: none"> • Dose Assessment / Projections Staff ¹ ¹ Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time

Emergency Plan Change Assessment

The Shift Dose Assessment Function is not specifically annotated as assigned to on-shift staff in Calvert Cliffs EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements; however, Calvert Cliff’s EIPs maintain this position at all times. Under the EIPs, Calvert Cliffs utilizes on-shift Chemistry Technician to perform the Dose Assessment Function prior to augmentation of the ERO. The Calvert Cliffs Emergency Plan will be revised to annotate the Dose Assessment Function as the collateral duty and annotated with note (1) *“Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.”* The use of the on-shift RP Technician to perform Dose Assessment is assessed through an on-shift staffing analysis, via 10 CFR 50, Appendix E, Section IV.A.9, to ensure that this EP Function can be performed when needed without any additional competing priorities.

NRC’s Alternative Guidance Alignment

Calvert Cliffs will maintain a Shift Dose Assessor on-shift to perform dose assessments/projections and provide input to applicable PAR decision-maker functions. This function is performed by available qualified personnel (e.g., the on-shift RP Technician). Additionally, an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Dose Assessment function on shift can be performed by one of the two (2) RP staff on shift without any additional competing priorities. The proposed ERO staffing for this Function is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) EOF Dose Assessment Coordinator 	<ul style="list-style-type: none"> • TSC (1) Dose Assessment/ Projection Staff • EOF (1) Dose Assessment / Projection Staff @ SAE or greater

Emergency Plan Change Assessment

Calvert Cliffs currently identifies the EOF Radiation Protection Manager for the Off-site Dose Assessment Function in EP-AA-1011, Figure 2-1. The proposed revision to the Calvert Cliffs Emergency Plan adds the position of EOF Dose Assessment Coordinator as a dedicated Minimum Staff position to perform off-site dose assessments. The Dose Assessment Coordinator will be activated within 60 minutes of an Alert ECL or greater. The Dose Assessment Coordinator will report to the EOF RPM.

NRC's Alternative Guidance Alignment

The Calvert Cliffs proposed ERO staffing for the Dose Assessment Function is different than that in the NRC's Alternative Guidance. Specifically, the NRC's Alternative Guidance provides for one (1) Dose Assessment position to be staffed at the TSC within 60 minutes of an Alert ECL or higher. A second Dose Assessor is staffed at the EOF within 60 minutes of an SAE ECL or higher. Calvert Cliffs proposes to staff one (1) EOF Dose Assessor at 60 minutes from an Alert ECL or higher.

The NRC's Alternative Guidance was developed based on the premise that the TSC is activated at the Alert ECL or higher and the EOF is activated at the SAE ECL or higher. While the Dose Assessment function falls more in line with the EOF responsibilities, it is not activated within the NRC's Alternative Guidance until a SAE ECL or higher. In order to provide early relief of the on-shift Dose Assessment function for Alert ECLs, the guidance provides a TSC Dose Assessor, which is available at the Alert ECL.

The Calvert Cliffs EOF is staffed within 60 minutes of an Alert ECL or higher, making it unnecessary to staff the redundant TSC Dose Assessor. The EOF Dose Assessor Coordinator will perform duties which include actions to perform dose assessments/projections and provide input to applicable PAR decision-maker at the Alert ECL, or greater.

3.2.6 EP Function: Emergency Classifications

The Emergency Classifications Function includes the following task as defined in the NRC's Alternative Guidance:

- Evaluate plant conditions and recommend emergency classifications, until relieved.

This function is important to ensure a prompt and effective emergency response. Because the impetus for implementing the Emergency Plan is the determination of an EAL at the correct ECL, having this ability maintained at all times is essential. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The

augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.

Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function works in coordination with the ED in command and control, and as a result is available on-shift and in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> None specified 	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The Calvert Cliffs Emergency Plan Figure 2-1 does not currently specify a separate Emergency Classification Function for the On-shift Staff. Calvert Cliffs proposes to revise Emergency Plan Figure 2-1 to align with the NRC’s Alternative Guidance. This function is assigned to a pre-existing on-shift staff member as a collateral duty (e.g., STA). The STA has the experience and training to fill this position and the responsibilities for monitoring plant operation are consistent with the EP position responsibilities. The STA is trained in EAL classification and is available in the MCR to evaluate plant conditions and recommend emergency classifications as described in the NRC’s Alternative Guidance.

The STA’s responsibilities are defined in Operations Procedure OP-AA-101-111, Roles and Responsibilities of On-Shift Personnel. The procedure states that the STA maintains a sufficient level of independence commensurate with station conditions to act as an advisor to the Shift Manager during abnormal and emergency

conditions. During abnormal and emergency conditions the procedure states that the STA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This assessment shall include monitoring critical parameters and challenges to radioactive release barriers. The STA is also responsible to perform an independent assessment of Emergency Plan classification (as time permits) and should not cause a delay in making the event classification within the required time limit.

This practice has been demonstrated and evaluated in the Operations Training Program and EP Drills and Exercises. Additionally, the STA's role as an Emergency Classification Advisor is assessed in the OSA under 10 CFR 50, Appendix E, Section IV.A.9.

NRC's Alternative Guidance Alignment

Calvert Cliffs will maintain an Emergency Classification Advisor on-shift to evaluate plant conditions and recommend emergency classifications. There are no differences or deviations from the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • None specified 	<ul style="list-style-type: none"> • TSC (1) Operations Manager (Emergency Classification Advisor) 	<ul style="list-style-type: none"> • TSC (1) Emergency Classification Advisor

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan does not specifically identify a Classification Advisor on Figure 2-1. Calvert Cliffs proposes to utilize the Operations Manager to support EAL Classification. Calvert Cliffs proposes to revise the Emergency Plan Figure 2-1 to include the Emergency Classification Function and assign the TSC Operations Manager to support and advise the non-delegable responsibility of EAL Classification. The Operations Manager under the Emergency Plan has the necessary background, experience and training to fill this position.

NRC's Alternative Guidance Alignment

Calvert Cliffs will staff a TSC Operations Manager at 60 minutes to evaluate plant conditions and recommend emergency classifications. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.7 EP Function: Engineering

The Engineering function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. Specifically:
 - An engineer to monitor and evaluate changing core/thermal hydraulic issues is important to effective emergency response because monitoring and evaluating core conditions, or thermal hydraulic conditions of the reactor coolant system, can support timely corrective action(s), ECL declarations, and subsequent PARs. Radiological events from a power reactor come from damage to an operating reactor core, or the systems used to cool the core, and engineering expertise in this area can greatly benefit the licensee's response.

This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The augmentation of this function is available within 60 minutes of an Alert ECL or greater, and is staffed in the TSC.

- An engineer to provide expertise in Electrical/ I&C systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60-minutes of an Alert ECL, or greater, and is staffed in the TSC.
- An engineer to provide expertise in mechanical systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.
- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Engineering – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • None specified 	<ul style="list-style-type: none"> • (1) STA Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time. 	<ul style="list-style-type: none"> • (1) Core/Thermal Hydraulics Engineer Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.

Emergency Plan Change Assessment

The Calvert Cliffs Emergency Plan Figure 2-1 does not currently specify a separate Engineering Function for the On-shift Staff. Calvert Cliffs proposes to revise Emergency Plan Figure 2-1 to align with the NRC’s Alternative Guidance. This function is assigned to a pre-existing on-shift staff member as a collateral duty (e.g., STA). The STA has the experience and training to fill this position and the responsibilities for monitoring plant operation are consistent with the EP position responsibilities.

The STA’s responsibilities are defined in Operations Procedure OP-AA-101-111, Roles and Responsibilities of On-Shift Personnel. The procedure states that the STA maintains a sufficient level of independence commensurate with station conditions to act as an advisor to the Shift Manager during abnormal and emergency conditions. During abnormal and emergency conditions the procedure states that the STA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This assessment shall include monitoring critical parameters and challenges to radioactive release barriers. This practice has been demonstrated and evaluated in the Operations Training Program and EP Drills and Exercises. Additionally, the STA’s role as an Emergency Classification Advisor is assessed in the OSA under 10 CFR 50, Appendix E, Section IV.A.9.

Under the NRC’s Alternative Guidance, the EP Engineering function is included as an on-shift function. The Calvert Cliffs Emergency Plan would be revised to identify the Engineering Function is a collateral duty satisfied by the STA on-shift.

NRC's Alternative Guidance Alignment

Calvert Cliffs will maintain STA on-shift to perform the Core/Thermal Hydraulics Engineer function as a collateral duty. There are no differences or deviations from the NRC's Alternative Guidance and the proposed changes to the Calvert Cliffs Emergency Plan.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Engineering – Minimum Staff		
Current Emergency Plan/EPIP Requirement	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (2) Core Thermal/Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical Engineer • (1) EOF Technical Advisor 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulics Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation & Controls Engineer 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation and Control (I&C) Engineer

Emergency Plan Change Assessment

The Calvert Cliffs Emergency Plan currently identifies a Minimum Staff of two (2) Core Thermal/Hydraulic Engineers, one (1) Mechanical Engineer and one (1) Electrical Engineer. A revision is proposed to delete one of the Core Thermal/Hydraulic Engineers consistent with the NRC's Alternative Guidance. The use of a computerized Core Damage Assessment program and the readily available data in the ERFs support the reduction of the Core Thermal/Hydraulic Engineer to one person. The remaining three Engineering positions (Core Thermal/Hydraulic, Mechanical, and Electrical) will continue as Minimum Staff in the proposed Calvert Cliffs Emergency Plan Table.

The following positions, currently identified as Minimum Staff under the Calvert Cliffs Emergency Plan, are being re-categorized as Full-Augmented Staff and managed within an EPIP.

EOF Technical Advisor – The EOF Technical Advisor is identified as Minimum Staff in the Calvert Cliffs EPIPs, but is not listed on EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements. The EOF Technical Advisor is reclassified as Full

Augmentation. Under the Calvert Cliffs Emergency Plan, the EOF Technical Advisor responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the TSC. The position, as currently defined in the Calvert Cliffs Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The EOF Technical Advisor performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- The EOF Technical Advisor provides technical expertise to the EOF Staff.
- The EOF Technical Advisor tasks are to:
 - Track and trend critical parameters for the identification and trending of current plant status information.
 - Monitor plant status and Control Room activities.
 - Provide input for facility briefs and updates.

Each of these tasks above are considered support activities and are not required to directly accomplish any of the NRC's Alternative Guidance identified functions. As such, the EOF Technical Advisor position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The EOF Technical Advisor position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

Calvert Cliffs will staff a Core Thermal/Hydraulic Engineer, a Mechanical Engineer, and an Electrical Engineer at 60 minutes to provide engineering coverage related to their specific discipline. The EOF Technical Advisor position is not identified in the NRC's Alternative Guidance. There are no differences or deviations from the NRC's Alternative Guidance. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.8 EP Function: Security

The Calvert Cliffs Security Force is controlled and maintained by the NRC-approved Physical Security Plan (PSP) and is not reflected in the Emergency Plan. However, the establishment of a Security position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed by Security personnel in the TSC to coordinate security-related activities with that of the ERO. The command and control staff of the TSC all respond within 60 minutes of an Alert ECL, or greater, to ensure that the ED has access to the resources and expertise of the site staff in order to develop response plans for a wide-spectrum of events.

- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Security – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> Per the Security Plan 	<ul style="list-style-type: none"> Security staffing per the site-specific security plan 	<ul style="list-style-type: none"> Security staffing per the site-specific security plan

Emergency Plan Change Assessment

There are no changes between the current Calvert Cliffs Emergency Plan staffing and the proposed changes to the Emergency Plan for the on-shift Security function.

NRC’s Alternative Guidance Alignment

There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Security – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> Per the Security Plan 	<ul style="list-style-type: none"> (1) TSC Security Coordinator 	<ul style="list-style-type: none"> (1) TSC Security Liaison

Emergency Plan Change Assessment

Calvert Cliffs is revising the Emergency Plan to re-categorize the Full Augmentation TSC Security Coordinator position as Minimum Staff. The addition of Minimum Staff position ensures timely and effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability.

NRC's Alternative Guidance Alignment

Calvert Cliffs will staff a TSC Security Coordinator at 60 minutes to be a liaison to the Security Force. There are no differences or deviations from the NRC's Alternative Guidance.

The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.9 EP Function: Repair Team Activities

The NRC has determined that, from an EP perspective, the ability to get Emergency Core Cooling System (ECCS) equipment operational was the primary basis for necessitating maintenance expertise while on-shift. The Calvert Cliffs ECCS are designed to be redundant and diverse such that common mode failures are very unlikely. From the Calvert Cliffs UFSAR:

The design bases and system requirements during a Design Basis Accident are met with the operation of the SITs [Safety Injection Tanks] and one high-pressure and one LPSI pump, delivering rated flow and assuming complete spillage of the maximum flow leg through the break. During recirculation, one HPSI pump has sufficient capacity to maintain the water level in the reactor vessel above the core.

Ability to meet the core protection criteria is assured by the following features.

- a. A high-capacity passive system (SITs) which requires no power source and will supply large quantities of borated water to rapidly recover the core after a major LOCA up to a break of the largest RCS pipe.*
- b. Low-pressure and high-pressure pumping and water storage systems with internal redundancy which will inject borated water. This capability provides core protection for RCS break sizes equal to and smaller than the largest line connected to the RCS (the 12" pressurizer surge lines or the shutdown cooling and Safety Injection lines). The pumping systems also provide borated water to keep the core covered and to continue cooling the core after the passive water supply has been exhausted. In addition, the high-pressure system will remove reactor core decay and sensible heat during long-term operation after the RCS rupture. Instrumentation and sampling provisions allow monitoring of the recirculated coolant.*
- c. Separated pump rooms and redundant pumping systems which will permit minimum safety features equipment to operate should pipe failure during long-term operation cause one pump room to flood.*
- d. Redundant onsite power supplies in the form of four emergency diesel generators, two dedicated to each unit, each of which has sufficient capacity for minimum safety features operation.*

- e. *All active components which must function individually for the system to meet the performance criteria stated for core protection can be tested during normal reactor operation. Instrument sensors are tested for functioning at operating conditions. In addition, extensive shop and preoperational tests are performed to verify adequate component and system operation.*
- f. *Most of the active components are located outside the containment where they are protected from accident-generated missiles and from post-accident environmental conditions. Those active components located inside the containment need only operate for a short time period after the accident.*
- g. *The four injection lines are arranged such that movement of a ruptured reactor coolant pipe will not cause a subsequent failure of injection lines in non-ruptured loops. The maximum movement of the reactor coolant pipe at the injection nozzle in the non-ruptured loop will not damage the injection line.*
- h. *The Safety Injection systems have been designed to meet the single failure criterion. This includes the fluid systems and the electrical control and instrument systems. All pumps and critical power-operated valves can be actuated from their respective switchgear or control centers. Instrumentation is also provided at locations other than the Control Room to ensure adequate control of the SI system if Control Room evacuation is required. Valve CV-306 in the LPSI system has instrument air removed from the valve operator to ensure the valve remains open under all required conditions.*

As a result of the redundant and diverse design, the need to accommodate maintenance functionality on-shift is unnecessary. Nevertheless, a minimum number of Maintenance personnel are assigned to respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event.

The augmentation (support) of the Electrical and Mechanical positions occur within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC. The augmentation (support) of the I&C position is available within 90 minutes of an Alert ECL, or greater, and is staffed in the OSC. The OSC is the ERF associated with maintenance tasks, as directed by the Command and Control staff in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (1) Radwaste Operator (assigned other functions) 	N/A	N/A

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan does not specifically mention on-shift staffing to address on-shift Repair and Corrective Actions. Calvert Cliffs staff are trained to perform all the necessary actions to initiate the station ECCS systems. The proposed revision utilizes the language from the NRC’s Alternative Guidance.

The Calvert Cliffs Emergency Plan calls for a Radwaste Operator function to be on shift as a collateral duty. Initiatives to reduce plant leakage and minimize dirty radwaste have significantly reduced the volume of waste water since the time of the initial NUREG 0654 guidance. With improvements in water management that have occurred over the years, Calvert Cliffs no longer needs to annotate Radwaste Operator on the Emergency Plan Minimum Staffing Figure 2-1. As such, the Radwaste function is being removed from the Calvert Cliffs Emergency Plan, Figure 2-1 as a collateral on-shift position. A review of procedures and tasks, including the activities directed by the normal plant operating procedures for a plant shutdown, as well as AOPs and EOPs was performed. The minimum shift staff was determined to be sufficient to perform all required actions without support from the Radwaste Operator. Note that all “Auxilliary Building” qualified Equipment Operators on shift at Calvert Cliffs are qualified to operate Radwaste systems when needed.

NRC’s Alternative Guidance Alignment

There are no differences or deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (3) Mechanical Maintenance (OSC) • (2) Electrical Maintenance (OSC) • (2) I&C Maintenance (OSC) 	<ul style="list-style-type: none"> • (1) OSC Mechanical Maintenance Technician • (1) OSC Electrical Maintenance Technician • (1) OSC I&C Technician @ 90 minutes <p>Additional Mechanical and Electrical Maintenance Techs as needed.</p>	<ul style="list-style-type: none"> • (1) Mechanic (OSC) • (1) Electrician (OSC) • (1) I&C Technician @ 90 minutes • Additional Mechanical and Electrical Maintenance Techs as needed.

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan provides for three (3) Mechanical Maintenance technicians (one of whom is designated as a Lead Tech in the EPIPS), two (2) Electrical Maintenance Technicians and two (2) I&C to the OSC at 60 minutes. Calvert Cliffs is revising the Maintenance response consistent with the NRC’s Alternative Guidance, which provides for one (1) technician from each discipline to be staffed as Minimum Staff. Additional technicians are available and would be called as needed depending on the nature of the emergency repairs needed. Calvert Cliffs has a proven Work Management program that has demonstrated the ability to respond to emergent work activity issues during off hours, weekends, and holidays. In an emergency situation, the Minimum Staff OSC responders from each Maintenance discipline would be available to assess the required work activities, begin preparation activities, and request the needed support in a timely manner. The proposed staffing is consistent with the NRC’s Alternative Guidance and provides the necessary personnel to respond to the emergency condition.

NRC's Alternative Guidance Alignment

Calvert Cliffs will staff one (1) Mechanical and one (1) Electrical Maintenance Technician at 60 minutes to perform the maintenance activities from the OSC to respond to the emergency condition. An I&C Technician will respond within 90 minutes consistent with the NRC's Alternative Guidance. Depending on the need, additional Maintenance Technicians will be called in to support the OSC activities. There are no differences or deviations from the NRC's Alternative Guidance.

3.2.10 EP Function: Supervision of Repair Team Activities

The ability to effectively supervise repair team personnel during emergency response is important. The augmentation (support) of these functions is as follows:

- A Lead OSC Supervisor (OSC Director) is staffed within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC.
- An Electrical Supervisor/Lead, a Mechanical Supervisor/Lead, an I&C Supervisor/Lead, and an RP Supervisor/Lead is staffed within 90 minutes of an SAE ECL, or greater, and is staffed in the OSC.

The OSC Director can effectively manage the Maintenance resources for the additional 30 minutes prior to the specific craft (Mechanical, Electrical, or I&C) responding, as demonstrated through drills and exercises.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at Calvert Cliffs.

EP Function: Supervision of Repair Team Activities – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Supervision of Repair Team Activities – Minimum Staff		
Current Emergency Plan/EPIP requirements	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) OSC Director • (1) Assistant OSC Director (TSC) 	<ul style="list-style-type: none"> • (1) OSC Director • (1) Electrical Maintenance Supervisor/Lead @ 90 mins (OSC) • (1) Mechanical Maintenance Supervisor/Lead @ 90 mins (OSC) • (1) I&C Supervisor/Lead @ 90 mins (OSC) • (1) RP Supervisor/Lead @ 90 mins (OSC) 	<ul style="list-style-type: none"> • (1) Lead OSC Supervisor • (1) Electrical Supervisor @ 90 mins • (1) Mechanical Supervisor @ 90 mins • (1) I&C Supervisor @ 90 mins • (1) Radiation Protection Supervisor @ 90 mins

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan Figure 2-1 identifies the Supervisory positions of OSC Director and Assistant OSC Director under the Major Task of Repair and Corrective Actions. The OSC Director effectively manages the Maintenance resources upon activation of the facility.

Calvert Cliffs is adding four (4) Minimum Staff positions to the OSC to be staffed at 90 minutes. These include an Electrical Maintenance Supervisor/Lead Technician, a Mechanical Maintenance Supervisor/Lead Technician, an I&C Supervisor/Lead Technician, and a RP Supervisor/Lead Technician. The addition of the four (4) supervisor positions enhances the ERO response by putting in place effective supervision repair team personnel early in the emergency response.

Assistant OSC Director - The Assistant OSC Director is being re-categorized from Minimum Staff to Full-Augmentation Staff. Under the Calvert Cliffs Emergency Plan, the Assistant OSC Director responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC’s Alternative Guidance, but rather support other personnel at the OSC. The position, as currently defined in the Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The Assistant OSC Director performs support activities such as supervisory actions,

validations, coordination, and assistance activities. The task is performed by the minimum staff craft supervisors/lead technicians. Specific responsibilities are described in the Emergency Plan:

- *The Assistant OSC Director coordinates in plant task and team development and team dispatch.*

The task above is considered a support activity and is not required to directly accomplish any of the NRC's Alternative Guidance identified functions. As such, the Assistant OSC Director position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The Assistant OSC Director position and the listed responsibility is being relocated to an EPIP.

NRC's Alternative Guidance Alignment

Under the proposed Calvert Cliffs Emergency Plan staffing, the OSC Director position is staffed within 60 minutes to oversee the activation of the OSC facility and the maintenance craft as they arrive. The Mechanical, Electrical, I&C, and RP Supervisors/Lead Technicians staff at 90 minutes to support coordination and supervision of repair team activities.

Calvert Cliffs proposes one difference to the NRC's Alternative Guidance. Specifically, Calvert Cliffs proposes to allow a Maintenance or RP Lead Technician to fill the supervisory role at 90 minutes. Under the Exelon Maintenance and RP programs, Lead Technicians are qualified, experienced craft technicians who successfully demonstrate the day-to-day leadership of the technician work force and act as lead on back shifts. Duties and responsibilities include training and development of other employees in performing preventive maintenance and routine equipment service activities. Basic qualifications for a Lead Technician include demonstrated reliability and responsibility and the ability to make quick and effective technical decisions, as well as demonstrated situational leadership, environmental and safety stewardship. The experience and qualification of Calvert Cliffs Lead Technicians satisfy the requirements and the needs of the OSC for the Supervision of Repair Team Activities EP Function.

Other than the difference discussed above, the proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.11 EP Function: Field Monitoring Teams (FMTs)

The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability to provide timely and accurate PARs.

The augmentation (support) for these teams is as follows:

- Onsite Field Monitoring

An On-site Field Monitoring person is staffed consisting of personnel to monitor radiation. This on-site position is responsible for radiological monitoring of the site's PA. The size and configuration of the Calvert Cliffs PA does not support the need for an accompanying driver. The PA can be easily and efficiently traversed without use of a vehicle. This RP person is staffed within 60 minutes of an Alert ECL, or greater.

The On-site Field Monitor is qualified to assess radiation and contamination levels, but is not necessarily an ANSI-qualified RP Technician since the person is under the direct supervision of RP Manager in the TSC. Note: the On-site Field Monitor would not be staffed if the radiological conditions jeopardize the safety of the Onsite Field Monitor.

- Offsite Field Monitoring

An Offsite FMT is staffed, consisting of a Monitor and a driver, within 60 minutes of an Alert ECL, or greater. This Offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

Another Offsite FMT is staffed, consisting of a monitor and a driver, within 90 minutes of an Alert ECL, or greater. This Offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at Calvert Cliffs.

EP Function: Field Monitoring Teams – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
• N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NUREG-0654, Revision 2 guidance for this EP Function.

EP Function: Field Monitoring Teams – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (2) Onsite Field Team RP Technicians • (4) Offsite Field Team Personnel 	<ul style="list-style-type: none"> • Onsite Field Monitoring Individual (Qualified Individual) • Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) • Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver) 	<ul style="list-style-type: none"> • Onsite Field Monitoring Team (1 Qualified Individual and 1 Driver) • Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) • Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver)

Emergency Plan Change Assessment

Onsite Field Monitoring - The current Calvert Cliffs Emergency Plan designates two (2) RP Technicians as Minimum Staff for the EP function of On-site Surveys. The proposed changes to the Calvert Cliffs Emergency Plan designate one (1) RP person for on-site surveys. The number of RP personnel for this function is consistent with the NRC’s Alternative Guidance. Note there is a difference with respect to the designated on-site FMT Driver (discussed below). The reduction in RP personnel for this task is acceptable because one (1) Field Monitor dedicated to monitor and survey the site area is sufficient to provide current and timely data to the TSC/EOF in emergency conditions. At Exelon stations, the onsite Field Monitor is responsible only for monitoring the PA. The size of the station’s PA allows traverse in minutes and a second RP Field Monitor would not be required to perform this function. The monitoring equipment is hand-held and does not require two (2) personnel for transport or operation. The Owner Controlled Area (OCA) has an infrastructure that supports vehicular traffic and will be monitored by the Offsite FMTs. This is the current Exelon process and has been demonstrated successfully through drills and exercises at Exelon stations.

Offsite Field Monitoring Teams - The Offsite FMTs at Calvert Cliffs currently consist of two (2) Field Teams staffing at 60 minutes; each consisting of a driver and one (1) RP personnel. Calvert Cliffs proposes to change the Offsite FMTs to be consistent

with the NRC's Alternative Guidance. Specifically, there would be two (2) FMTs, but one (1) FMT would staff at 60 minutes and one FMT would staff at 90 minutes. Additional time in the response is considered acceptable. Since both FMTs are expected to respond to an event in order to better coordinate radioactive plume tracking action(s), allowing for additional time provides some flexibility in staffing this ERO function without compromising the "reasonable assurance" finding in accordance with 10 CFR 50.47(a).

NRC's Alternative Guidance Alignment

The proposed ERO staffing for Onsite Field Monitoring is different than that proposed in the NRC's Alternative Guidance. Specifically, Calvert Cliffs On-site Field Monitoring will be staffed without a designated driver.

At Exelon stations, the On-site Field Monitor is responsible only for monitoring the area within the PA. The size of the station's PA allows traverse of foot in minutes and a designated driver would not be required to perform this function. The PA is sized to allow efficient traverse without the use of a vehicle. The monitoring equipment is hand-held and does not require a vehicle for transport. Additionally, the PA does not have an infrastructure which readily supports vehicle transportation.

For Exelon stations, the OCA supports vehicular traffic and is the responsibility of one of the Offsite FMTs. This has been demonstrated successfully through drills and exercises at Exelon stations. The 60-minute and 90-minute Offsite FMTs will staff consistent with the NRC's Alternative Guidance. There are no differences or deviations from the NRC's Alternative Guidance for the Offsite FMTs.

3.2.12 EP Function: Media Information

The Media Information function includes the following tasks:

- Manage and coordinate media information related to the event.

Media relations is an important part of effective emergency response and is consistent with the National Incident Management System (NIMS). Revision 1 of NUREG-0654 left the exact staffing composition flexible, with input from applicable OROs, and from the Federal Emergency Management Agency (FEMA).

The augmentation (support) of this function is defined for Calvert Cliffs to be that which is absolutely needed to support this function (i.e., without those positions this function could not occur).

Calvert Cliffs is supported through the Exelon Communications Department at all times. The Communications Department responds to media inquiries initially for any ECL. The Communications Department coordinates with Exelon Management and ERFs to respond to media inquiries. Press releases are issued as appropriate from the Communications Department.

Within 90 minutes of an Alert ECL or higher, the Calvert Cliffs Emergency Plan is being revised to describe the positions of Corporate Spokesperson, Public Information Director, and Joint Information Center (JIC) Director as those necessary to support the additional news media related tasks associated with the more significant classifications. These tasks include periodic press briefings, media engagement, and coordination with State and local Emergency Management Agencies (EMAs).

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon Communications Department is available to address news media inquiries 24 hours/day. This is consistent with the NRC’s Alternative Guidance.

EP Function: Media Information – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Media Information – Minimum Staff		
Current EPIP Requirements	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) Company Spokesperson • (1) JIC Manager • (1) Media Monitor/Rumor Control Coordinator • (1) Logistics Manager • (1) Technical Advisor 	<ul style="list-style-type: none"> • (1) Corporate Spokesperson (established @ 90 min of an Alert or higher ECL) • (1) JIC Director (established @ 90 min of an Alert or higher ECL) • (1) Public Information Director (Does not need to be performed in the JIC, but needs to be established @ 90 min of an Alert or higher ECL) 	<ul style="list-style-type: none"> • JIC/JIS staff to address media inquiries at the Alert ECL • Staff to perform JIC/JIS related tasks at SAE ECL or greater

Emergency Plan Change Assessment

The JIC Staff is identified as Minimum Staff in the Calvert Cliffs EIPs but is not listed on Calvert Cliffs Emergency Plan EP-AA-1011, Figure 2-1, Minimum On-Site Staffing Requirements. Specifically, the Calvert Cliffs EIPs identify (1) Company Spokesperson, (1) JIC Manager, (1) Media Monitor/Rumor Control Coordinator, (1) Logistics Manager and (1) Technical Advisor as Minimum Staff and required to activate the JIC Facility within 120 minutes of an Alert or higher event declaration to the JIC.

The proposed change to the Calvert Cliffs Emergency Plan identifies three (3) Minimum Staff positions to be staffed following an Alert ECL to address the Media Information EP Function. The positions consist of the Corporate Spokesperson, Public Information Director, and JIC Director. The positions are established within 90 minutes of an Alert or higher ECL. The revision increases the JIC ERO response from 120 minutes to 90 minutes.

The following positions, currently identified as Minimum Staff within the Calvert Cliffs EIPs, are being re-categorized as Full-Augmented Staff.

JIC Logistics Manager - Under the Calvert Cliffs EIPs, the JIC Logistics Manager responsibilities do not directly perform actions necessary to accomplish EP functions under NRC's Alternative Guidance, but rather support other personnel at the JIC. The position, as currently defined in the Calvert Cliffs EIPs, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The JIC Logistics Manager performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Manage the administrative support staff.*
- *Develop ERO shift relief rosters for the facility.*
- *Arrange for logistics support.*
- *Oversee set-up and testing of JIC equipment.*
- *Maintain access control to the JIC.*
- *Provide input for facility briefs and updates.*
- *Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.*
- *Coordinate preparation, review and distribution of Media Statements.*
- *Obtain Corporate ED approval for the technical content of Media Statements.*

JIC Technical Advisor - Under the Calvert Cliffs EIPs, the JIC Technical Advisor responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the TSC. The position, as currently defined in the Calvert Cliffs EIPs, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency

Plan may not be effectively implemented). The JIC Technical Advisor performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Provide technical expertise to the JIC staff.*
- *Assist the News Writer with development of technically accurate media statements.*
- *Provide answers to technical questions from the news media regarding the emergency situation.*
- *Periodically monitor EOF/TSC briefings and Technical Information Line to obtain information.*
- *Provide technical information support to the Company Spokesperson.*
- *Monitor event information on the facility display systems.*
- *Provide input for facility briefs and updates.*

Media Monitor/Rumor Control Coordinator - Under the Calvert Cliffs EIPs, the Media Monitor/Rumor Control Coordinator responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the JIC. The position, as currently defined in the Calvert Cliffs Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The Media Monitor/Rumor Control Coordinator performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Supervise media monitoring and Inquiry Phone Team personnel.*
- *Review Media Monitoring team information for trends, misinformation and rumors.*
- *Review Phone Team information for trends, misinformation and rumors.*
- *Ensure adequate staff is available to perform media monitoring and phone team functions.*
- *Provide input for facility briefs and updates.*

The Calvert Cliffs Emergency Plan is revised to activate the (3) positions within 90 minutes of an Alert or higher classification.

The Exelon Corporate Communications Department is capable of responding to and addressing events prior to the arrival of the JIC Minimum Staff at 90 minutes of an Alert ECL or higher.

NRC's Alternative Guidance Alignment

The proposed ERO staffing activates the JIC at a lower ECL than the NRC's Alternative Guidance. Exelon proposes to activate the JIC within 90 minutes of an Alert ECL or higher. The 90-minute activation time is more timely than the current 120 minutes commitment in the Calvert Emergency Plan. The Exelon

Communications Department will provide for the JIC functions until the JIC is activated and turnover of responsibility occurs. The 90-minute activation for the JIC is more timely than the current 120-minute requirement at Calvert Cliffs.

Calvert Cliffs will staff a Corporate Spokesperson at the JIC to maintain Command and Control of the JIC and conduct periodic briefings with the news media. The JIC Director is staffed at the JIC to coordinate with the State, local and Federal agencies to maintain factual consistency of information conveyed. Calvert Cliffs will also staff a Public Information Director to oversee the issuance of news releases and media monitoring/rumor control. The Public Information Director function may be performed remotely by taking advantage of advancements in communication technology.

3.2.13 EP Function: Information Technology

The Information Technology (IT) function includes the following tasks:

- If Emergency Plan functions rely on computer-based equipment, provide IT support.

The ever-increasing advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. Calvert Cliffs has assessed the use of this technology as it is used to enhance the ability to protect the health and safety of the public with respect to EP.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon IT department maintains a 24 hour/day HELP Desk to assist users with IT related issues.

EP Function: Information Technology – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Information Technology – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher) Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time. 	<ul style="list-style-type: none"> (1) EOF/JIC/JIS IT Lead @ SAE ECL or greater Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time. (1) TSC IT Lead @ 90 mins Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.

Emergency Plan Change Assessment

The current Calvert Cliffs Emergency Plan does not identify IT positions as Minimum Staff. Calvert Cliffs maintains a Computer Specialist position at the EOF and TSC as a Full Augmentation position. Performance of digital equipment at EOF and TSC has shown to be acceptable during drills and exercises with this staffing. With the built-in redundancy for communication systems and digital EP assets, Calvert Cliffs has not identified a need to maintain an IT Lead as a Minimum Staff position at the TSC facility. The EOF Computer Specialist is revised to Minimum Staff with a response time of 90 minutes from the Alert or higher ECL.

NRC’s Alternative Guidance Alignment

Calvert Cliffs proposes to staff an IT Lead at the EOF as Minimum Staff; however, Calvert Cliffs proposes to staff the position within 90 minutes of an Alert or higher rather than 60 minutes of a Site Area Emergency. Calvert Cliffs does not propose to staff an IT Lead position as minimum staff at the TSC.

The Calvert Cliffs EOF and TSC contain multiple computers and programs in the facility which support EP functions. This includes Plant Parameter Display Systems, Core Damage Assessment and Dose Assessment programs, as well as Web EOC, fax, and copy machines. Performance during drills and exercises indicates consistent performance of the digital assets in the facilities. The communications, dose assessment and core damage assessment equipment is periodically tested and issues, if any identified, are promptly addressed. The facilities and respective digital equipment are frequently used through administration of training for each team, as well as drills and Exercises. In addition, the IT Department maintains a Site IT Duty Person (SIDP) per procedure IT-AA-2001, Information Technology Response to Emergent Issues Process, for each station. During duty periods, the SIDP must be fit for duty, available, reachable by telephone and/or cell phone at all times. The SIDP shall function as the single point of contact for site IT during the duty period.

- When contacted, must respond to all requests for emergent assistance, including conference calls.
- Manage the response to the emergent IT issues at the site. Primary role to coordinate recovery actions with Vendors and other support teams, as needed.
- Ensure that the appropriate priority and resources are assigned to address all emergent issues.
- Utilize SY-AA-102-201, Call-Outs for Unscheduled Work, for any required Call-Outs.

Additionally, Exelon maintains an IT HELP Desk 24 hours per day, 7 days a week. Many computer issues can be addressed remotely with an IT specialist at the HELP Desk. If additional help is needed at the TSC, the EOF IT Specialist will be available to support resolution of the issue.

In addition, each of these EP related digital assets in the TSC and EOF were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets at the TSC and EOF have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail for any reason. For example, both the Core Damage Assessment program and the Dose Assessment programs have a redundant, non-network laptop computer at their respective facility to maintain the EP function should the designated computer fail. ERO position procedures have written instructions for backup communication measures should the primary means fail.

Finally, performance of digital assets is monitored through either the Corrective Action Program or the EP Drill and Exercise critique process. Performance trends are monitored and corrective actions are implemented as necessary.

3.2.14 EP Function: First Aid and Rescue Operations

The First Aid and Rescue Operations EP Function no longer exists in the NRC’s Alternative Guidance.

- a. On-Shift Staff – The table below identifies the current and proposed Calvert Cliffs Emergency Plan on-shift ERO staff.

EP Function: First Aid and Rescue Operations – On-Shift Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (2) First Aid Team Personnel (collateral duty of Fire Brigade) 	<ul style="list-style-type: none"> • Not Applicable

Emergency Plan Change Assessment

The Calvert Cliffs Emergency Plan Figure 2-1 identifies personnel filling the EP Function of Rescue Operations and First Aid as collateral duties. Calvert Cliffs utilizes the Fire Brigade to satisfy this responsibility. First Aid and Rescue is no longer identified as an EP Function under the NRC’s Alternative Guidance. First Aid is still maintained as part of the NRC’s Alternative Guidance, guidance under Section II.L, “*Planning Standard for Medical and Public Health Support.*” As such, Calvert Cliffs will continue to maintain qualified First Aid and Rescue personnel on shift; however, the personnel resources are no longer listed on the Emergency Plan Table consistent with the NUREG-0654, Revision 2 guidance.

NRC’s Alternative Guidance Alignment

The First Aid and Rescue Operations EP Function does not exist in the NRC’s Alternative Guidance Table B-1 guidance. Therefore, removing the Function from the Emergency Plan is consistent with the NRC’s Alternative Guidance.

- b. Minimum Staff – There are no ERO resources assigned to First Aid and Rescue Operations under the current Calvert Cliffs Emergency Plan. Additionally, the First Aid and Rescue Operations EP Function does not exist in the NRC’s Alternative Guidance. No revision is required to the Calvert Cliffs Emergency Plan.

3.3 Full-Augmentation Staff Assessment

The table below identifies the current Calvert Cliffs Full Augmentation ERO for each of the EP Functions. These positions are removed from the Emergency Plan and are either relocated to an EPIP or re-categorized as Minimum Staff, as annotated below.

EP Function: Communications – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF HPN Communicator • (1) EOF Ops Communicator • (1) TSC Ops Communicator • (1) MCR Ops Communicator • (1) EOC Communicator • (1) State Liaison • (1) County Liaison 	Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Dose Assessments/Projections – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (2) EOF Dose Assessor 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Security – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) TSC Security Coordinator 	<ul style="list-style-type: none"> • TSC Security Coordinator changed to Minimum Staff
EP Function: Repair Team Activities – Full- Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) OSC Team Tracker • (1) OSC Ops Communicator • (1) Maintenance Manager 	<ul style="list-style-type: none"> • OSC Team Tracker to be managed under Emergency Plan Implementing Procedures (EPIP) • Ops Communicator positions to be managed under Emergency Plan Implementing Procedures (EPIP) • Maintenance Manager position to be managed under Emergency Plan Implementing Procedures (EPIP)

EP Function: Supervision of Repair Team Activities – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) OSC Elec Group Lead • (1) OSC I&C Group Lead • (1) OSC Chem Group Lead • (1) OSC Operations Group Lead 	<p>Electrical and I&C Group Leads positions to be changed to Minimum Staff</p> <p>Chemistry and Operations Group Leads to be managed under Emergency Plan Implementing Procedures (EPIP)</p>
EP Function: Field Monitoring Teams – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) Environmental Coordinator 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Media Information – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) Media Liaison • (1) News Writer • (2) Media Monitoring Staff • (1) Inquiry Phone Staff • (1) JIC Security 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Information Technology – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF Computer Specialist • (1) TSC Computer Specialist 	<ul style="list-style-type: none"> • EOF Computer Specialist changed to Minimum Staff • TSC Computer Specialist will be managed under Emergency Plan Implementing Procedures (EPIP)

EP Function: Resource Allocation and Administration – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF Logistics Manager • (1) TSC Administrative Staff • (2) EOF Administrative Staff • (2) JIC Administrative Staff • (2) OSC Administrative Staff 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: First Aid and Rescue Operations – Full Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • First Aid and Rescue Operations 	<ul style="list-style-type: none"> • Removed from Staffing Table

Neither NUREG-0654, Revision 1 nor the NRC’s Alternative Guidance discuss Full Augmentation positions under Table B-1. In the NRC’s Alternative Guidance, Table B-1, Note iii addresses the required minimum staffing as compared to other staff not critical to the effective Emergency Plan implementation. Note iii states:

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

The intent of this note is to emphasize the distinction between ERO minimum staffing and ERO members who serve in a supporting capacity.

The Calvert Cliffs Emergency Plan describes the Minimum Staff ERO that is the absolute minimum needed to implement the station's Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan cannot be effectively implemented). Calvert Cliffs utilizes additional Full Augmentation ERO Staff that are trained, qualified, and available to ensure all available licensee resources are used when a radiological emergency occurs and to provide for staff relief on a 24-hour / 7-day a week extended basis. The Full Augmentation Staff performs support functions such as intra-facility communications, organization liaisons, and expert advisors.

This description of the additional Full Augmentation ERO Staff is being relocated from the Calvert Cliffs Emergency Plan to an EPIP.

The Calvert Cliffs Emergency Plan shall be effectively implemented utilizing the Minimum Staff positions. However, most Full Augmentation Staff will still be assigned ERO teams, be expected to maintain Fitness-for-Duty during duty weeks, and be notified to respond to their ERF at the Alert or higher ECL. Their presence will not be required, however, to activate the respective ERFs.

The complete list of Full-Augmented Staff relocated from the Calvert Cliffs Emergency Plan, along with their respective EP tasks is listed in Attachment 1C of this Enclosure. Each EP task assigned under the Emergency Plan is further evaluated and dispositioned in Attachment 1C.

3.4 **Other Changes to the Emergency Plan**

3.4.1 **Command and Control Turnover**

The Exelon Standardized Radiological Emergency Plan EP-AA-1000, Part II, Sections B.3 and B.4, are being revised to reflect the changes to the Command and Control turnover description. With the proposed changes in ERO, the description of the turnover process is revised to more clearly describe the transfer of non-delegable duties for PARs and State/local notifications directly from the MCR to the EOF. The Command and Control turnover of responsibilities continues to occur between the MCR, TSC, and EOF concurrently on a bridge-line without delay.

Existing requirements and capabilities under the Emergency Plan have not been deleted or reduced as part of this revision and as such, the station Emergency Plan continues to meet regulatory requirements. A review of existing regulatory Commitments was made to ensure existing commitments continue to be met.

3.4.2 **Accountability and Assembly**

The Calvert Emergency Plan Annex directs Assembly and Accountability to occur at the Alert emergency classification level in anticipation of emergency escalation. 10 CFR 50.54(b)(10) directs that *"A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public."* NUREG 0654, Rev 1 states *"Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter."* The Calvert Cliffs Emergency Plan defines the Alert classification as *"Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels."*

While Calvert Cliffs will maintain the capability to perform accountability of all individuals on site at all times, the station proposes to only require Accountability to occur at a Site Area Emergency or higher declaration. This is consistent with the NUREG 0654, Draft Rev 2 guidance which states under evaluation criteria J.4 *"The capability to account for all individuals inside the plant Protected Area following declaration of a SAE or GE is described. The names of missing individuals are ascertained within 30 minutes following the emergency declaration and accountability is maintained continuously thereafter."* The Draft NUREG recognizes that Accountability of personnel should be performed for emergencies consistent with a Site Area Emergency or General Emergency. Note that Calvert Cliffs has committed and will continue to commit to performing evaluation and accountability for certain Security-related Alert classifications.

The Calvert Cliffs Emergency Plan infers that Accountability is not necessarily performed to support Alert classification, but rather is being performed in anticipation of an emergency escalation. Given the experience in the industry, Alert declarations typically do not escalate to a Site Area Emergency or General Emergency, and evacuating or assembling the site personnel to support accountability, when it is not necessary, is distracting and disruptive to the Operations crew responding to the Alert incident. Note that the Shift Emergency Director will continue to maintain the discretion to initiate Accountability at the Alert level if deemed necessary based on the significance of the emergency event.

3.5 **Impact of Proposed Changes on State Emergency Plan**

3.5.1 **Potential Impact of ERO Changes on Off-Site Emergency Response Organizational Interfaces**

Exelon provided a draft copy of the License Amendment Request to representatives of the Maryland Emergency Management Agency (MEMA) to provide the proposed changes to Calvert Cliffs's Emergency Plan.

MEMA provided information via electronic mail dated June 21, 2018, stating that "MEMA is fine with the proposed changes." Comments were provided regarding the confirmatory drill and Exelon is working with MEMA to address their comments. Refer to Enclosure 5, "Information Related to Review of Proposed Changes by the States," for a copy of the referenced State communications.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met.

Section 50.47, "Emergency plans," of Title 10 of the *Code of Federal Regulations* (10 CFR) sets forth the U.S. Nuclear Regulatory Commission's (NRC) Emergency Plan requirements for nuclear power plant facilities. The regulation in 10 CFR 50.47(a)(1)(i) states, in part:

...no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Planning Standard (2) of this section requires that:

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

Section IV.A of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," states:

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:

1. *A description of the normal plant operating organization.*
2. *A description of the onsite emergency response organization (ERO) with a detailed discussion of:*
 - a. *Authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;*
 - b. *Plant staff emergency assignments;*

- c. *Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures.*
3. *A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.*
4. *Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections, and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, and other appropriate governmental entities.*
5. *Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.*
6. *A description of the local offsite services to be provided in support of the licensee's emergency organization.*
7. *By June 23, 2014, identification of, and a description of the assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.*
8. *Identification of the State and/or local officials responsible for planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.*
9. *By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.*

Revision 1 to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980, was intended to aid licensees, applicants for licenses, or State and local emergency response organizations in the development of their Radiological Emergency Response Plans. The NRC endorsed this document for use in

this effort via Revision 2 to Regulatory Guide (RG) 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981. RG 1.101 allowed for licensees to submit alternatives to the guidance provided in NUREG-0654/FEMA-REP-1 for staff review and approval if necessary.

Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

Evaluation Criteria 5 of Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

- 10 CFR 50.54(q) establishes requirements that all holders of a nuclear power reactor operating license must follow and maintain in effect emergency plans which meet the planning standards in 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." 10 CFR 50.47 of 10 CFR, "Emergency plans," sets forth emergency plan requirements for nuclear power plant facilities.
- NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," provides guidance and acceptance criteria to provide a basis for NRC licensees, State and local governments to develop radiological emergency plans and improve emergency preparedness.
- Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," provides guidance related to emergency preparedness and specifically to making changes to emergency response plans.
- NRC Regulatory Issue Summary (RIS) 2005-02, Revision 1, "Clarifying the Process for Making Emergency Plan Changes," which provides guidance to (1) clarify the meaning of a "decrease in effectiveness," as stated in 10 CFR 50.54(q); (2) clarify the process for evaluating proposed changes to emergency plans; (3) provide a

method for evaluating proposed changes to emergency plans; and (4) provide clarifying guidance on the appropriate content and format of applications submitted to the NRC for approval prior to implementation.

- NSIR/DPR-ISG-01, "*Interim Staff Guidance, Emergency Planning for Nuclear Power Plants*," provides guidance for addressing emergency planning requirements for nuclear power plants. This guidance is based on changes to Emergency preparedness regulations 10 CFR 50.47 and 10 CFR 50 Appendix E, that were published in the Federal Register (FR) on November 23, 2011 (i.e., reference 76FR 72560). The guidance should be used by licensees and applicants for implementing changes to onsite EP programs based on the revised emergency preparedness requirements and by NRC for reviewing the adequacy of the revised onsite emergency preparedness programs.

In addition, Exelon also reviewed the "Alternative Guidance for Licensee Emergency Response Organizations" (Alternative Guidance) finalized in the letter from the NRC to NEI, dated June 12, 2018, and draft RIS 2016-10, "*License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation*" (ML15338A291), in support of this submittal.

Exelon has evaluated the proposed changes against the applicable regulatory requirements and guidance criteria. The proposed Emergency Plan changes continue to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

There is no industry precedent for licensees implementing changes based on the NRC's Alternative Guidance; however, there have been other ERO staffing amendments approved by the NRC within the last few years. Specifically, on March 14, 2017, the NRC approved Southern Nuclear Operating Company's License Amendment Request to standardize the Emergency Plans for the Joseph M. Farley, Edwin I. Hatch and Vogtle Nuclear Plant Stations which included changes to the ERO staffing (ML16141A109). Regarding Exelon stations, a revision to the Three Mile Island Emergency Plan related to ERO staffing was approved by the NRC on June 23, 2017 (ML17137A393).

4.3 No Significant Hazards Consideration

In accordance with 10 CFR 50.90, "*Application for amendment of license, construction permit, or early site permit*," Exelon Generation Company, LLC (Exelon) requests amendments to the following licenses:

- DPR-53 and DPR-69 – Calvert Cliffs Nuclear Power Plant, Units 1 and 2, respectively

The requested amendments to the licenses support changes to the Calvert Cliffs Nuclear Power Plant (Calvert Cliffs) Emergency Plan based upon completion of a supporting evaluation of onsite Emergency Response Organization (ERO) staffing. The proposed changes will help align the Exelon nuclear stations minimum staff ERO with the "Alternative Guidance for

Licensee Emergency Response Organizations" finalized in the letter from the NRC to NEI, June 12, 2018.

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 changes to the Calvert Cliffs Emergency Plan and determined that the 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 amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes to the Calvert Cliffs Emergency Plan do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the Calvert Cliffs Emergency Plan do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do 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 changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the Calvert Cliffs Emergency Plan do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

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 changes do 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 changes. Margins of safety are unaffected by the proposed changes to the ERO staffing. The proposed changes are associated with the Calvert Cliffs Emergency Plan staffing and do not impact operation of the plant or its response to transients or accidents. The proposed changes do not affect the Technical Specifications. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes to the Emergency Plan will continue to provide the necessary onsite ERO response staff.

Therefore, the proposed changes to the Calvert Cliffs Emergency Plan do 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 changes are applicable to emergency planning standards for Calvert Cliffs Nuclear Power Plant (Calvert Cliffs) involving proposed ERO staffing changes. The proposed changes do not reduce the capability to meet the emergency planning standards established in 10 CFR 50.47 and 10 CFR 50, Appendix E. The proposed changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed changes.

Furthermore, in accordance with 10 CFR 51, additional information is provided below in support of a finding that the proposed changes do not have significant impact on the quality of the human environment.

Pursuant to 10 CFR 50.90, Exelon Generation Company, LLC (Exelon) is requesting amendments to the licenses for Calvert Cliffs, Units 1 and 2.

Specifically, the proposed changes would revise certain Emergency Response Organization (ERO) positions to align with the minimum staff ERO guidance specified in the NRC's Alternative Guidance.

The proposed changes will also relocate the identified Full Augmentation ERO positions specified in Figure 2-1, "*Minimum On-Site Staff Requirements*," of Calvert Cliffs' Emergency Plan to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, "*Emergency plans*," paragraph (b), 10 CFR 50 Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities*," and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, "*Conditions of licenses*," paragraph (q), "*Emergency plans*," determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

Exelon has determined that the proposed changes do not individually or cumulatively have a significant effect on the human environment. The proposed changes update the licensing basis for Calvert Cliffs related to ERO staffing consistent with guidance in the NRC's Alternative Guidance. The associated changes to the ERO staffing will not affect the quality of the human environment.

As described above, Exelon has determined that operation of the subject facilities in accordance with the proposed changes does not involve a significant hazards consideration, in that it does not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

Exelon has determined that operation of Calvert Cliffs in accordance with the proposed changes does not authorize a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite. The proposed changes are unrelated to any aspects of plant construction or operation that would introduce any changes to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, or other effluents) or affect any plant radiological or non-radiological effluent release quantities. Furthermore, these changes do not diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation.

Exelon has determined that operation of Calvert Cliffs in accordance with the proposed changes does not result in a significant increase in individual or cumulative occupational radiation exposure. The proposed changes will not affect how a structure, system, or component will be used to meet the design bases of the nuclear plant. The proposed changes will have no effect

on the construction or operation of the nuclear plant and, therefore, would not introduce any changes to the amount of occupational radiation exposure.

In conclusion, Exelon has determined that the operational effects of the proposed amendment do not involve: 1) a significant hazards consideration, 2) a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or 3) a significant increase in the individual or cumulative occupational radiation exposure. Consequently, the proposed changes will not have a significant effect on the quality of the human environment.

6.0 REFERENCES

- 6.1 NSIR/DPR-ISG-01, *"Interim Staff Guidance, Emergency Planning for Nuclear Power Plants,"* Revision 0, November 2011.
- 6.2 NEI 10-05, Revision 0, *"Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,"* dated June 2011.
- 6.3 NUREG-0654/FEMA-REP-1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,"* Revision 1, U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, Washington, DC, November 1980.
- 6.4 10 CFR 50.47, *"Emergency plans."*
- 6.5 10 CFR 50, Appendix E, *"Emergency Planning and Preparedness for Production and Utilization Facilities."*
- 6.6 Regulatory Issue Summary 2005-02, Revision 1, *"Clarifying the Process for Making Emergency Plan Changes,"* dated April 19, 2011.
- 6.7 Regulatory Guide 1.219, *"Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors,"* dated November 2011.
- 6.8 Calvert Cliffs Nuclear Power Plant, Units 1 and 2, Updated Final Safety Analysis Report (UFSAR).
- 6.9 Letter from NRC to NEI, "Alternative Guidance for Licensee Emergency Response Organizations", June 12, 2018.

ATTACHMENT 1A

Emergency Plan Marked-up Pages – Calvert Cliffs Nuclear Power Plant

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1011

Affected Pages

Standardized Emergency Plan EP-AA-1000

Mark-ups

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station ~~and Corporate~~ Emergency Director's responsibilities and authority until relieved ~~by a qualified Station Emergency Director~~. The ~~Station-Corporate~~ Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures. ~~Final succession is achieved when the Corporate Emergency Director assumes overall Command and Control, and directs Exelon Nuclear's Emergency Response activities.~~

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). ~~Command and Control may be transferred directly to the Corporate Emergency Director, or transferred to the Station Emergency Director on an interim basis.~~ Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications. Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

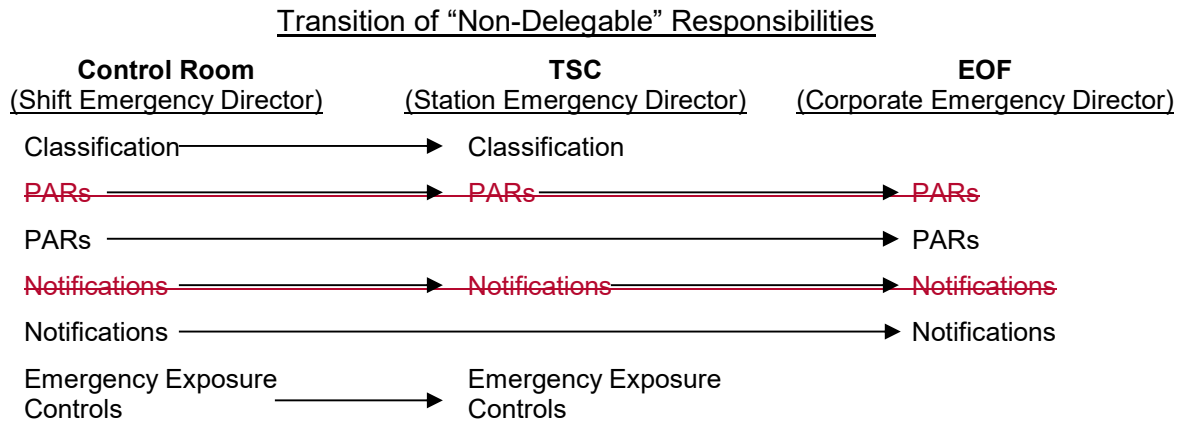
Non-delegable responsibilities include the following functions:

- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). Overall Command and Control is transferred to the ~~Station Emergency Director but may be transferred directly to the~~ Corporate Emergency Director.

~~When the~~ The Station Emergency Director assumes overall authority and responsibility for ~~Classification and Emergency Exposure Control~~ performing all the non-delegable duties from the Shift Manager. The Corporate Emergency Director (EOF) will subsequently relieve the Station Emergency Director (TSC) of overall Command and Control and assumes the non-delegable responsibilities for PAR determination and notifications to offsite authorities.



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within ~~the station specific Annex~~ this Emergency Plan, outlines ERO positions required to meet minimum staffing ~~and full augmentation~~ of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are ~~used as a planning basis to cover a wide range of possible events~~ described in Emergency Preparedness Implementing Procedures (EPIPs). For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)

- Firefighting
- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications
- ~~Initial Liaison responsibilities with Federal, state and local authorities~~

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. ~~The Technical Manager and/or another Other~~ qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director. ~~The responsibilities described for the Station Emergency Director applies to either the Shift Emergency Director or the Station Emergency Director depending on which individual is in Command and Control.~~

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew, ~~Operations Communicator and Damage Control Communicator in the Control Room.~~

2) Station Emergency Director TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities ~~while in Command and Control:~~

- ~~Perform all non-delegable responsibilities as the Emergency Director in Command and Control until relieved by the EOF.~~
- ~~Activate the Facility~~
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.

- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.

~~b) Station Emergency Director Responsibilities while not in Command and Control:~~

- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.
- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

~~3) TSC Director TSC~~

~~The TSC Director reports to the Station Emergency Director and is responsible for the content of information transmitted from the TSC to other agencies (or facilities) and for documenting information received at the TSC in coordination with the Station Emergency Director. Responsibilities include:~~

- ~~• Verify that qualified individuals are filling Communicator positions in the Control Room, TSC and OSC.~~

- ~~• Supervise the activities of the Logistics Coordinator and state/local Communicator.~~
- ~~• Ensure that communications are established with appropriate parties as directed by the Station Emergency Director.~~
- ~~• Ensure that all required notifications to offsite governmental agencies (state/local and NRC) are timely and accurate.~~
- ~~• Act as the Exelon Nuclear Liaison to any NRC Site Team Representatives.~~
- ~~• Ensure that the NRC Site Team Representatives are directed to their appropriate counterparts.~~
- ~~• Assist the Corporate Emergency Director in the acquisition of information for off-site agency updates.~~
- ~~• Record and relay inquiries to the Station Emergency Director. In addition, record responses to such inquiries prior to transmission.~~
- Assist the Station Emergency Director in maintaining proper records.

4) ENS Communicators CR/TSC/OSC

~~The Communicators are responsible for transmitting/receiving information to and from the TSC, OSC and Control Room. General rResponsibilities assigned to the ENS-all~~ Communicators include:

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.

a) ~~Specific responsibilities assigned to the~~ State/Local Communicator include:

- ~~• Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate agencies prior to the EOF accepting Command and Control.~~
- ~~• Monitor NARS communications until released by the TSC Director.~~
- b) ~~Specific responsibilities assigned to the Damage Control Communicator include:~~
 - ~~• Relay requests from the Control Room and TSC for the dispatching of OSC Teams.~~
 - ~~• Apprise the station emergency response facilities of the status of OSC Team activities.~~
- c) ~~Specific responsibilities assigned to the Operations Communicator include:~~
 - ~~• Apprise the TSC and EOF staff of the overall plant condition and significant changes to system and equipment status.~~
 - ~~• Inform the Control Room, TSC, and EOF of significant changes in event status (e.g. changes in classification, command and control, initiation of station assembly, accountability, evacuation, etc.).~~
- d) ~~Specific responsibilities assigned to the TSC Technical Communicator include:~~
 - ~~• Establish and maintain contact with the EOF Technical Advisor.~~
 - ~~• Provide EOF with updates on technical support activities and priorities.~~
- e) ~~Specific responsibilities assigned to the ENS Communicator include:~~
 - Notify the NRC of changes in event classification, ~~prior to the EOF accepting Command and Control~~, and assist ~~the EOF ENS Communicator~~ in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
 - Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.
 - Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

~~f) Specific responsibilities assigned to the HPN Communicator include:~~

- ~~• Maintain continuous communications with the NRC, if requested, via the NRC Health Physics Network (HPN) phone or commercial telephone line.~~
- ~~• Communicate current Health Physics information to NRC representatives, as requested.~~
- ~~• Coordinate the communications of radiological information to the NRC with the EOF HPN Communicator (onsite vs. environmental data).~~

5) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist ~~the Maintenance Manager~~ in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.

- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ~~Operations Communicator and the~~ ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.
- At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

~~6) Technical Manager~~ ~~_____~~ ~~TSC~~

~~The Technical Manager reports to the Station Emergency Director and directs a staff in performing technical assessments of station emergencies and assists in recovery planning. Responsibilities include:~~

- ~~• Accumulate, tabulate and evaluate data on plant conditions.~~
- ~~• Evaluate plant parameters during an emergency to determine the overall plant condition.~~
- ~~• Coordinate core damage assessment activities.~~
- ~~• Identify data points and control parameters that the Operations staff should monitor.~~
- ~~• Ensure that current and adequate technical information is depicted on status boards.~~
- ~~• Identify and direct staff in the development of special procedures needed to effect long term safe shutdown or to mitigate a release.~~
- ~~• Supervise the total onsite technical staff effort.~~
- ~~• Act as the TSC liaison with state and appropriate NRC Site Team representatives.~~
- ~~• Assist the Radiation Protection Manager for onsite radiological/technical matters.~~
- ~~• Assist the Station Emergency Director in evaluating plant based PARs (prior to Corporate Emergency Director accepting command and control) and changes in event classification.~~
- ~~• Supervise the activities of the TSC Technical Communicator.~~

- ~~• Assume the duties and responsibilities of an Evaluator when transition to Severe Accident Management Guidelines (SAMG) is initiated and supervise the activities of the SAMG Evaluator Team~~

7) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

~~8) Logistics Coordinator TSC~~

~~The Logistics Coordinator reports to the TSC Director and provides administrative services in support of emergency/recovery operations. Responsibilities include:~~

- ~~• Coordinate shift relief and continual staffing of the station.~~
- ~~• Arrange for clerical staff at the TSC, OSC and Control Room.~~
- ~~• Assist the Security Coordinator in coordinating ERO and station activities in support of on-going security contingency, accountability or site/area evacuation efforts.~~
- ~~• Support the processing of special procedures and interim reports during an emergency.~~
- ~~• Ensure that event status and priority logs are being maintained in the TSC.~~
- ~~• Coordinate record-keeping efforts at the station.~~
- ~~• Arrange for food, sleeping facilities and other necessary accommodations for onsite emergency workers.~~
- ~~• Arrange for specialized training of Emergency Response personnel as needed.~~

9) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director ~~and supervises the activities of the Radiation Controls Coordinator and Radiation Controls Engineer~~. The TSC RPM directs a staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- ~~Assist the Station Emergency Director in evaluating dose-based PARs (prior to Corporate Emergency Director accepting command and control) and changes in radiological event classification.~~
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.
- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

~~10) Radiation Controls Engineer (RCE) TSC~~

~~The Radiation Controls Engineer reports to the Radiation Protection Manager and coordinates the radiological and chemistry interface between the technical support engineering efforts. Responsibilities include:~~

- ~~• Monitor area and process radiation monitors to identify trends and potential hazards within the station.~~
- ~~• Evaluate plant environmental factors regarding radiological and other hazardous material conditions.~~
- ~~• Evaluate radiological and hazardous material surveys and chemistry sample results as appropriate.~~
- ~~• Direct the performance of sampling activities through coordination with the OSC Chemistry Lead in support of operations and core damage estimates as necessary.~~
- ~~• Coordinate radiological and chemistry information with the Core/Thermal Hydraulic Engineer in support of core damage assessment.~~

~~11) Radiation Controls Coordinator (RCC) TSC~~

~~The Radiation Controls Coordinator reports to the Radiation Protection Manager. The RCC coordinates site and in-plant Radiation Protection response activities through the OSC Radiation Protection Lead. Responsibilities include:~~

- ~~• Support the OSC Radiation Protection Lead in the dispatching of OSC Teams.~~
- ~~• Assist the Operations Manager in planning radiological controls for personnel dispatched from the Control Room.~~
- ~~• Ensure the proper use of protective clothing, respiratory protection, and access controls in the plant as appropriate to control personnel exposure.~~
- ~~• Monitor habitability concerns impacting access to plant and site areas.~~
- ~~• In coordination with the OSC Radiation Protection Lead, assemble and dispatch the Field Monitoring Teams as required.~~
- ~~• Supervise the activities of the HPN Communicator in the TSC.~~
- ~~• Request additional Radiation Protection personnel and/or equipment, as necessary in support of station activities and staff relief.~~

- ~~Prior to EOF Protective Measures Group staffing:~~
 - ~~Perform dose assessments and provide appropriate dose-based PARs.~~
 - ~~Coordinate Field Monitoring Team activities.~~
 - ~~Monitor meteorological conditions and remain cognizant of forecast data.~~
- ~~Following EOF Protective Measures Group staffing:~~
 - ~~Transfer control of the Field Monitoring Teams to the EOF Environmental Coordinator when appropriate.~~
 - ~~Transfer responsibility of dose assessment activities to the EOF Dose Assessment Coordinator.~~
 - ~~Assist the EOF Environmental Coordinator in the acquisition of information for the off-site agency updates.~~

~~12) Maintenance Manager _____ TSC~~

~~The Maintenance Manager reports to the Station Emergency Director and directs a staff in providing labor, tools, protective equipment and parts needed for emergency repair, damage control and recovery efforts to place the plant in a safe condition or return the plant to its pre-accident status. Responsibilities include:~~

- ~~Direct the total onsite maintenance and equipment restoration effort.~~
- ~~Request additional equipment in order to expedite recovery and restoration.~~
- ~~Supervise the activities of the OSC Director and the TSC Damage Control Communicator.~~
- ~~Ensure the Operations Manager is informed of OSC staffing utilization and activities.~~
- ~~In coordination with the Operations Manager, determine the priority assigned to OSC activities.~~
- ~~Ensure adequate staffing of the OSC.~~
- ~~Assist in rescue operations.~~
- ~~Identify required procedures that need to be written or implemented in support of the response efforts.~~

13) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

14) Operations Support Center Director OSC

The OSC Director reports to the ~~Maintenance Manager~~ Emergency Director and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - ~~Operations~~ I&C Maintenance
 - Mechanical Maintenance
 - Electrical/~~H&G~~ Maintenance
 - Radiation Protection

- ~~Chemistry~~

- Coordinate with ~~the OSC~~ Operations ~~Lead~~ in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

15) ~~Assistant Operations Support Center Director~~ _____ ~~OSC~~

~~The Assistant OSC Director reports to the OSC Director and supports the OSC Director in supervising the activities of personnel reporting to the OSC. The Assistant OSC Director may be filled by an OSC Lead, normally the Radiation Protection Lead. Responsibilities include:~~

- ~~• Assist the OSC Director in supervising personnel assigned to the OSC.~~
- ~~• Assist in formation of Field Monitoring Teams as directed by the TSC.~~
- ~~• Assist in formation of sampling teams.~~
- ~~• Ensure that records of in-plant survey information and radiochemistry results are maintained.~~
- ~~• Ensure that accumulated exposure records for all essential onsite personnel are maintained.~~
- ~~• Coordinate with the OSC Leads to organize in-plant teams to support station priorities.~~
- ~~• Ensure that in-plant team dispatch briefings include expected activities and radiological hazards.~~
- ~~Ensure that periodic facility briefings are conducted on plant radiological conditions.~~

16) OSC Leads _____ OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection
- ~~• Chemistry~~
- ~~Operations (on-shift Supervising Operator or designated Operations representative)~~

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.
- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

~~1) Nuclear Duty Officer (NDO)~~

~~The NDO is the Exelon Nuclear individual who acts as the initial Corporate contact for declared events. Responsibilities include:~~

~~a) Actions for all classified events:~~

- ~~• Contact the affected station to verify and obtain updated information concerning emergency response actions and event status.~~
- ~~• Notify Exelon Nuclear Executives of event.~~
- ~~• Provide information on the event to State Duty Officers, if requested.~~
- ~~• Notify the on-call Exelon Communications and Public Affairs Representative.~~
- ~~• Prior to EOF activation, review any news releases for accuracy.~~

~~b) Actions for Alert classifications and above:~~

- ~~• Complete all actions as listed above.~~
- ~~Notify American Nuclear Insurers (ANI) prior to being transferred to the EOF.~~

2) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

~~3) EOF Director _____ EOF~~

~~The EOF Director reports to the Corporate Emergency Director and has the authority, management ability and technical knowledge to assist the Corporate Emergency Director in the management of Exelon Nuclear's offsite ERO.~~

~~In the event that the Corporate Emergency Director becomes incapacitated, the EOF Director shall assume the responsibilities of the Corporate Emergency Director until a transfer of Command and Control can be effected either back to the station or to another qualified Corporate Emergency Director. Responsibilities include:~~

- ~~• Direct and coordinate the activation and response efforts of the EOF staff in support of the Corporate Emergency Director.~~
- ~~• Evaluate the need to augment the EOF staff based on events in progress.~~
- ~~• Assess the effectiveness of ongoing EOF working relationships.~~
- ~~• Monitor information flow within the EOF to ensure that facility activities remain coordinated.~~
- ~~• Prepare state/local notification forms with the assistance of the EOF Radiation Protection Manager and the Technical Support Manager.~~
- ~~• Coordinate services as necessary to support EOF operations.~~
- ~~• Coordinate with the Administrative Coordinator for continual shift staffing requirements.~~
- ~~• Assist in the conduct of Corporate Emergency Director duties.~~
- ~~• Act as the designated alternate for approval of the technical content of Exelon Nuclear Press Releases and information released to the News Media.~~
- ~~• Act as purchasing agent in support of the TSC for contract negotiation/administration.~~

~~4) Technical Support Manager _____ EOF~~

~~The Technical Support Manager reports to the EOF Director and directs the activities of the Technical Support Group. Responsibilities include:~~

- ~~• Assist the Corporate Emergency Director in monitoring changes in event classification.~~
- ~~• Assist the Corporate Emergency Director in determining plant-based PARs when necessary.~~

- ~~• Provide information to the EOF Director for completing the state/local notification form.~~
- ~~• Provide the Corporate Emergency Director information concerning the status of plant operations, and recommendations for mitigating the consequences of the accident.~~
- ~~• Coordinate the overall Exelon Nuclear engineering support from corporate staff and unaffected stations.~~
- ~~• Interface with Industry and contractor engineering support organizations.~~
- ~~• Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impacts or potentially impacts the offsite environment or PARs.~~
- ~~• Provide technical information on facility and system design.~~
- Assist in the development of post-accident recovery measures.

5) Operations Advisor _____ EOF

The Operations Advisor reports to the Technical Support Manager, directs the ENS Communicator, and is responsible for obtaining and analyzing plant status information and ensuring that it is disseminated. Specific responsibilities include:

- ~~• Monitor the Operations Status Line to keep apprised of:
 - ~~— Control Room activities including progress on Emergency Operating Procedures.~~
 - ~~— Significant changes in plant system/equipment status and critical parameters.~~
 - ~~— Possible changes in event classification.~~~~
- ~~• Identify and track critical parameters for the identification and trending of current plant status information.~~
- ~~• Assist the station in identifying Operations resources from corporate staff or unaffected stations for direct support of plant shift operations personnel.~~
- ~~• Assist the ENS Communicator in the completion of the NRC Event Notification Worksheet and in responding to NRC inquiries.~~
- Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impact or potentially impact the offsite environment or PARs.

~~6) ENS Communicator _____ EOF~~

~~The ENS Communicator reports to the Operations Advisor. Specific responsibilities include:~~

- ~~• Notify the NRC of changes in event classification. Generally, the TSC ENS Communicator focuses on real time plant operations and the EOF ENS Communicator focuses on notifications following changes in event classification and overall changes in event response or status.~~
- ~~• Establish and maintain continuous communications with the NRC, if requested, via the NRC-ENS phone or commercial telephone line.~~
- Coordinate NRC communications with the ENS Communicator in the TSC.

~~7) Technical Advisor _____ EOF~~

~~The Technical Advisor reports to the Technical Support Manager and is responsible for obtaining and analyzing technical support information, accident mitigating activities and priorities and ensuring that it is disseminated. Responsibilities include:~~

- ~~• Monitor the Technical Conference Line to remain aware of TSC technical support activities, strategies and priorities.~~
- ~~• Assist the Dose Assessment Coordinator in acquiring technical information pertaining to release pathway and core damage assessment.~~
- ~~• Supervise the activities of the Events Recorder.~~

~~8) Events Recorder _____ EOF~~

~~The Events Recorder reports to the Technical Advisor. Responsibilities include:~~

- ~~• Gather/record approved information on status boards as requested.~~
- Maintain an event chronology/status log.

~~9) Radiation Protection Manager _____ EOF~~

The Radiation Protection Manager ~~reports to the EOF Director and~~ directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the ~~EOF~~ Emergency Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the ~~EOF~~Emergency Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel ~~and the HPN Communicator~~.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

~~10) Environmental Coordinator _____ EOF~~

~~The Environmental Coordinator reports to the EOF Radiation Protection Manager and directs the Field Team Communicator, Field Monitoring Teams and the State Environs Communicator. Responsibilities include:~~

- ~~• Coordinate the transfer of control of the Field Monitoring Teams if initially under the direction of the TSC Radiological Controls Coordinator.~~
- ~~• Ensure communications are established with the TSC to obtain information on the accident conditions, meteorological conditions and estimates of radioactive material releases.~~
- ~~• Maintain cognizance of Field Monitoring Team exposure. When warranted, ask the Dose Assessment Coordinator to initiate an evaluation of the need for administering KI to Exelon nuclear workers.~~
- ~~• Determine needs of the Dose Assessment Coordinator, the Dose Assessor, the HPN Communicator and the State Environs Communicator(s) for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.~~
- ~~• Upon request, provide environmental data to Emergency Public Information personnel.~~
- ~~• Evaluate and coordinate additional equipment and personnel as necessary from unaffected stations to augment and/or relieve station Field Monitoring Teams.~~

~~11) State Environs Communicator _____ EOF~~

~~The State Environs Communicator is staffed as requested by the applicable state agencies. The State Environs Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• As needed, obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Coordinate activities and information flow between the EOF Protective Measures Group and the affected state(s) environmental authorities, including periodic updates on meteorological conditions, Field Monitoring Team activities and survey/sample results.~~
- ~~• Ensure that the Environmental Coordinator is aware of state environmental activities and sample results.~~

~~12) Field Team Communicator EOF~~

~~The Field Team Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Establish and maintain contact with the dispatched Field Monitoring Teams.~~
- ~~• Document the Environmental Coordinator's instructions and then relay this information to the Field Monitoring Teams.~~
- ~~• Document environmental data reported by the Field Monitoring Teams.~~
- ~~• Periodically obtain and document information on Field Monitoring Team radiological exposure.~~
- ~~• Promptly report new environmental or Field Monitoring Team exposure data to the Environmental Coordinator.~~
- Document questions and answers directed to and received from the Field Monitoring Teams. Ensure the Environmental Coordinator is cognizant of these information requests and relay replies to these requests.

13) Dose Assessment Coordinator EOF

The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager ~~and directs the activities of the Dose Assessor and the HPN Communicator.~~ Responsibilities include:

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers ~~when requested by the Environmental Coordinator.~~
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, ~~the HPN Communicator, and the State Environs Communicators.~~

~~14) Dose Assessor _____ EOF~~

~~The Dose Assessor reports to the Dose Assessment Coordinator. Responsibilities include:~~

- ~~• Perform dose projections using the Dose Assessment computer models as directed by the Dose Assessment Coordinator.~~
- Monitor meteorological and plant effluent conditions.
- ~~• Notify the Dose Assessment Coordinator of meteorological changes that may impact identification of downwind areas.~~
- Evaluate the need for administering KI to Exelon nuclear workers ~~when requested by the Dose Assessment Coordinator.~~
- Coordinate Field Monitoring Team activities

~~15) HPN Communicator _____ EOF~~

~~The HPN Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Provide updates and respond to inquiries from the NRC on offsite environmental data, release status, dose projections and changes to PARs for the general public.~~
- ~~• Obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Maintain continuous communications with the NRC, if requested, via the NRC HPN phone or commercial telephone line.~~
- Communicate current Health Physics information to NRC representatives, as requested.

~~16) Logistics Manager _____ EOF~~

~~The Logistics Manager reports to the EOF Director and directs the activities of the administrative, security and liaison personnel. Responsibilities include:~~

- ~~• Ensure contact is made and communications are maintained with appropriate Non-Exelon Nuclear personnel whose assistance may be required to terminate the emergency conditions and to expedite the recovery.~~
- ~~• Advise the EOF Director concerning the status of activities relating to governmental interfaces.~~

- ~~• Obtain support from Human Resources, the Comptroller's Office, the Legal Department, Accounting Department and others as required.~~
- ~~• Coordinate with the Nuclear Duty Officer to maintain communications with ANI and INPO.~~
- ~~• Ensure that access to the EOF is limited to Emergency Responders and authorize admittance to non-Exelon personnel.~~
- ~~• Implement the Exelon Nuclear Fitness for Duty Program.~~
- ~~• Ensure that NRC Site Team Representatives are directed to the Regulatory Liaison upon arrival at the EOF.~~
- ~~• Ensure that updates and information are provided to the EOC Liaisons and to offsite officials present in the EOF.~~
- ~~• Assist in obtaining and coordinating additional equipment/materials and /or technical expertise to support station requests, including Exelon Corporate staff, unaffected stations and vendor/contractors.~~
- ~~• Coordinate maintenance of EOF equipment as necessary.~~
- Ensure shift relief and continual staffing for the EOF.

17) Administrative Coordinator EOF

The Administrative Coordinator reports to the Logistics Manager. Responsibilities include:

- ~~• Direct the activities of the Computer Specialist.~~
- ~~• Direct the clerical staff and ensure the clerical requirements for the other EOF and JIC staff are met.~~
- ~~• Obtain clerical support for the EOF and JIC.~~
- ~~• Coordinate shift relief and continual staffing for the EOF.~~
- Obtain services as appropriate to support operation of the EOF.

18) Computer Specialist EOF

The Computer Specialist reports to the ~~Administrative Coordinator~~Emergency Director. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.

- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

~~19) Security Coordinator _____ EOF~~

~~The Security Coordinator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Provide and interpret information on security events.~~
- ~~• Assist with access control activities at the EOF and JIG.~~
- ~~• Perform the following in support of the TSC Security Coordinator:~~
 - ~~— Provide assistance in resolving security events.~~
 - ~~— Assist as a liaison for local, state and federal law enforcement agencies during security related events.~~
 - ~~— Serve as the primary contact to the security force for additional support, if necessary, during a security event.~~
- ~~• Obtain additional resources to support access control measures needed at the EOF and JIG.~~

20) State/Local Communicator _____ EOF

The State/Local Communicator reports to the ~~Logistics Manager~~Emergency Director. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.
- ~~• Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~21) EOC Communicator _____ EOF~~

~~The EOC Communicator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Coordinate and dispatch EOC Liaisons as needed or requested.~~
- ~~• Establish and maintain periodic contact with each location where Exelon Nuclear EOC Liaisons have been dispatched.~~
- ~~• Ensure EOC Liaisons are provided event information and notifications.~~

- ~~Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~22) County EOC Liaison(s) _____ County EOCs~~

~~The County EOC Liaison(s) will be dispatched to County Emergency Operations Centers (EOCs) based on established agreements with the counties. The County EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report County EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions.~~
- ~~Provide simplified explanations to EOC personnel of technical details distributed through approved channels.~~
- ~~Assist with confirmation/verification of information distributed through approved channels.~~
- ~~Provide media at the EOC with approved Exelon Nuclear press releases.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~23) State EOC Liaison(s) _____ State EOCs~~

~~At the request of state officials and/or at the discretion of the Corporate Emergency Director, Exelon Nuclear will provide Liaison personnel to state Emergency Operation Centers (EOCs). The state EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report state EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions as requested.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~24) Regulatory Liaison _____ EOF~~

~~The Regulatory Liaison reports to the Logistics Manager. Responsibilities include:~~

- ~~Coordinate interfaces between Exelon Nuclear personnel and governmental agencies within the EOF.~~
- ~~Obtain necessary equipment and supplies to support activities of governmental agencies located in the EOF.~~
- ~~Act as the Exelon Nuclear Liaison to the NRC Site Team representatives.~~

c. Public Information Emergency Response Organization1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

~~2) Technical Spokesperson JIC~~

~~The Technical Spokesperson reports to the Corporate Spokesperson. Responsibilities include:~~

- ~~• Assist in development of technical and plant status information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

~~3) Radiation Protection Spokesperson JIC~~

~~The Radiation Protection Spokesperson reports to the Corporate Spokesperson. Responsibilities include.~~

- ~~• Assist in development of environmental and health physics information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

4) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.
- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- ~~• Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.~~
- ~~• Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~

- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

5) ~~JIC Coordinator~~ _____ ~~JIC~~

~~The JIC Coordinator reports to the JIC Director and supervises the facilities support staff. Responsibilities include:~~

- ~~• Ensure the JIC is activated and operational. This includes the availability of communications and visual aids.~~
- ~~• Ensure that access to the JIC areas occupied by Exelon personnel is controlled.~~
- ~~• Establish a minimum frequency for addressing news media/public representatives and ensure that some form of communication occurs within that time frame (i.e., an update at least hourly.)~~
- ~~• Ensure that approved News Releases and Chronological Event Description Logs are made available in the JIC.~~
- ~~• Document unanswered questions and serious public misinformation issues. Follow up on these questions and issues to ensure that they are being adequately addressed.~~
- Coordinate the interface between Exelon Nuclear and the news media/public, including, as necessary, briefings, news conferences, interviews and responses to information requests.

7) ~~Administrative Coordinator~~ _____ ~~JIC~~

~~The Administrative Coordinator reports to the JIC Director. Responsibilities include:~~

- ~~• Coordinate with the EOF Administrative Coordinator to ensure the clerical requirements for the other JIC staff are met.~~
- ~~• Coordinate shift relief and continual staffing for the JIC.~~
- ~~• Obtain services as appropriate to support operation of the JIC.~~

~~8) Access Controller _____ JIC~~

~~The Access Controller reports to the JIC Director and is responsible for controlling facility access and obtaining authorization prior to admitting non-Exelon Nuclear officials into the JIC.~~

9) Public Information Director (PID) _____ JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. ~~The Public Information Director may perform this function at remote locations. The Public Information Director supervises the activities of the, News Writer, Events Recorder and media monitoring and rumor control personnel.~~ Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- ~~Coordinate with the Media Monitoring Staff to r~~Review and access media coverage of the emergency event.

~~10) News Writer _____ JIC~~

~~The News Writer reports to the Public Information Director. Responsibilities include:~~

- ~~Compose draft news releases with assistance from the Technical Spokesperson and the Radiation Protection Spokesperson.~~
- ~~Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~

~~11) Events Recorder _____ JIC~~

~~The Events Recorder reports to the Public Information Director. Responsibilities include:~~

- ~~• Develop a chronological event description log.~~

~~12) Media Monitoring Staff _____ JIC~~

~~The Media Monitor reports to the Public Information Director. Responsibilities include:~~

- ~~• Ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.~~
- ~~• Inform the Public Information Director of all media reports and of actions taken to correct any misinformation or rumors.~~
- ~~• Direct the activities of the Rumor Control Staff with respect to the function of monitoring rumors from sources other than the media.~~

~~13) Rumor Control Staff _____ JIC~~

~~The Rumor Control Staff reports to the Public Information Director and acts in support of the Media Monitors. Responsibilities include:~~

- ~~• Ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully activated, document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~
- ~~• Inform the Media Monitors when rumors representing serious misinformation are encountered.~~

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained ~~within the station specific Annexin Appendix 5~~, lists the key positions of the ERO ~~and the supporting positions assigned to interface with federal, state, and county authorities~~. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. **These positions are further described in the EPIPs.**

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC **Corporate Spokespersons**. The ENC function may be located at either the EOF or the JIC.

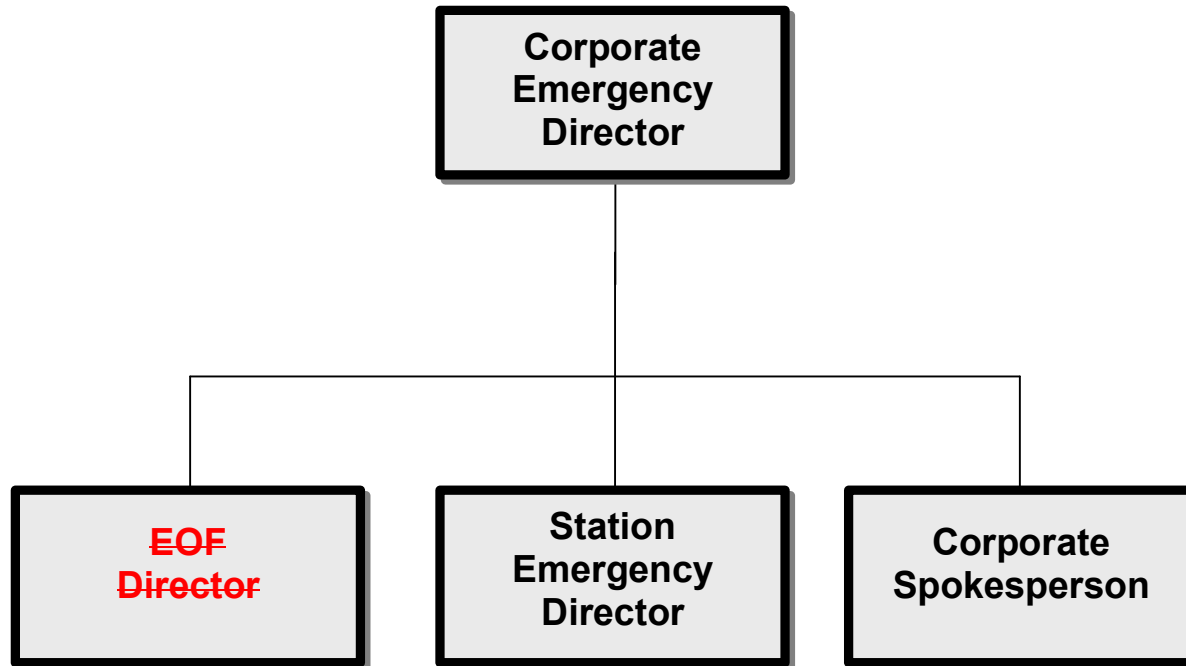
The ~~Corporate ERO EOF~~ is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the ~~Station Shift~~ Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. ~~The EOF may also function in a supporting role to the station when the Station Emergency Director maintains Command and Control.~~ The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:
 - Assistance to the affected utility in locating sources of emergency personnel, equipment and operational analysis.
 - INPO, Electric Power Research Institute (EPRI) and Nuclear Energy Institute (NEI) maintain a coordination agreement on emergency information with their member utilities.
 - INPO provides the "Nuclear Network", or its replacement, electronic communications system to its members, participants, NEI, and EPRI to coordinate the flow of media and technical information about the emergency.

Figure B-1a: Exelon Overall ERO Command Structure



Shaded/Bold Boxes indicate minimum staffing positions.

Figure B-1b: Emergency Onsite Organization

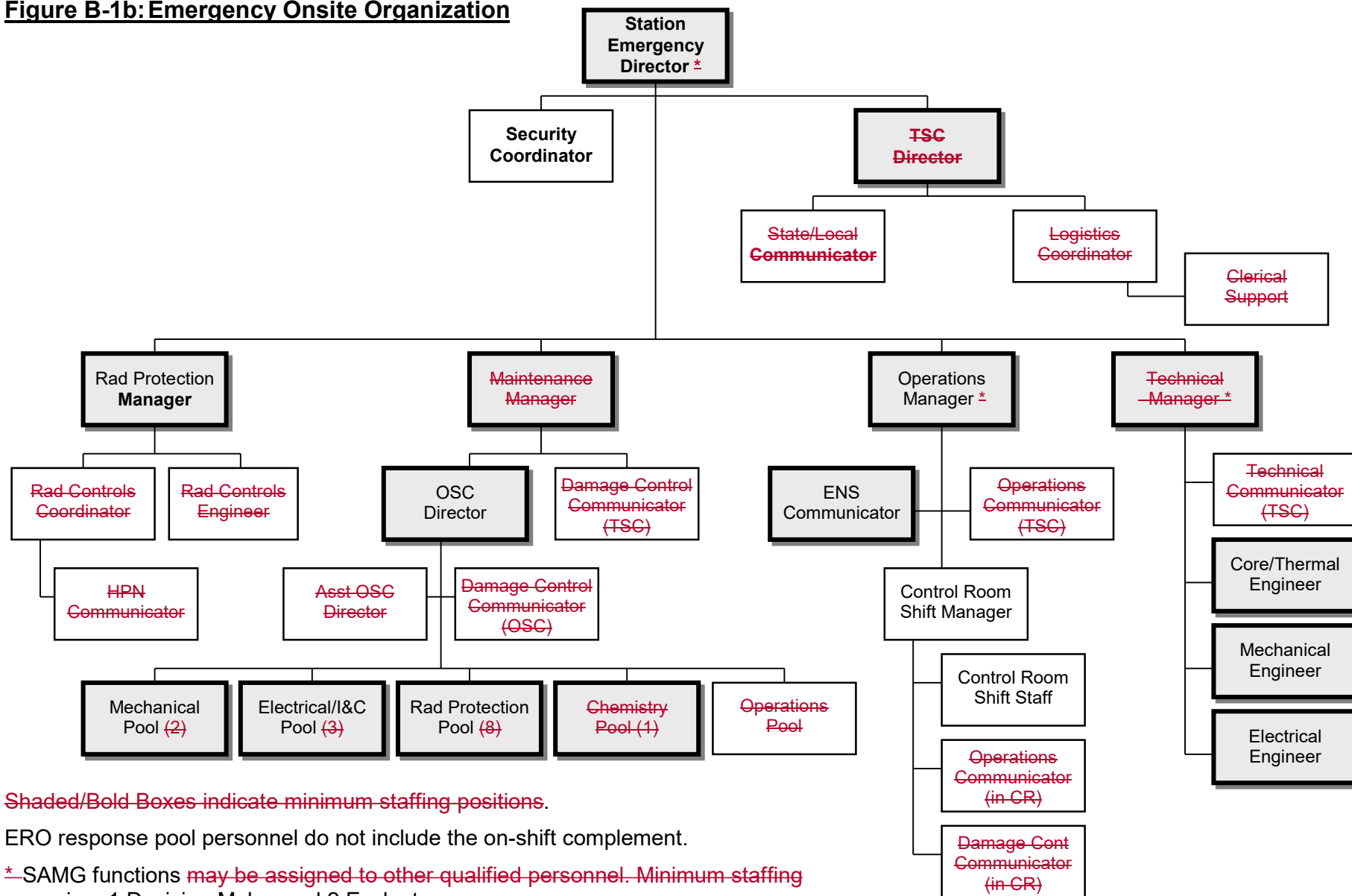
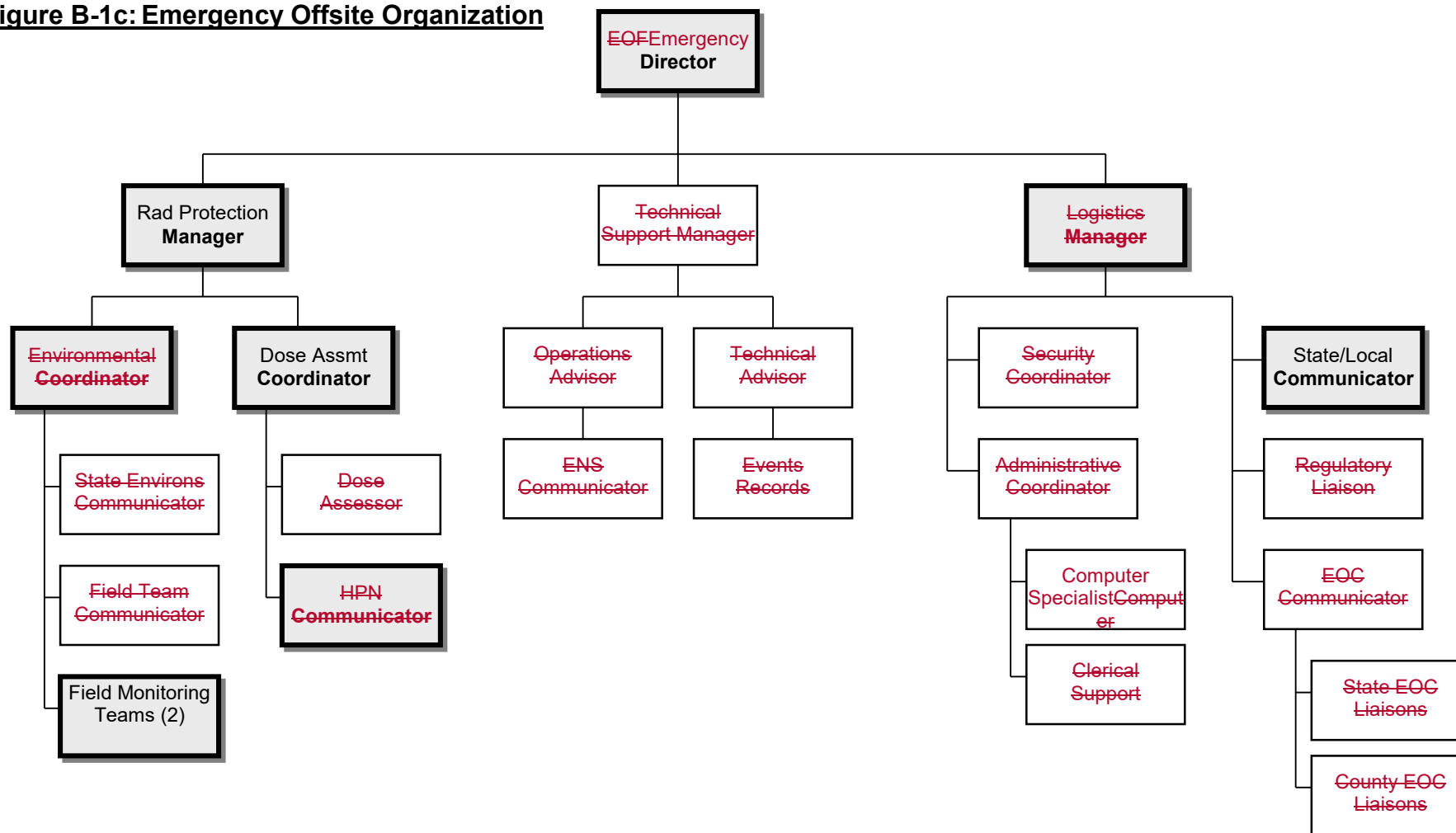
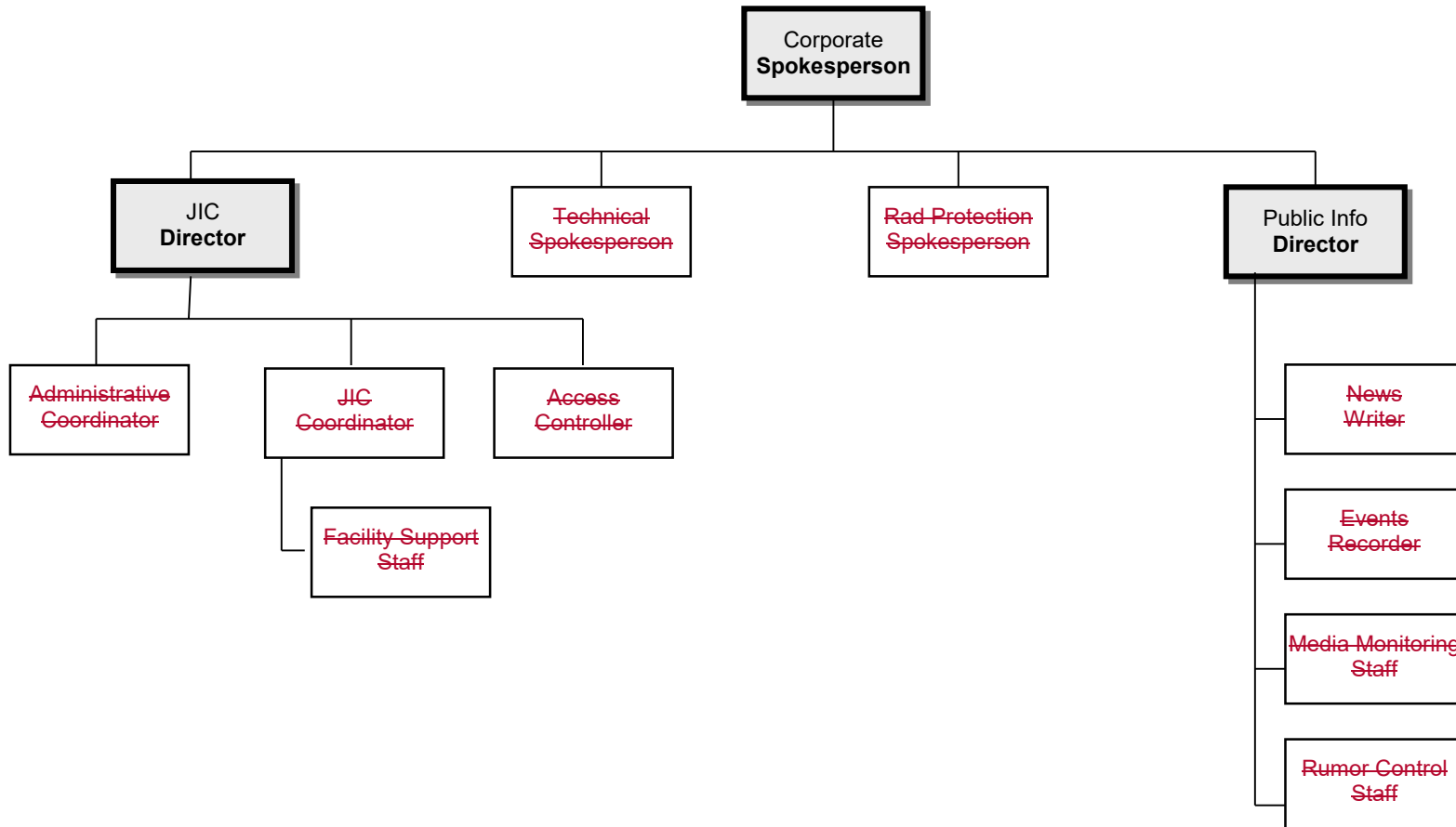


Figure B-1c: Emergency Offsite Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

Figure B-1d: Emergency Public Information Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.

f. NRC Communications (ENS ~~and HPN~~)

Communications with the NRC Operations Center will be performed via the NRC ENS ~~and HPN~~ circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS ~~and/or HPN line~~.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

~~Health Physics Network (HPN): There also exists a separate dedicated telephone between the NRC, the TSC, and EOF for conveying health physics information to the NRC as requested or as an open line.~~

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

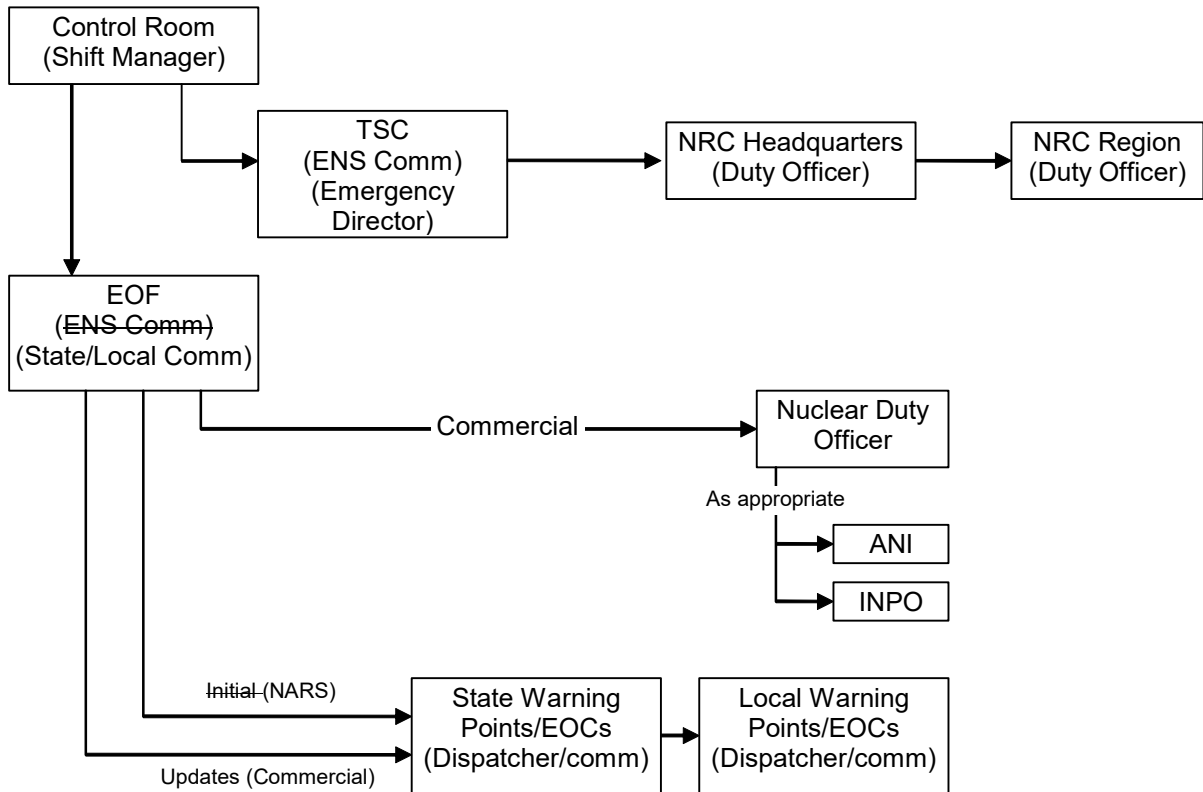
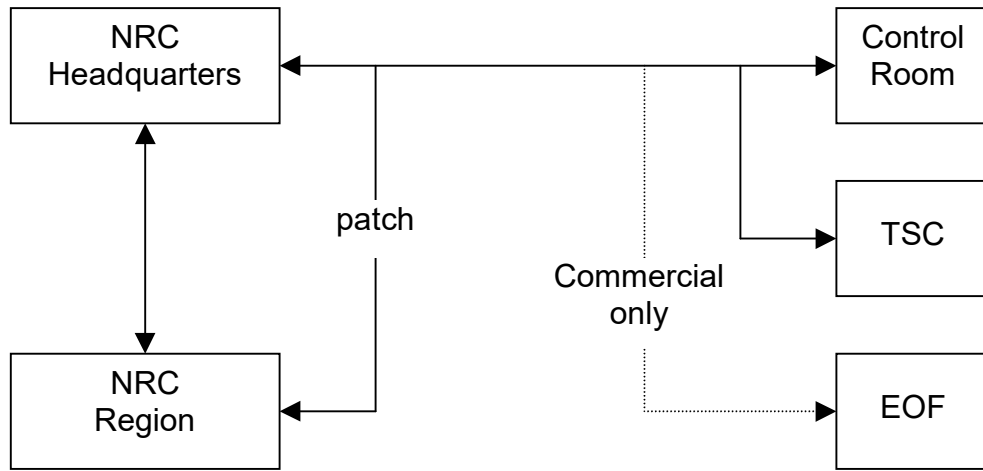


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS ~~and HPN~~ circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through ~~Media Monitoring Staff~~ telephones that the media can call for information about an emergency.
- b. The news media is not permitted into the EOF during an emergency.

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~~JIC Staff. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - ~~Chemistry Personnel,~~
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

~~Although the minimum staffing criteria applies to the JIC, the activation time is not applicable. Public Information personnel must first coordinate the decision to activate the JIC with the appropriate offsite authorities.~~

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
- Radiation Protection
- ~~Chemistry~~
- Maintenance (mechanical, electrical and I&C)

- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift] (OSC)	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift and those responding within 60 min.] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1011

Mark-ups

EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR CALVERT CLIFFS STATION

**CALVERT CLIFFS NUCLEAR POWER PLANT
EMERGENCY RESPONSE PLAN**

TABLE OF CONTENTS

	PAGE
Section 1: Introduction.....	1-1
1.1 Site Description	1-1
1.2 Purpose.....	1-2
1.3 Concept.....	1-2
1.4 Emergency Response Documents	1-3
Figure 1-1, Emergency Planning Zones	1-5
Figure 1-2, 10-Mile Emergency Planning Zone Boundary	1-6
Section 2: Organizational Control of Emergencies	2-1
2.1 Operating Organization.....	2-1
2.2 Standing Review Committees.....	2-1
2.3 Emergency Organization.....	2-1
2.4 Recovery Organization	2-3
2.5 Contracted Services	2-5
2.6 Local Services	2-6
2.7 Participating Governmental Agencies.....	2-6
Figure 2-1, Minimum On-Site Staffing Requirements.....	2-13
Figure 2-2, Emergency Response Organization.....	2-15
Figure 2-3, Recovery Organization.....	2-20
Figure 2-41, Center Interfaces: Unusual Event and Alert.....	2-21
Figure 2-52, Center Interfaces: Site Area and General Emergency.....	2-22
Section 3: Classification of Emergencies	
3.1 Classification System.....	3-1
3.2 Unusual Event	3-1
3.3 Alert	3-2
3.4 Site Area Emergency.....	3-2
3.5 General Emergency.....	3-3
Section 4: Emergency Measures.....	4-1
4.1 Recognition and Classification	4-1
4.2 Notification.....	4-2
4.3 Augmentation	4-2
4.4 Accident Assessment.....	4-3
4.5 Repair and Mitigative Action.....	4-4
4.6 Protective Actions	4-4
4.7 Exposure Control	4-4
4.8 Contamination Control.....	4-5
4.9 Personnel Emergencies	4-5

Section 2: Organizational Control of Emergencies

~~The This section describes the~~ Exelon Emergency Response Organization (ERO) at Calvert Cliffs, its key positions and associated responsibilities ~~are described in the Exelon Nuclear Standardized Radiological Emergency Plan (EP-AA-1000)~~. It outlines the staffing requirements which provide initial emergency response actions and provisions for timely augmentation of on-shift personnel when required. ~~It-The section below~~ also describes interfaces among emergency response personnel and specifies the offsite support available to respond to the nuclear generating stations.

2.1 Operating Organization

The first line of control of any emergency at Calvert Cliffs Nuclear Power Plant lies with the normal shift personnel on duty at such time as an emergency situation should occur. Assistance is available within one hour from other plant staff and operating personnel. Additional assistance is available from Exelon Generation, Federal, and State agencies and contractor personnel. Corporate Headquarters supports the ERO in the following functional areas: Corporate Communications is able to field rumor control issues while providing feedback to the Joint Information Center representatives. Additionally, Headquarters aligned personnel assigned to CCNPP are considered available for assignment to the ERO if their duties do not include extended travel and they have the approval of their corporate sponsor. Emergency positions are staffed so relations to responsibilities and duties of the normal staff complement are essentially unchanged. Operating Organization personnel resources provide the means for continuous (24-hour) plant operations, including manning of communications links.

2.2 Standing Review Committees

Two committees are established in the Updated Final Safety Analysis Report, Section 12.5, Review and Audit of Operations, to ensure adequate review of matters pertaining to nuclear plant safety and integrity. The Plant Operations Review Committee functions in an advisory capacity to the Plant General Manager-Calvert Cliffs Nuclear Power Plant. The Nuclear Safety Review Board is an independent review organization functioning in an advisory capacity to the Chief Nuclear Officer. Membership and specific responsibilities of the Plant Operations Review Committee and Nuclear Safety Review Board are detailed in Fleet procedures.

2.3 Emergency Organization

~~Refer to EP-AA-1000, Exelon Nuclear Standardized Radiological Emergency Plan for a description of the Emergency Organization.~~

~~Emergency Preparedness Unit maintains a list of personnel assigned as primary and alternates to emergency positions. Emergency titles apply to interim, alternate, and primary candidates alike. The first person assuming an emergency position retains title, authority, and responsibilities until relieved.~~

~~Figure 2-1, Minimum On-Site Staffing Requirements, lists the minimum on-site staffing. The following attachments show Emergency Organization relationships:~~

- ~~• Figure 2-2, Emergency Response Organization~~
- ~~• Figure 2-3, Recovery Organizations~~
- ~~• Figure 2-4, Center Interface: Unusual Event~~
- ~~• Figure 2-5, Center Interface: Alert, Site Area and General Emergency~~

~~Description of ERO positions are contained in Appendix 4. For Calvert Cliffs, the ERO position descriptions within the Annex supersede descriptions contained in the Standard Plan.~~

~~2.3.1 Shift Manager~~

~~The Shift Manager has authority and responsibility for reactor plant manipulations including implementation of normal, abnormal, and emergency procedures. The Shift Manager will perform the duties of the Shift Emergency Director. Emergency Director non-delegable duties are transferred in time to another qualified individual. After transferring the non-delegable duties, the Shift Emergency Director reports to the Operations Manager in the TSC.~~

~~Direct reports to the Shift Manager are the:~~

- ~~• Shift Operations Personnel~~

~~Perform plant operations functions from the Control Room and in the plant.~~

- ~~• Shift Technical Advisor:~~

~~The Shift Technical Advisor assists the Shift Manager by making recommendations pertaining to plant safety, operations, accident assessment, and procedures.~~

- ~~• First Aid Responders:~~

~~Nuclear Plant Operations, under the supervision of the Shift Manager, provides first aid medical services to injured persons.~~

- ~~• Fire Brigade Responders:~~

~~Nuclear Plant Operations, under the supervision of the Shift Manager, provides firefighting services to the site.~~

~~2.3.2 Emergency Director~~

~~The Shift Emergency Director has the authority and responsibility to manage and direct the emergency response and serves as the main contact at the site. In addition to directing staff and operations personnel, he or she can call on additional Company and outside agencies' assistance as needed.~~

~~The Emergency Director is also responsible for on-site protective actions and reentry operations.~~

~~The Shift Manager (staffed 24 hours) assumes the Shift Emergency Director duties at the onset of an emergency and retains it until certain non-delegable duties are relieved by augmenting personnel. When physically present and updated on plant conditions, another qualified Shift Emergency Director from the operations department may relieve the Shift Manager until responsibilities are transferred to individuals assigned to the Station/Corporate Emergency Director position as their primary responsibility.~~

~~Additional staff will be called upon to support overall operations of the Emergency Operations Facility and Technical Support Center which may include additional personnel to support administrative, accountability, media control, etc. Emergency Director responsibilities include, but are not limited to, emergency classification, immediate and unilateral initiation of emergency actions, including making notifications and providing protective action recommendations to authorities responsible for implementing off site measures; and requesting Federal assistance.~~

~~The Corporate Emergency Director has primary responsibility for interface with governmental agencies having responsibilities to ensure the protection of the population at risk within the Calvert Cliffs Nuclear Power Plant emergency planning zones. The decision to notify and make off site protective action recommendations to off site authorities may not be delegated.~~

~~The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. The responsibility for classification and Emergency Exposure Controls for the event may not be delegated.~~

~~Transfer of authority and responsibility is by voice acknowledgment of relieving party.~~

2.4 Recovery Organization

Once plant conditions have been stabilized and the Recovery Phase has been initiated, the Emergency Directors may form a Recovery Organization for long-term operations. These types of alterations will be discussed with the NRC prior to implementation.

- For events of a minor nature, (i.e. for Unusual Event classifications) the normal on shift organization is normally adequate to perform necessary recovery actions.
- For events where damage to the plant has been significant, but no off-site releases have occurred and/or protective actions were not performed, (i.e. for Alert classifications) the station Emergency Response Organization, or portions thereof, should be adequate to perform the recovery tasks prior to returning to the normal station organization.

Figure 2-1
MINIMUM ON-SITE STAFFING
REQUIREMENTS

Page 1 of 2

MAJOR FUNCTIONAL AREA	MAJOR TASKS	POSITION, TITLE, OR EXPERTISE	ON-SHIFT	WITHIN (a) APPROX. 60 MINUTES
Plant operations and assessment of operational aspects		Senior Reactor Operator Reactor Operators Auxiliary Operators Shift Technical Advisor Ops Technical Assistant	2 4 5 4 Per UFSAR	—
Emergency direction and control ^(e)		Shift Manager Corporate Emergency Director	4	4
Notification/communication	Notify licensee, Federal, State, and local personnel and maintain communications	Shift Communicator State/Local Communicator ENS Communicator	4	4 4
Support of operational accident assessment	Site emergency coordination	Station Emergency Director	—	4
Radiological accident assessment	a. Off-site dose assessment	EOF Radiation Protection Manager (RPM)	—	4
	b. Off-site surveys	OMT Team Members	—	4
	c. On-site surveys	RP Tech	—	2
	d. In-plant surveys —Chemistry/radio-chemistry	RP Tech Chemistry Technicians	4 4	2 4
Plant System Engineering, repair and corrective actions	Technical support	Core / Thermal Hydraulic Engineer	—	2
		Electrical Engineer	—	4
		Mechanical Engineer	—	4
	Repair and corrective actions	OSC Director	—	4
		Mechanical maintenance	—	3
		Rad Waste Operator	4(b)	—
		Electrical maintenance Instrument and Control (I&C) Technician Assistant OSC Director	— — —	2 2 4
Protective actions (in-plant) operational aspects	Radiation protection: — Access control — HP coverage for repair, corrective actions, search and rescue first-aid and firefighting — Personnel monitoring — Dosimetry	RP Tech	4	4
		TSC Rad. Protection Manager		4
		RP Lead		4
Firefighting		Fire Brigade personnel	5 (f)	Local Support (d)

FIGURE 2-1
MINIMUM ON-SITE STAFFING
REQUIREMENTS

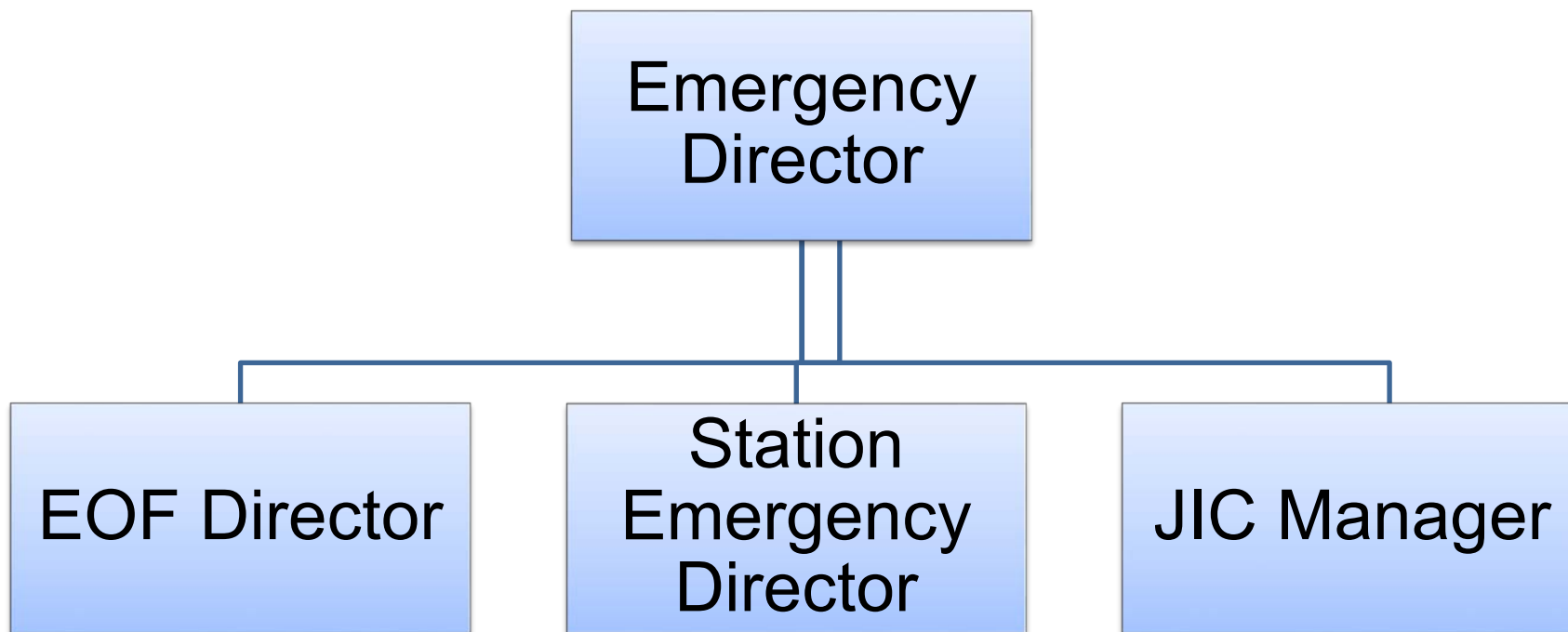
Page 2 of 2

MAJOR-FUNCTIONAL-AREA	MAJOR TASKS	POSITION, TITLE, OR EXPERTISE	ON SHIFT	WITHIN (a) APPROX. 60 MINUTES
Rescue operations and first aid		First Aid Team personnel	2(e)	Local Support (d)
Site access control and personnel accountability	Security, communications, personnel accountability	Security personnel	per Security Plan	-

Notes:

- (a) — ~~Additions required for Alert, Site Area Emergency and General Emergency.~~
- (a) — ~~Provided by shift personnel assigned other functions.~~
- (a) — ~~Overall direction of facility response to be assumed by the person assigned to the Emergency Director position as primary responsibility when all centers are fully manned. Direction of minute to minute facility operations remains with the Station Emergency Director in the Technical Support Center.~~
- (a) — ~~Additions within approximately 30 minutes.~~
- (a) — ~~Rescue operations and first aid is a collateral duty of the designated Fire Brigade (Fire & Safety Watch and Fire & Safety Responder)~~
- (a) — ~~Per the Calvert Cliffs UFSAR, the fire brigade leader and at least two fire brigade members must have sufficient training and knowledge of nuclear safety systems to understand the effects of fire and fire suppression on nuclear safety performance criteria. If the Fire Brigade does not meet this requirement, the sufficient training and knowledge is permitted to be provided by an additional Operations Technical Advisor dedicated to respond with the fire brigade.~~

FIGURE 2-2
Emergency Response
Organization



Off-site ERO
Interface with Off-site Response Organizations (Federal, State and Local) to coordinate Protective Actions for the public

On-site ERO
On-site (OCA) Protective Response and Mitigative Actions

Public Information ERO
Provides information to the Public through the News Media, addresses phone inquiries, conducts Rumor Control operations.

FIGURE 2-2
Emergency Response Organization

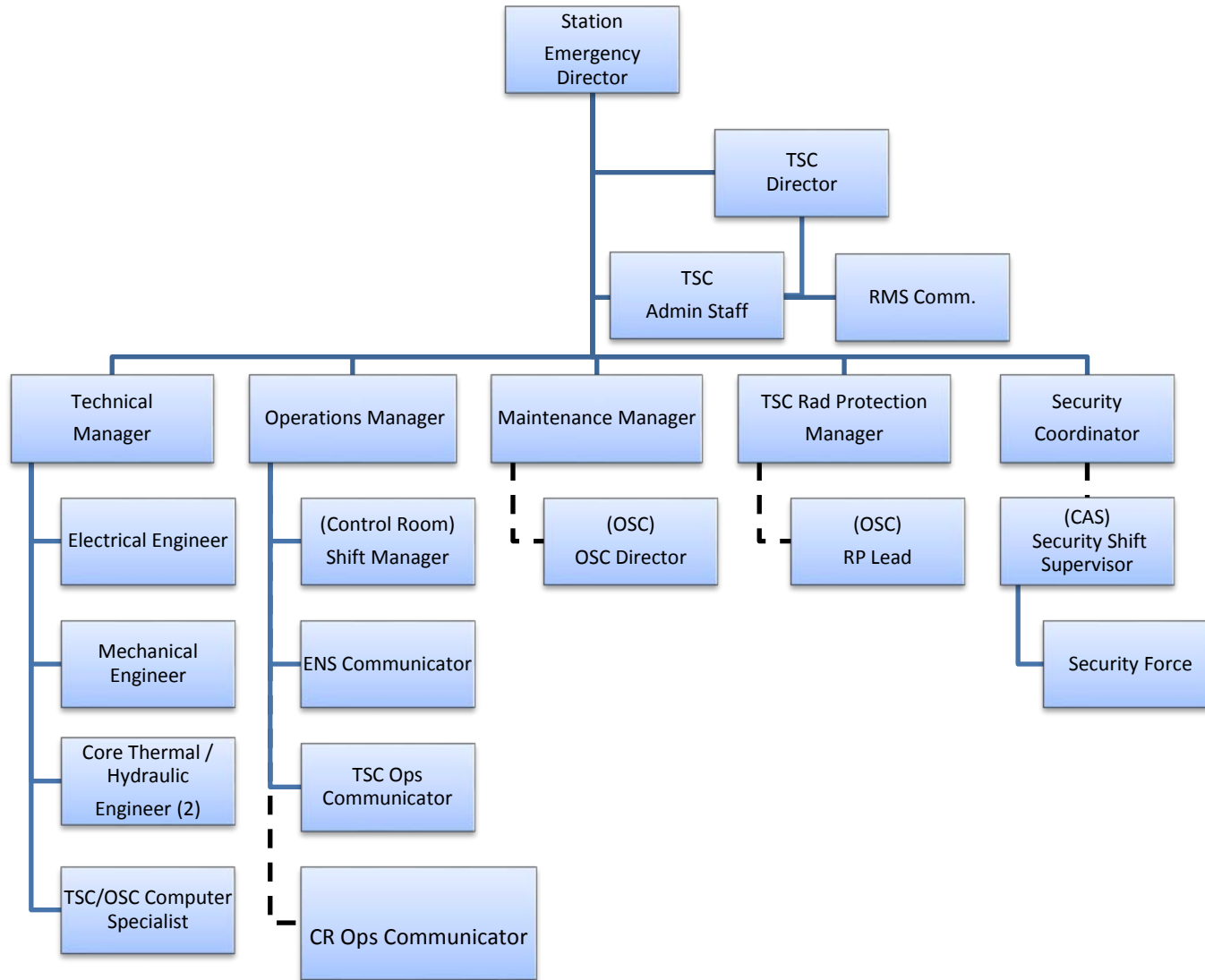


FIGURE 2-2
Emergency Response
Organization

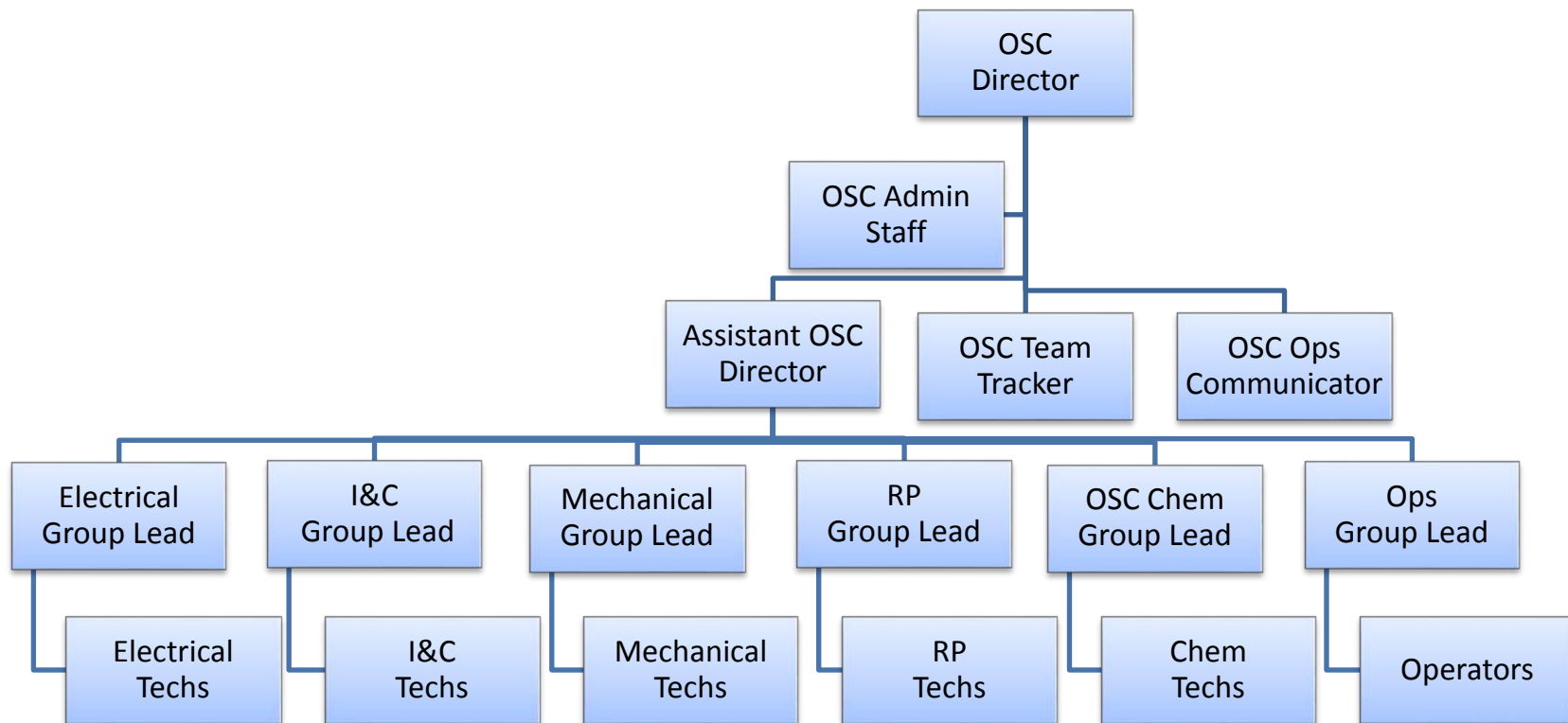


FIGURE 2-2
Emergency Response
Organization

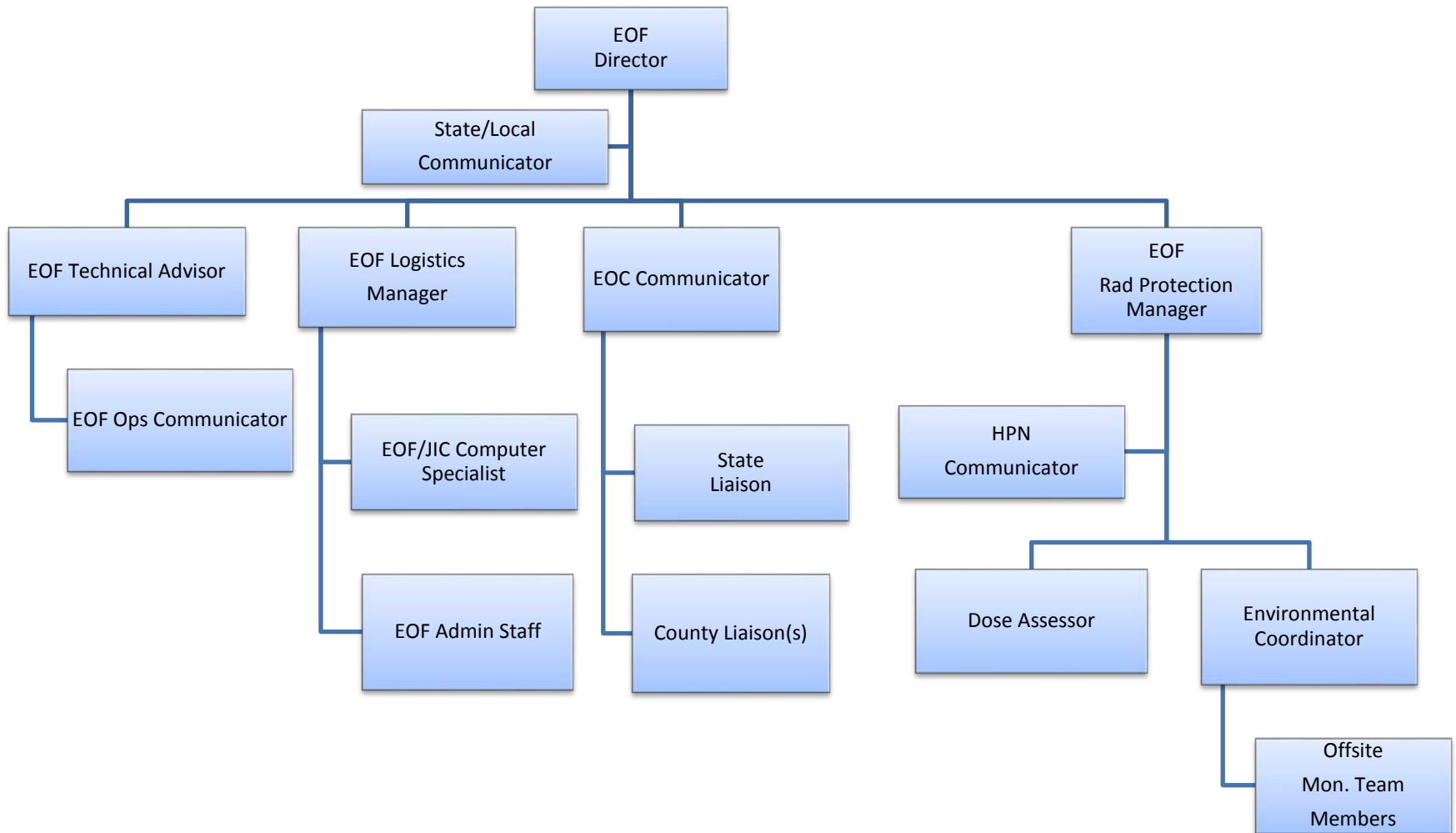


FIGURE 2-2
Emergency Response
Organization

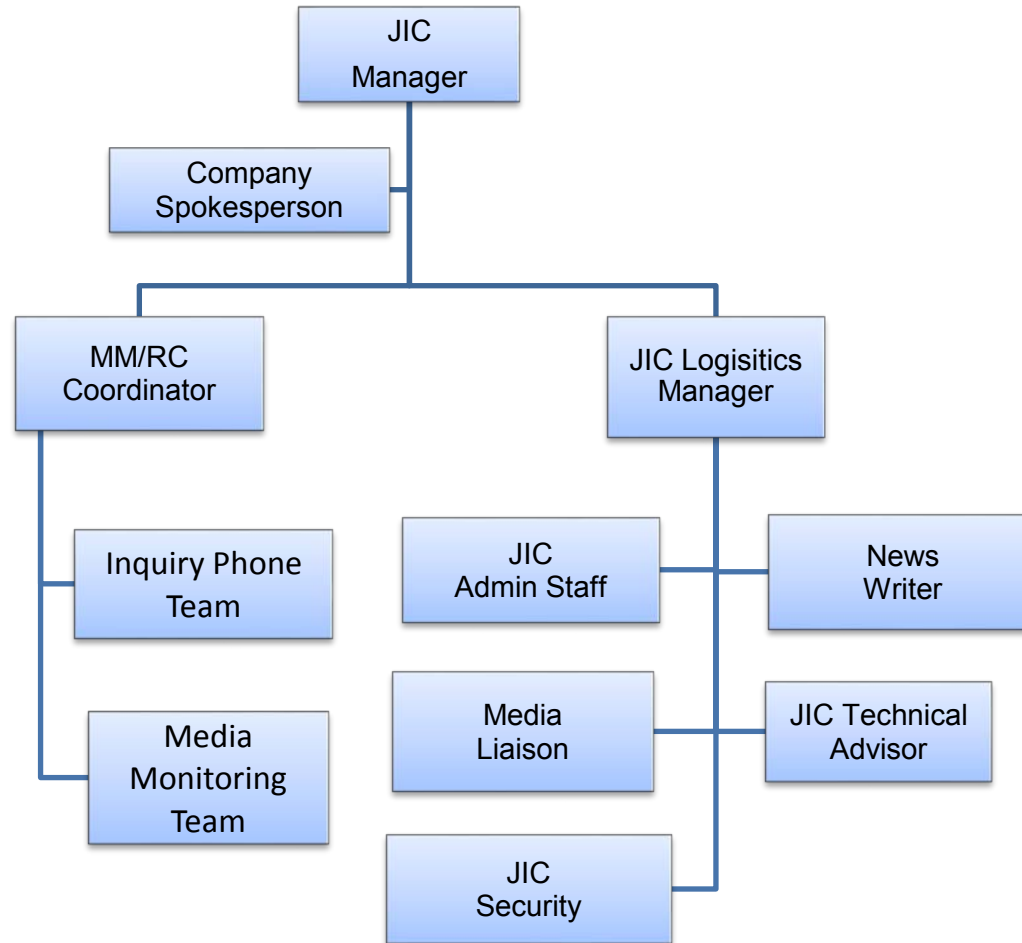
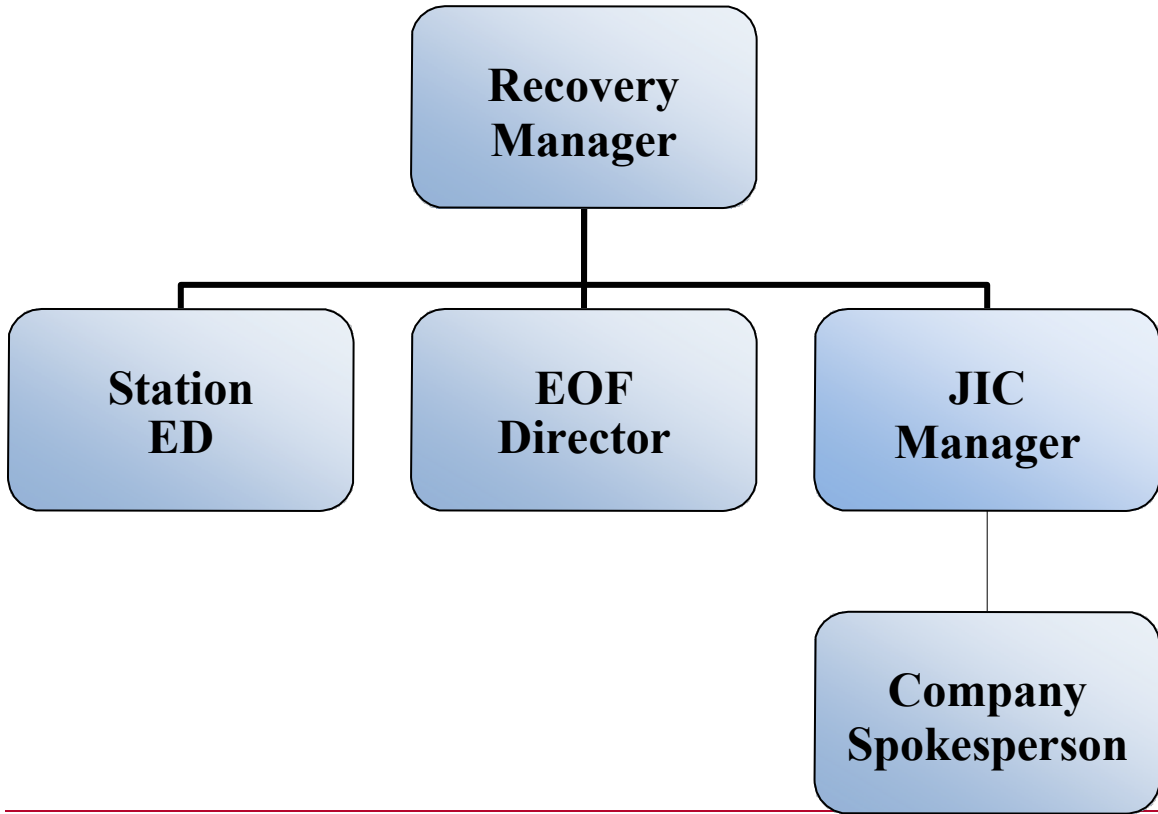


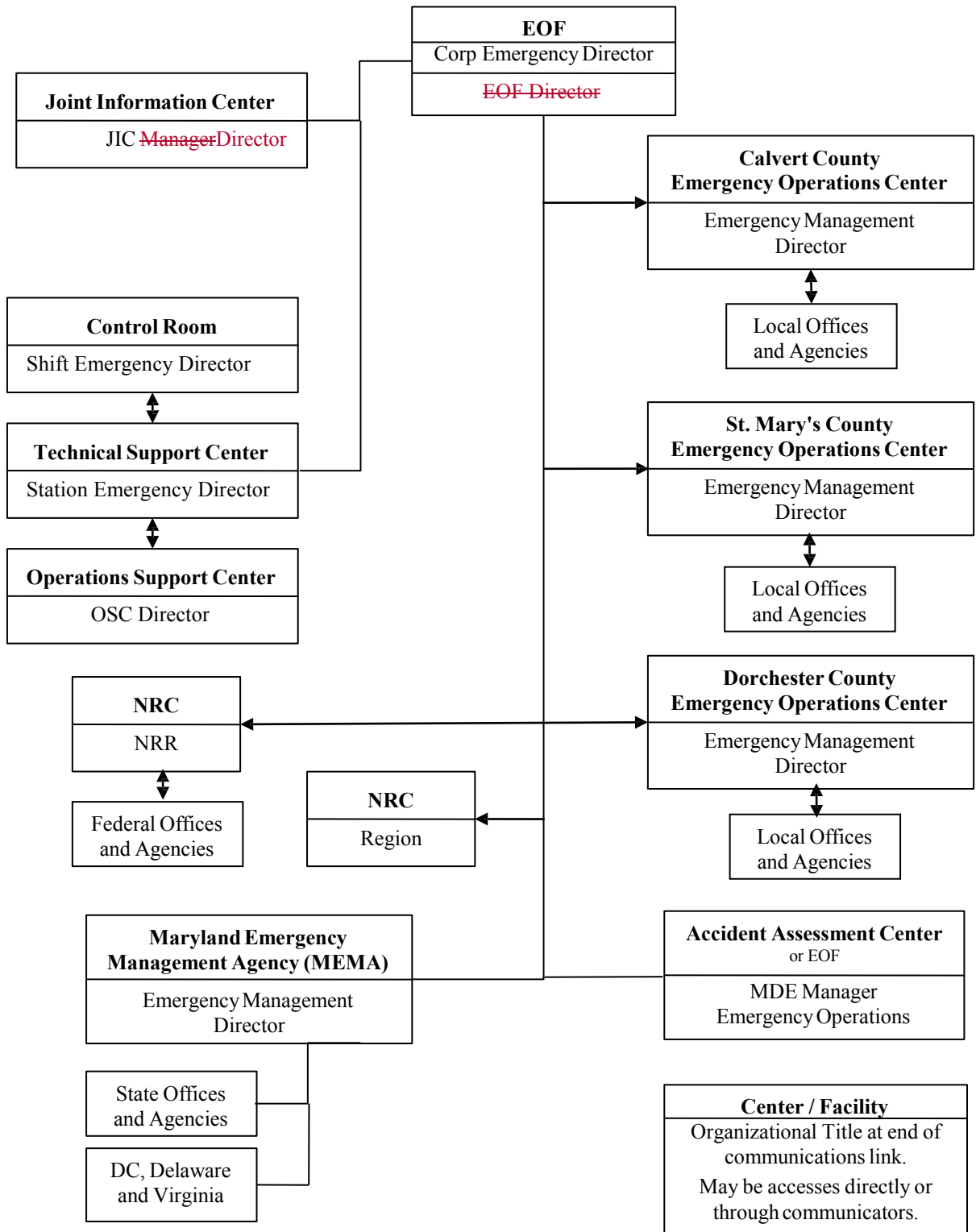
FIGURE 2-3
Recovery
Organization



<u>On-site Recovery</u>	<u>Off-site Recovery</u>	<u>Public Information</u>
Interfaces between normal on-site organizations and the Recovery Organization.	Assist Off-site Agencies with recovery activities. Oversees off-site radiological assessment activities.	Coordinates release of Recovery Phase information to the public through media.

Support positions will be assigned to each area manager as needed based on the event.

FIGURE 2-52
Center Interfaces: Alert, Site Area and General Emergencies



- e) Released material chemical and physical form including relative quantities and concentrations of noble gases, iodines, and particulates.
 - f) Meteorological conditions (wind speed, direction-to and from), stability indicator, precipitation.
 - g) Actual or projected site boundary dose rate; site boundary projected integrated dose.
 - h) Projected dose rates and integrated dose at projected peak and at 2, 5, and 10 miles including sector(s) affected.
 - i) In-plant, on-site, off-site surface radioactive contamination estimate.
 - j) Facility response actions in progress.
 - k) Recommended emergency actions, protective measures, and recommendations set forth in Environmental Protection Agency's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-400-R-92-001), Tables 2-1 and 2-2.
 - l) Support requests.
 - m) Incident prognosis (worsening/terminating).
3. Initial and follow-up messages provide supporting information for messages developed by State and local agencies for the public. Initial and follow-up messages are consistent with the classification scheme addressed in the Emergency Plan Implementation Procedures.
4. Off-site authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone receive initial (prompt notification) and follow-up messages directly. Provision exists to make Initial Notifications within 15 minutes of emergency declaration.

4.2.4 Prompt Public Notification

Prompt public notification using sirens or backup methods such as mass communications or route alerting that facilitates public awareness to turn on their televisions or radios and listen for information or instructions broadcast by state or local government authorities on the Emergency Alert System.

A physical means has been established and demonstrated to exist for providing prompt public notification within the plume exposure pathway Emergency Planning Zone. The Public Alert and Notification System Design Report is described in detail in the upgraded Public Alert and Notification System for Calvert Cliffs Nuclear Power Plant and subsequent correspondence with the Federal Emergency Management Agency.

4.3 Augmentation

4.3.1 Staffing

EP-AA-1000, ~~Figure 2~~Appendix 5, Table 5-1, Emergency Response Organization (ERO) Staffing and Augmentation Plan ~~Minimum On-Site Staffing Requirements~~ outlines ERO positions required to meet minimum staffing ~~and full augmentation~~ of

the on-shift complement at an Alert or higher declaration. Minimum staffing is to occur **as stated on Table 5-1** (within approximately 60 minutes of an Alert or higher classification **for most positions**) with the exception of the Joint Information Center (JIC) which will achieve minimum staffing within approximately **120-90** minutes of event declaration.

4.3.2 Activation

It is the goal to activate the ERO facilities within 15 minutes of achieving minimum staffing. The facility can be declared activated when the following conditions are met:

1. Minimum staffing has been achieved.
2. Personnel are ready to perform their function.
3. Personnel have been briefed on the situation.

4.4 Accident Assessment

Accident assessment consists of a variety of actions taken to determine the nature, effects, and severity of an accident and includes evaluation of reactor operator status reports, damage assessment reports, meteorological observations, seismic observations, fire reports, radiological dose projections, in-plant radiological monitoring, off-site (environmental) radiological monitoring, etc.

Emergency Plan Implementation Procedures provide methods and techniques for:

- A. Determining radioactive material release source term.

Example: Relationship between Containment radiation monitor reading and radioactive material available for release from Containment.

- B. Determining radioactive material release based on plant system parameters and effluent monitors (graphic recorders and the plant computer provide records to back calculate total amounts of plant released radioactivity).
- C. Establishing the relationship between effluent monitor readings and on-site/off-site exposure and contamination for various meteorological conditions.
- D. Determining release rate/projected dose if assessment instrumentation is off-scale or inoperable.
- E. Rapid assessment and chemical sampling and analysis of magnitude and location of radiological hazards (actual or potential) through liquid or gaseous release pathways.
- F. Relating measured parameters (e.g., Containment levels, water and air activity levels) to dose rates for key isotopes (i.e., NUREG-0654, Table 3, Page 18) and gross radioactivity measurements. Provisions are made for estimating integrated dose from projected and actual dose rates and for comparing these estimates with protective action guides.
- G. Periodically estimating total population exposure.
- H. Relaxing protective measures to allow reentry into an evacuated area and for

return of areas to normal use. This condition includes provision for informing the response organizations that a recovery operation is being initiated and of any changes in the organization structure that may occur.

4.5 **Repair and Mitigative Action**

Those emergency measures taken to lessen or terminate an emergency situation at or near the source of the problem includes measures taken to prevent an uncontrolled release of radioactive material, or to reduce the magnitude of a release. Mitigative action includes equipment repair or shutdown, installation of emergency structures, firefighting, and damage control.

4.6 **Protective Actions**

4.6.1 **Accountability**

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

4.6.2 **Evacuation**

1. Evacuation routes for on-site individuals allow access to Maryland Route 2/4 via the plant access road and Camp Canoy Road (through Camp Canoy facility). Transportation is by personal vehicle.

Two roads allow alternative evacuation routes for inclement weather, high traffic density, and specific radiological conditions.

2. Emergency Plan Implementation Procedures provide for on-site, non-essential personnel evacuation during an Alert (for Security Event), Site Area Emergency or General Emergency.

4.6.3 **Off-Site Recommendations**

1. Guidelines for the choice of protective actions during an emergency, consistent with Federal Guidance, are provided in the Emergency Plan Implementation Procedures. The effectiveness of evacuation and protection afforded in residential units and other shelters is assumed to be that which is described in Federal Guidance.

4.7 **Exposure Control**

4.7.1 Emergency Plan Implementation Procedures and Radiation Protection Procedures provide an on-site radiation protection program including exposure guidelines implementation methods for use during emergencies. Provisions are made for distribution of dosimeters (both direct reading and permanent record devices); ensuring dosimeters are read at appropriate frequencies; maintaining dose records for emergency workers.

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. The Joint Information Center is located about twelve miles from the site, in Calvert Industrial Park, Skipjack Road at Hallowing Point Road. It is a well-engineered structure for design life of Calvert Cliffs Nuclear Power Plant.
4. The Joint Information Center will be activated for an **Alert**, 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

APPENDIX 1
NUREG-0654 Evaluation Criteria Cross Reference

<u>NUREG-0654 Reference</u>	<u>Criteria</u>	<u>Plan Reference Section No.</u>
A1 – Item a	Identification of Response Organizations	1.2, 1.3, 2.6, 2.7
A1 – Item b	Organization of Concept of Operations	1.3, 2.1, 2.3- 2.7
A1 – Item c	Organizational Inter-Relationships - Block Diagrams	Fig. 2-3 - Fig. 2-6
A1 – Item d	Designation of Organization Director	2.3, 2.4
A1 – Item e	24 Hour Response/Communication	2.1, 4.2, Fig. 4-2
A2 – Item a	Organization Authority	N/A (not required in Licensee Plans)
A2 – Item b	Legal Basis for Organization Authority	N/A (not required in Licensee Plans)
A3	Formal Intra-government/Organization Agreements	2.5 - 2.7, App. 2
A4	Designated Authority for Organization Resource Continuity	2.1, 2.3, 2.4 EP-AA-1000, Section B
B1	Provision for Onsite Shift Emergency Organization	EP-AA-1000, Section B 2.1, 2.3, Fig. 2.1, Fig. 2.2, Fig. 4
B2	Designation of Onsite Emergency Director	EP-AA-1000, Section B 2.3.1
B3	Line of Succession for the Emergency Director	EP-AA-1000, Section B 2.3.1, 2.3.2
B4	Functional Responsibilities of the Emergency Director	EP-AA-1000, Section B 2.3.1, 2.3.2
B5	Assignment of On-Site Emergency Personnel	EP-AA-1000, Section B Sect. 2, 4.3, Fig. 2.1
B6	Onsite Emergency Organization Interface	Sect. 2, EP-AA-1000, Section B
B7	Designation of Minimum Staffing Requirements for Plant Emergencies	EP-AA-1000, Section B 2.3, Fig. 2.1
B7 – Item a	Logistics Support for Emergency Personnel	App. 4
B7 – Item b	Technical Support for Planning/Re-entry/Recovery Operations	2.4, Fig. 2.3

Appendix 4

Emergency Response Organization Responsibilities

Note: ~~The positions and responsibilities described in this Appendix apply to Calvert Cliffs station and supersede the list of ERO positions and respective ERO responsibilities identified in the Exelon Standard Plan.~~

1.0 Staff Positional Responsibilities

A. The Shift Emergency Director tasks are to:

- ~~• Assume overall command and control of emergency response.~~
- ~~• Classify and declare emergencies.~~
- ~~• Direct and approve off-site emergency notifications to state and local authorities.~~
- ~~• Determining and Issuing Protective Action Recommendations to off-site authorities.~~
- ~~• Notifying or activating the ERO (as deemed appropriate or as procedurally required).~~
- ~~• Authorization of Emergency Exposures and the use of Potassium Iodide.~~
- ~~• Directing site Personnel Protective Actions, such as Assembly, Accountability and/or Evacuation.~~
- ~~• Direct ENS communications with the NRC.~~
- ~~• Integrate ERO activities with the ICP response activities.~~
- ~~• Authorize and direct extreme measures (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~
- ~~• Terminate the emergency event.~~
- ~~• Establish a recovery plan and organization.~~
- ~~• Participate in Inter-Facility briefing to communicate and obtain event and response information.~~

B. The Corporate Emergency Director tasks are to:

- ~~• Assume overall command and control of emergency response.~~
- ~~• Ensure all emergency response facilities are properly staffed and activated.~~
- ~~• Direct and approve off-site emergency notifications to State/Local authorities and NRC.~~
- ~~• Determine and approve Protective Action Recommendations to off-site authorities.~~
- ~~• Integrate ERO activities with the ICP response activities.~~
- ~~• Authorize and prioritize requests for external assistance (governmental) as necessary.~~
- ~~• Authorize and prioritize requests for external assistance (off-site technical support, manpower, etc.) as necessary.~~
- ~~• Ensure other organizations' management/decision makers (NRC, State,~~

- ~~Exelon Generation, etc.) are kept informed of the emergency situation.~~
- ~~• Ensure flow of information within and between the emergency response facilities.~~
 - ~~• Approve technical content of media statements.~~
 - ~~• Authorize and direct extreme measures (SAMGs, EDMGs, §50.54(x), or suspend security controls).~~
 - ~~• Establish a recovery plan and organization.~~
 - ~~• Conduct inter facility briefings to communicate and obtain event and response information.~~
 - ~~• Conduct facility briefs.~~

~~Direct reports to the Corporate Emergency Director are the:~~

- ~~• EOF Director~~
- ~~• Station Emergency Director~~
- ~~• JIG Manager~~

~~C. Station Emergency Director~~

~~The Station Emergency Director reports to the Corporate Emergency Director. This person directs the on-site ERO to provide guidance and technical assistance to the Control Room with the objective of taking the plant to a safe condition with minimal effect on the health and safety of plant personnel and the public.~~

~~The Station Emergency Director tasks are to:~~

- ~~• Manage all on-site emergency activities in support of plant operations.~~
- ~~• Establish plant/station response priorities.~~
- ~~• Classify emergencies and direct PA announcements~~
- ~~• Authorization to ingest KI.~~
- ~~• Approve emergency exposures.~~
- ~~• Integrate ERO activities with the Incident Command Post (ICP) response activities.~~
- ~~• Authorize and prioritize requests for external assistance (on-site technical support, manpower) as necessary.~~
- ~~• Provide informational updates and recommendations regarding plant status and activities.~~
- ~~• Authorize emergency response facility relocations.~~
- ~~• Evaluate event assessments and mitigative strategies to determine operational and response actions.~~
- ~~• Authorize and direct extreme measures (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~
- ~~• Ensure appropriate accountability and search and rescue actions for plant personnel.~~
- ~~• Ensure accountability, once established, is maintained in all occupied areas of the station.~~
- ~~• Ensure appropriate evacuation actions for plant personnel.~~
- ~~• Coordinate between CR, OSC and TSC to set OSC team task priorities.~~

- ~~Conduct facility briefs.~~
- ~~Participate in the Inter Facility briefing to communicate and obtain event and response information.~~
- ~~Assist in the development of recovery plans.~~
- ~~Terminate the Emergency Event.~~

~~Direct reports to the Station Emergency Director are the:~~

- ~~TSC Director~~
- ~~Technical Manager~~
- ~~Operations Manager~~
- ~~Maintenance Manager~~
- ~~TSC Radiation Protection Manager~~
- ~~Security Coordinator~~

~~D. TSC Director~~

~~The TSC Director oversees activation and operations of the TSC. The TSC Director tasks are to:~~

- ~~Activate the Facility.~~
- ~~Establish and maintain facility accountability.~~
- ~~Manage the operation of the facility.~~
- ~~Review and ensure facility displays are maintained current.~~
- ~~Coordinate ERO shift relief rosters for the on-site facilities.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Coordinate integration of the NRC Site Team.~~
- ~~Arrange for logistics support.~~
- ~~Ensure flow of information within and between the emergency response facilities.~~
- ~~Provide input for facility briefs.~~
- ~~Coordinate TSC relocation.~~
- ~~Direct ENS Communications with the NRC.~~

~~Direct reports to the TSC Director are the:~~

- ~~TSC Administrative Staff~~
- ~~RMS Communicator~~

~~E. Technical Manager~~

~~The Technical Manager has authority and responsibility for providing direct mechanical, and electrical engineering oversight to TSC Engineering personnel. The Technical Manager has authority and responsibility for providing engineering support in connection with the UFSAR, ISFSI, USAR, the license, and modifications, and for overseeing activities of engineers and technicians in response to requests from the on-site ERO. This support includes core protection and analysis. This function is supported by Core / Thermal Hydraulic Engineers, a Mechanical Engineer, and an Electrical Engineer. If necessary,~~

~~contractor services may be brought to bear by these Engineering positions. This action does not preclude the Station Emergency Director from soliciting contractor engineering support. The Technical Manager reports to the Station Emergency Director.~~

~~The Technical Manager tasks are to:~~

- ~~• Accumulate, tabulate and evaluate data on plant parameters to determine the overall plant condition.~~
- ~~• Manage the activities of the TSC engineering / technical staff.~~
- ~~• Ensure additional personnel and/or equipment is arranged for, as necessary.~~
- ~~• Identify and direct the development of emergency special procedures needed to effect long term safe shutdown or to mitigate a release.~~
- ~~• Provide engineering support for accident detection and assessment.~~
- ~~• Develop mitigative strategies based on assessment of the event.~~
- ~~• Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the Technical Manager are the:~~

- ~~• Core / Thermal Hydraulic Engineers~~
- ~~• Electrical Engineer~~
- ~~• Mechanical Engineer~~
- ~~• TSC/OSC Computer Specialist~~

F. Operations Manager

~~The Operations Manager is the operating supervisor in the TSC. This person provides general assistance to the Shift Manager; overall coordination of maintenance and related activities necessary to support Control Room needs; and liaison with the Station Emergency Director. The Operations Manager reports to the Station Emergency Director.~~

~~The Operations Manager tasks are to:~~

- ~~• Manage the activities of the TSC Operations staff.~~
- ~~• Assist with emergency classification.~~
- ~~• Provide technical assistance communication path to the Shift Manager.~~
- ~~• Support the establishment of plant/station response priorities.~~
- ~~• Provide operations support for accident detection and assessment.~~
- ~~• Recommend operations actions to the Shift Manager in support of restoration and accident mitigation.~~
- ~~• Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~
- ~~• Coordinate between CR, OSC and TSC to set OSC team task priorities.~~
- ~~• Coordinate operations activities outside of the Control Room between the Shift Manager and OSC.~~

- Provide input for facility briefs.

Direct reports to the Operations Manager are the:

- Shift Manager
- ENS Communicator
- TSC Ops Communicator
- CR Ops Communicator

G. Maintenance Manager

The Maintenance Manager has authority and responsibility for mechanical, electrical and instrument corrective actions and for providing support for on-site protective actions, plant operations, and reentry and recovery.

The Maintenance Manager tasks are to:

- Direct the total onsite maintenance and equipment restoration effort.
- Request additional equipment in order to expedite recovery and restoration.
- Ensure adequate staffing of the OSC.
- In coordination with the Operations Manager, determines the priority assigned to OSC activities.
- Provide input for facility briefs.

Direct reports to the Maintenance Manager are the:

- OSC Director

H. Operations Support Center Director

The Operations Support Center (OSC) Director reports to the Maintenance Manager, or in this person's absence, the TSC Operations Manager or the Shift Manager.

The OSC Director tasks are to:

- Activate the Facility.
- Manage the operation of the facility.
- Develop ERO shift relief rosters for the facility.
- Ensure flow of information within and between the emergency response facilities.
- Support the establishment of plant / station response priorities.
- Direct accountability and search & rescue activities.
- Establish and maintain facility accountability.
- Coordinate between CR, OSC and TSC to set OSC team task priorities.
- Coordinate OSC team dispatch and control.
- Conduct facility briefs.
- Participate in the Inter-Facility Briefing to communicate and obtain event and response information.

Direct reports to the OSC Director are the:

- Assistant OSC Director
- OSC Team Tracker
- OSC Ops Communicator
- OSC Admin Staff

The Assistant OSC Director coordinates in-plant task and team development and team dispatch. Direct reports to the Assistant OSC Director are the:

- Maintenance Group Leads (Electrical, I&C, Mechanical),
- Chemistry Lead
- RP Lead
- Operations Lead

NOTE: OSC Group Leads can be pre-designated or assigned from qualified individuals in the OSC personnel Pool.

The Maintenance Group Leads coordinate their teams' activities for repair and damage control (mechanical, electrical, instrument). The teams are responsible for assessing equipment damage and affecting repairs. Maintenance Group Leads report to the OSC Director.

Technicians reporting to and coordinated by the Maintenance Group Leads include:

- Mechanical Technicians
- Electrical Technicians
- Instrument Technicians

The Operations Lead directs extra operators who comprise the Operations Team for support as requested by the Control Room. The Operations Team supplements on-shift operators for operations tasks. The Operations Lead reports to the OSC Director.

1. TSC Radiation Protection Manager

The TSC Radiation Protection Manager (RPM) has authority and responsibility for on-site radiation protection and personnel radiation exposure control. The TSC RPM also coordinates with the EOF Radiation Protection Manager for support. The TSC RPM reports to the Station Emergency Director.

The TSC RPM tasks are to:

- Manage and direct the radiological activities of the RP personnel.
- Ensure additional personnel and/or equipment is arranged for, as necessary.
- Provide radiological support for accident detection and assessment.

- ~~Monitor, evaluate and communicate conditions involving any release of radioactivity.~~
- ~~Provide support and logistics for site evacuation activities.~~
- ~~Evaluate the need for and ensure proper use of KI.~~
- ~~Ensure habitability is established and maintained for occupied on-site areas.~~
- ~~Ensure proper emergency exposure controls are taken for personnel.~~
- ~~Provide radiological assistance for planning rescue operations and repair team monitoring.~~
- ~~Direct personnel decontamination activities.~~
- ~~Provide radiological assistance for the transfer of injured and/or contaminated personnel.~~
- ~~Provide input for facility briefs.~~

~~The Shift Radiation Protection Technician (staffed 24 hours) assumes this position at emergency onset and retains it until relieved by augmenting personnel.~~

~~The TSC RPM coordinates radiation protection and assessment activities with the OSC Radiation Protection Lead. They are responsible for Iodine-Sampling, Radiological Job Coverage, Radiological Access Control and Emergency Response Facility monitoring (Control Room, Technical Support Center, Operations Support Center, Nuclear Security Facility, and the South Service Building Cafeteria).~~

J. Security Coordinator

~~The Security Coordinator coordinates security activities with the radiological emergency response.~~

~~The Security Coordinator tasks are to:~~

- ~~Integrate ERO activities with the ICP response activities.~~
- ~~Manage the activities of the site security force.~~
- ~~Request and coordinate emergency activities with Local Law Enforcement Agencies (LLEAs).~~
- ~~Provide security related communications with the NRC.~~
- ~~Direct accountability and search & rescue activities.~~
- ~~Direct site evacuation activities.~~
- ~~Direct site access controls activities.~~
- ~~Coordinate security activities between the SSS and OSC.~~
- ~~Determine radiation protection measures for security force personnel and law enforcement agency personnel on site.~~
- ~~Provide input for facility briefs.~~

~~The Security Shift Supervisor reports to the Security Coordinator when the TSC is activated. The Security Shift Supervisor has the authority to and is~~

~~responsible for implementing the Nuclear Security Plan. The Security Shift Supervisor position also supports personnel accountability activities.~~

~~K. Emergency Operations Facility Director~~

~~The Emergency Operations Facility (EOF) Director oversees EOF operations. This responsibility includes information flow, interfacing with State and County Representatives and assisting Corporate Emergency Director as directed.~~

~~The EOF Director tasks are to:~~

- ~~• Direct and coordinate the activation and response efforts of the EOF staff.~~
- ~~• Prepare State/Local notification forms and obtain Corporate ED approval to support the completion of timely offsite event notifications~~
- ~~• Participate in the Inter-Facility briefing to communicate and obtain event and response information.~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the EOF Director are the:~~

- ~~• State / Local Communicator~~
 - ~~• EOF Technical Advisor~~
 - ~~• EOF Radiation Protection Manager~~
 - ~~• EOF Logistics Manager~~
 - ~~• EOC Communicator~~
-

L. EOF Radiation Protection Manager

~~The EOF Radiation Protection Manager (RPM) reports to the EOF Director. This position has authority and responsibility to assess, map, and coordinate calculations of radiological data required to depict on-site and off-site radiation dose and/or exposure rates. This position evaluates radiological conditions and makes recommendations to the Corporate Emergency Director.~~

~~The EOF RPM tasks are to:~~

- ~~• Manage and direct the radiological activities of the offsite Radiological Staff.~~
- ~~• Coordinate activities with the external agency field monitoring teams.~~
- ~~• Coordinate the comparison and exchange of dose assessment results with off-site agency personnel.~~
- ~~• Monitor, evaluate and communicate conditions involving any release of radioactivity.~~
- ~~• Oversee the performance and evaluate the results of dose projection activities.~~
- ~~• Perform dose assessment.~~
- ~~• Oversee the performance and evaluate the results of OMT activities.~~
- ~~• Provide support and logistics for site evacuation activities.~~
- ~~• Evaluate conditions and determine recommendations for PARs.~~
- ~~• Provide assistance to state and federal agencies for ingestion pathway radiological activities.~~
- ~~• Provide radiological data that impacts emergency action level (EAL) classifications.~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the EOF RPM are the:~~

- ~~• HPN Communicator~~
- ~~• Dose Assessor(s)~~
- ~~• Environmental Coordinator~~

M. EOF Logistics Manager

~~The EOF Logistics Manager reports to the EOF Director. This position has authority and responsibility to provide administrative support to the EOF and logistics support to the entire ERO.~~

~~The EOF Logistics Manager tasks are to:~~

- ~~• Oversee staffing of EOF and assist with staffing for other facilities.~~
- ~~• Assist offsite personnel responding to the facility.~~
- ~~• Develop ERO shift relief rosters for the facility.~~
- ~~• Coordinate ERO shift relief rosters for all facilities and the notification of personnel.~~
- ~~• Manage the administrative support staff.~~
- ~~• Review and ensure facility displays are maintained current.~~
- ~~• Manage the procurement and logistical support activities for the on-site~~

- ~~and off-site emergency response personnel and facilities.~~
- ~~• Monitor and maintain access controls for the EOF.~~
- ~~• Communicate with and coordinate support for ERO responders or plant personnel sent off-site to relocation areas.~~
- ~~• Communicate with the NDO to maintain communications with ANI, DOE, and INPO.~~
- ~~• Coordinate integration of the NRC site team.~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the EOF Logistics Manager are the:~~

- ~~• EOF / JIC Computer Specialist~~
- ~~• EOF Admin Staff~~

~~N. EOC Communicator~~

~~The EOC Communicator reports to the EOF Director. This position has the responsibility to coordinate information flow to the off-site representatives located in the EOF and Calvert Cliff liaisons located at the off-site Emergency Operations Centers.~~

~~The EOC Communicator tasks are to:~~

- ~~• Monitor plant conditions and event response activities.~~
- ~~• Provide information updates to and address questions and support requests from the off-site liaisons.~~
- ~~• Communicate actions being considered or taken by Counties and State to the EOF.~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the EOC Communicator are the:~~

- ~~• State Liaison~~
- ~~• County Liaisons~~

~~O. EOF Technical Advisor~~

~~The EOF Technical Advisor provides technical expertise to the EOF Staff.~~

~~The EOF Technical Advisor tasks are to:~~

- ~~• Monitor plant status and Control Room activities.~~
- ~~• Track and trend critical parameters for the identification and trending of current plant status information.~~
- ~~• Provide input for facility briefs.~~

~~Direct reports to the EOF Technical Advisor are the:~~

- ~~• EOF Operations Communicator~~

P. Joint Information Center Manager

~~The Joint Information Center (JIC) Manager oversees operations of the JIC.~~

~~The JIC Manager tasks are to:~~

- ~~• Activate the Facility.~~
- ~~• Manage the operation of the facility.~~
- ~~• Assist off-site agency personnel responding to the facility.~~
- ~~• Coordinate integration of the NRC Site Team.~~
- ~~• Provide liaison to the NRC Site Team.~~
- ~~• Arrange for support for Emergency Alert System (EAS) information.~~
- ~~• Ensure flow of information within and between the emergency response facilities.~~
- ~~• Interface with off-site agency Public Information Officers (PIOs) to coordinate overall information flow to the media and public.~~
- ~~• Coordinate facilitation of the media briefing schedule.~~
- ~~• Ensure news media briefings are held regularly during the course of the emergency.~~
- ~~• Oversee conduct of media briefings.~~
- ~~• Integrate ERO activities with the Incident Command Post (ICP) response activities~~
- ~~• Assist in the development of recovery plans.~~
- ~~• Conduct facility briefs and updates.~~
- ~~• Participate in the Inter-Facility Briefing to communicate and obtain event and response information.~~

~~Direct reports to the JIC Manager are the:~~

- ~~• Company Spokesperson~~
- ~~• Media Monitoring / Rumor Control Coordinator~~
- ~~• JIC Logistics Manager~~

Q. Company Spokesperson

~~The Company Spokesperson interfaces with Corporate Communications and acts as spokesperson to the media at the JIC.~~

- ~~• Establish ongoing contact with the communications personnel in the corporate office.~~
- ~~• Interface with offsite agency Public Information Officers (PIOs) to coordinate overall information flow to the media and public.~~
- ~~• Provide interviews to the media.~~
- ~~• Serve as Company Spokesperson during press conferences at the JIC.~~

- ~~Participate in the Inter-Facility Briefing to communicate and obtain event and response information.~~
- ~~Provide input for facility briefs and updates.~~

R. Media Monitoring / Rumor Control Coordinator

~~The Media Monitoring / Rumor Control Coordinator oversees the media monitoring and rumor control staffs. The Media Monitoring / Rumor Control Coordinator tasks are:~~

- ~~Supervise media monitoring and Inquiry Phone Team personnel.~~
- ~~Review Media Monitoring team information for trends, misinformation and rumors.~~
- ~~Review Phone Team information for trends, misinformation and rumors.~~
- ~~Ensure adequate staff is available to perform media monitoring and phone team functions.~~
- ~~Provide input for facility briefs and updates.~~

~~Direct reports to the Media Monitoring / Rumor Control Coordinator are the:~~

- ~~Inquiry Phone Team~~
- ~~Media Monitoring Team~~

S. JIC Logistics Manager

~~The JIC Logistics Manager oversees development of media statements and administrative support of the JIC. The JIC Logistics Manager tasks are:~~

- ~~Manage the administrative support staff.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Arrange for logistics support.~~
- ~~Oversee set up and testing of JIC equipment.~~
- ~~Maintain access control to the JIC.~~
- ~~Provide input for facility briefs and updates.~~
- ~~Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.~~
- ~~Coordinate preparation, review and distribution of Media Statements.~~
- ~~Obtain Corporate ED approval for the technical content of Media Statements.~~

~~Direct reports to the JIC EOP Logistics Manager are:~~

- ~~JIC Administrative Staff~~
- ~~Media Liaison~~
- ~~JIC Security~~
- ~~News Writer~~

- ~~JIC Technical Advisor~~

~~T. Communicators~~

~~Communicators report to the director of their respective emergency center.~~

~~Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.~~

License Amendment Request

ATTACHMENT 1B

Emergency Plan Clean Copy Pages – Calvert Cliffs Nuclear Power Plant

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1011

Affected Pages

Standardized Emergency Plan EP-AA-1000

Clean Copy

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station and Corporate Emergency Director's responsibilities and authority until relieved. The Corporate Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications.** Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

Non-delegable responsibilities include the following functions:

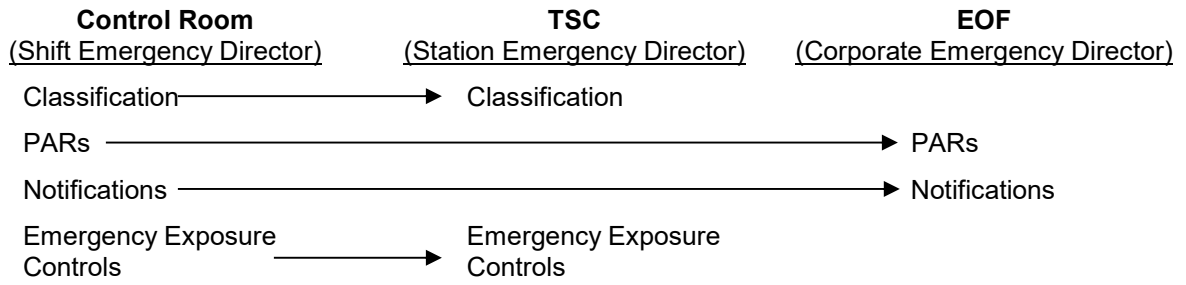
- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Overall** Command and Control is transferred to the Corporate Emergency Director.

The Station Emergency Director assumes overall authority and responsibility for **Classification and Emergency Exposure Control**. The Corporate Emergency Director (EOF) assumes the non-delegable responsibilities for PAR determination and notifications to offsite authorities.

Transition of “Non-Delegable” Responsibilities



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within [this Emergency Plan](#), outlines ERO positions required to meet minimum staffing of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are [described in Emergency Preparedness Implementing Procedures \(EPIPs\)](#). For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)
- Firefighting

- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. Other qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director.

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;

- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew.

2) Station Emergency Director

TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities

- **Activate the Facility**
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.
- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.
- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.

- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

3) ENS Communicators TSC

Responsibilities assigned to the ENS Communicators include:

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.
- Notify the NRC of changes in event classification and assist in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
- Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.

- Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

4) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.
- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.

At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

5) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

6) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director. The TSC RPM directs staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.

- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

7) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

8) Operations Support Center Director OSC

The OSC Director reports to the **Emergency Director** and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - I&C Maintenance
 - Mechanical Maintenance
 - Electrical Maintenance
 - Radiation Protection
- Coordinate with Operations in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

9) OSC Leads OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.

- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

1) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

2) Radiation Protection Manager EOF

The Radiation Protection Manager directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the **Emergency** Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the **Emergency** Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

3) Dose Assessment Coordinator EOF

The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager. Responsibilities include:

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers.
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, .
- Perform dose projections using the Dose Assessment computer models.
- Monitor meteorological and plant effluent conditions.
- Evaluate the need for administering KI to Exelon nuclear workers.
- Coordinate Field Monitoring Team activities

4) Computer Specialist EOF

The Computer Specialist reports to the Emergency Director. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.
- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

5) State/Local Communicator EOF

The State/Local Communicator reports to the Emergency Director. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.

c. Public Information Emergency Response Organization

1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

2) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.

- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.
- Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.
- Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

3) Public Information Director (PID) JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. **The Public Information Director may perform this function at remote locations.** Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- **Review** and access media coverage of the emergency event.

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained in Appendix 5, lists the key positions of the ERO. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. These positions are further described in the EPIPs.

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC Corporate Spokesperson. The ENC function may be located at either the EOF or the JIC.

The EOF is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the Shift Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:

Figure B-1a: Exelon Overall ERO Command Structure

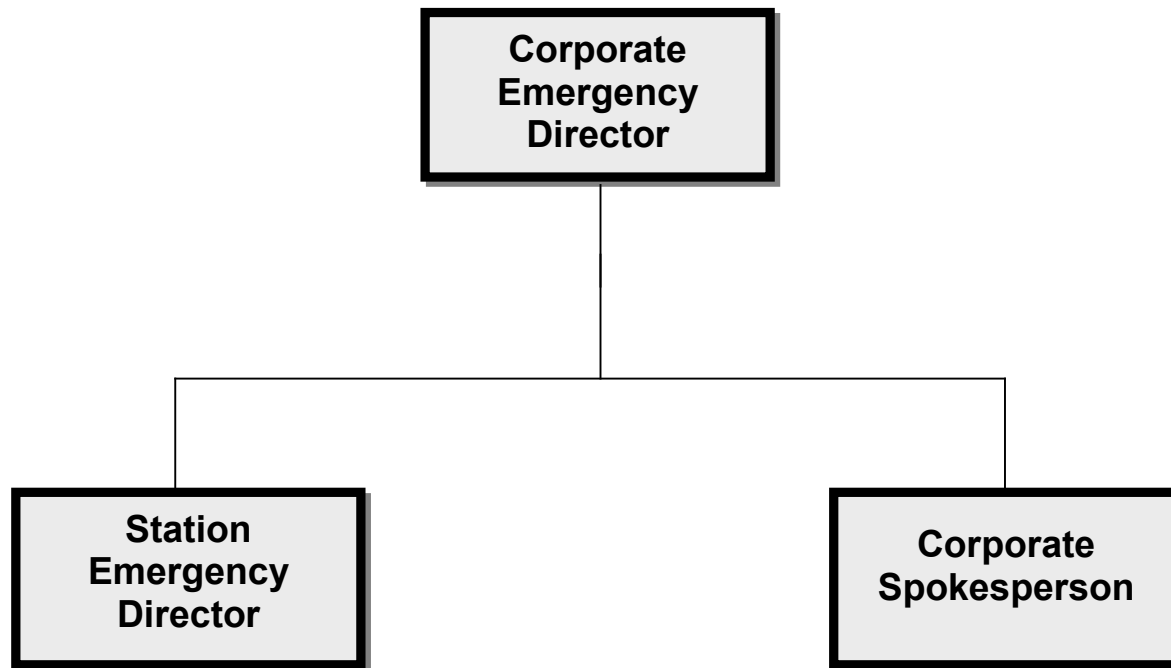
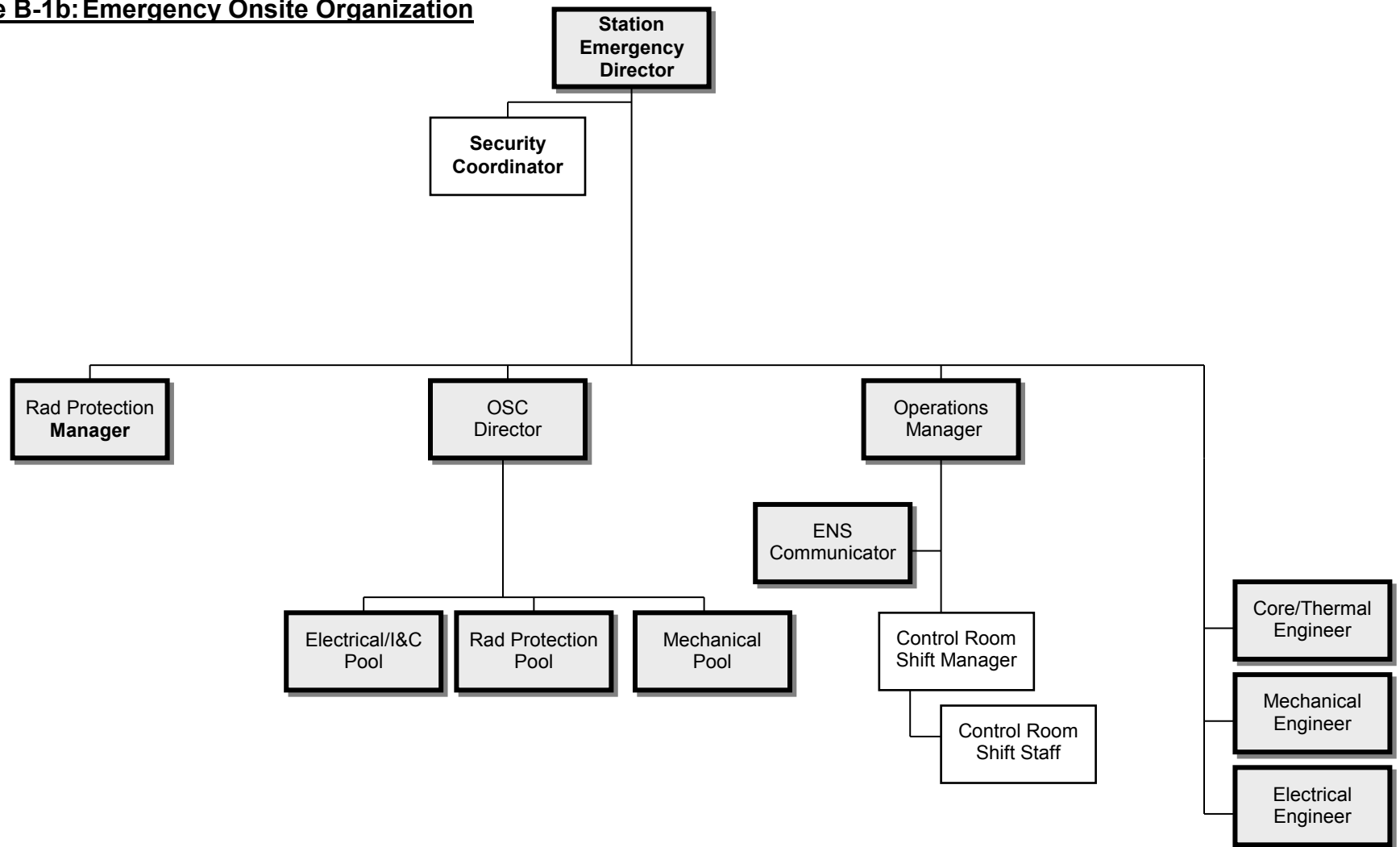


Figure B-1b: Emergency Onsite Organization



ERO response pool personnel do not include the on-shift complement.

SAMG functions requires 1 Decision-Maker and 2 Evaluators.

Figure B-1c: Emergency Offsite Organization

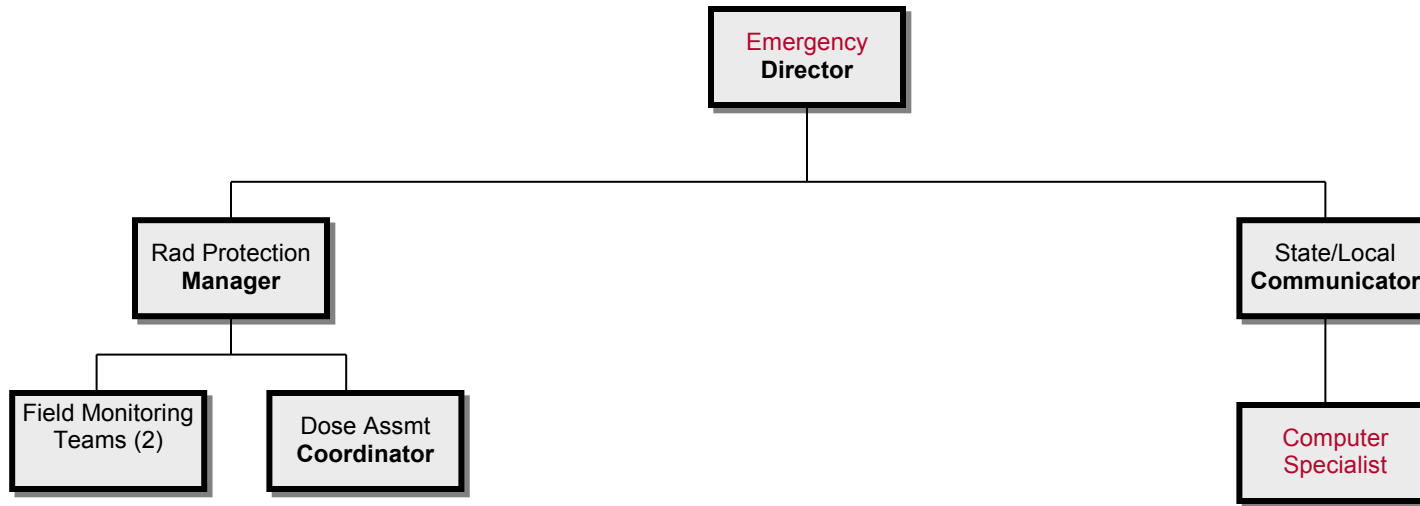
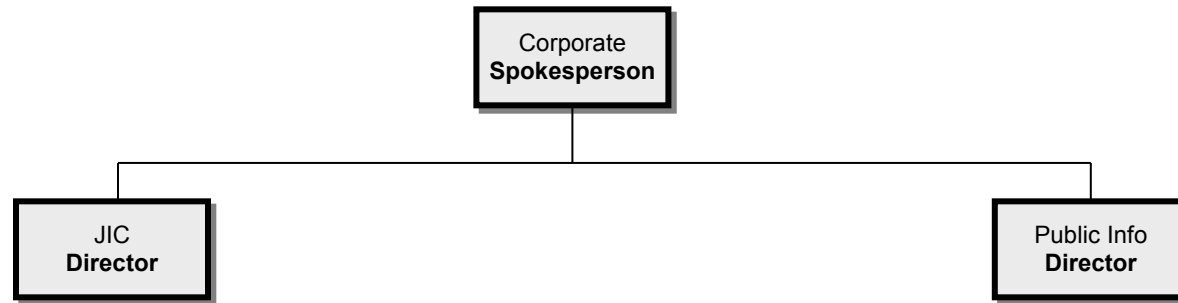


Figure B-1d: Emergency Public Information Organization



- 9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

- e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.

- f. NRC Communications (ENS)

Communications with the NRC Operations Center will be performed via the NRC ENS circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

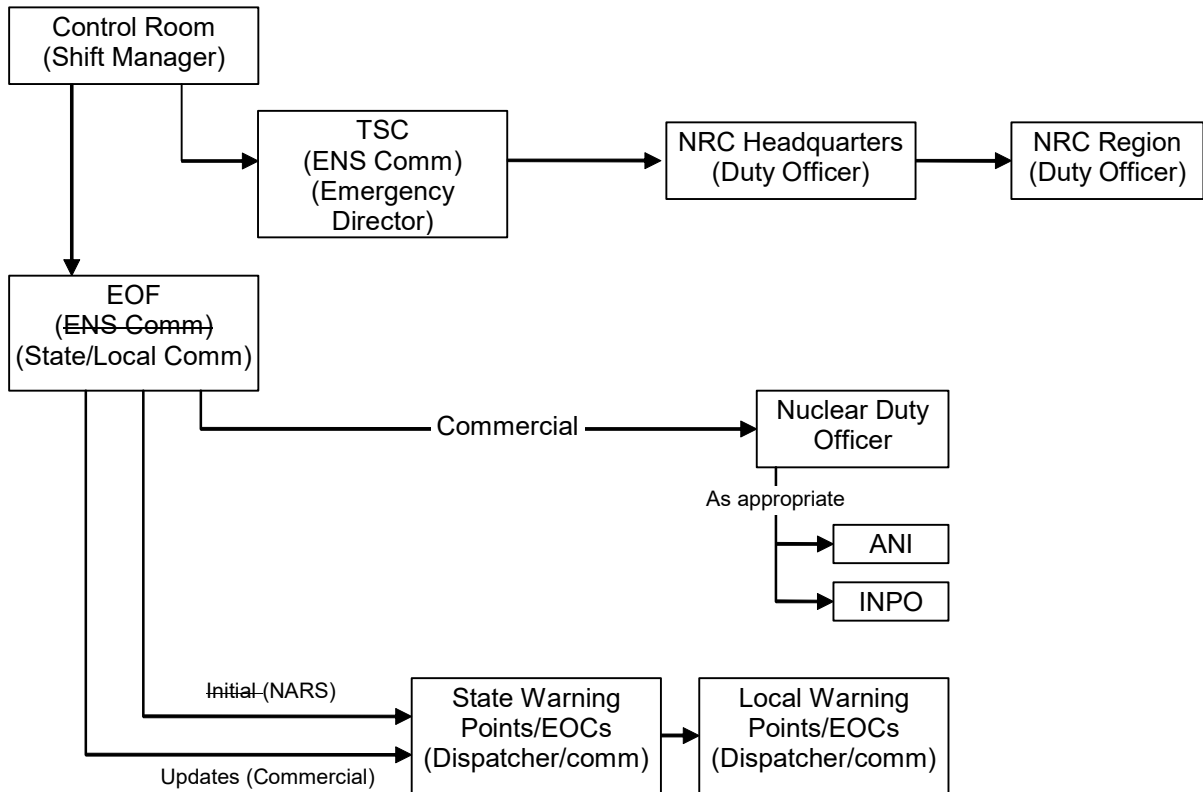
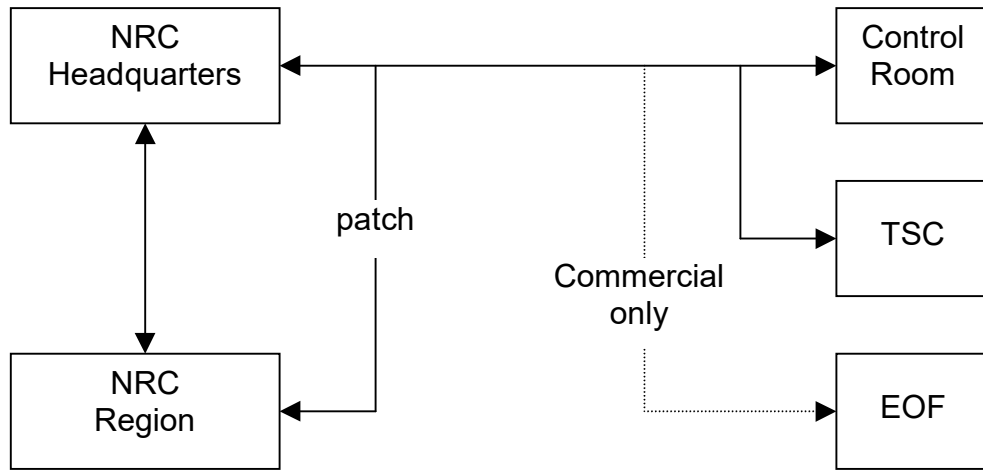


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through telephones that the media can call for information about an emergency.

b. The news media is not permitted into the EOF during an emergency.

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 **JIC Staff**. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.
- Coordination of radiological and environmental assessments.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

The National Weather Service (NWS), or regional weather forecast providers, may be contacted during severe weather periods. These providers analyze national and local weather in order to provide localized weather forecasts for the system or for the station area as appropriate.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
 - Radiation Protection
 - Maintenance (mechanical, electrical and I&C)
- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.
- Acting as the sole contact point for ensuring attendance.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift] (OSC)	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift and those responding within 60 min.] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1011

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EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR CALVERT CLIFFS STATION

**CALVERT CLIFFS NUCLEAR POWER PLANT
EMERGENCY RESPONSE PLAN**

TABLE OF CONTENTS

	PAGE
Section 1: Introduction.....	1-1
1.1 Site Description	1-1
1.2 Purpose.....	1-2
1.3 Concept.....	1-2
1.4 Emergency Response Documents	1-3
Figure 1-1, Emergency Planning Zones	1-5
Figure 1-2, 10-Mile Emergency Planning Zone Boundary	1-6
Section 2: Organizational Control of Emergencies	2-1
2.1 Operating Organization.....	2-1
2.2 Standing Review Committees.....	2-1
2.3 Emergency Organization.....	2-1
2.4 Recovery Organization	2-3
2.5 Contracted Services	2-5
2.6 Local Services	2-6
2.7 Participating Governmental Agencies.....	2-6
Figure 2-1, Center Interfaces: Unusual Event and Alert.....	2-21
Figure 2-2, Center Interfaces: Site Area and General Emergency.....	2-22
Section 3: Classification of Emergencies	
3.1 Classification System.....	3-1
3.2 Unusual Event	3-1
3.3 Alert	3-2
3.4 Site Area Emergency.....	3-2
3.5 General Emergency.....	3-3
Section 4: Emergency Measures.....	4-1
4.1 Recognition and Classification	4-1
4.2 Notification.....	4-2
4.3 Augmentation	4-2
4.4 Accident Assessment.....	4-3
4.5 Repair and Mitigative Action.....	4-4
4.6 Protective Actions	4-4
4.7 Exposure Control	4-4
4.8 Contamination Control.....	4-5
4.9 Personnel Emergencies	4-5
Figure 4-1, Off-Normal Condition Response Sequence	4-6
Figure 4-2, Off-Site Agency Notification.....	4-7

Section 2: Organizational Control of Emergencies

The Exelon Emergency Response Organization (ERO) at Calvert Cliffs, its key positions and associated responsibilities are described in the Exelon Nuclear Standardized Radiological Emergency Plan (EP-AA-1000). It outlines the staffing requirements which provide initial emergency response actions and provisions for timely augmentation of on-shift personnel when required. The section below describes interfaces among emergency response personnel and specifies the offsite support available to respond to the nuclear generating stations.

2.1 Operating Organization

The first line of control of any emergency at Calvert Cliffs Nuclear Power Plant lies with the normal shift personnel on duty at such time as an emergency situation should occur. Assistance is available within one hour from other plant staff and operating personnel. Additional assistance is available from Exelon Generation, Federal, and State agencies and contractor personnel. Corporate Headquarters supports the ERO in the following functional areas: Corporate Communications is able to field rumor control issues while providing feedback to the Joint Information Center representatives. Additionally, Headquarters aligned personnel assigned to CCNPP are considered available for assignment to the ERO if their duties do not include extended travel and they have the approval of their corporate sponsor. Emergency positions are staffed so relations to responsibilities and duties of the normal staff complement are essentially unchanged. Operating Organization personnel resources provide the means for continuous (24-hour) plant operations, including manning of communications links.

2.2 Standing Review Committees

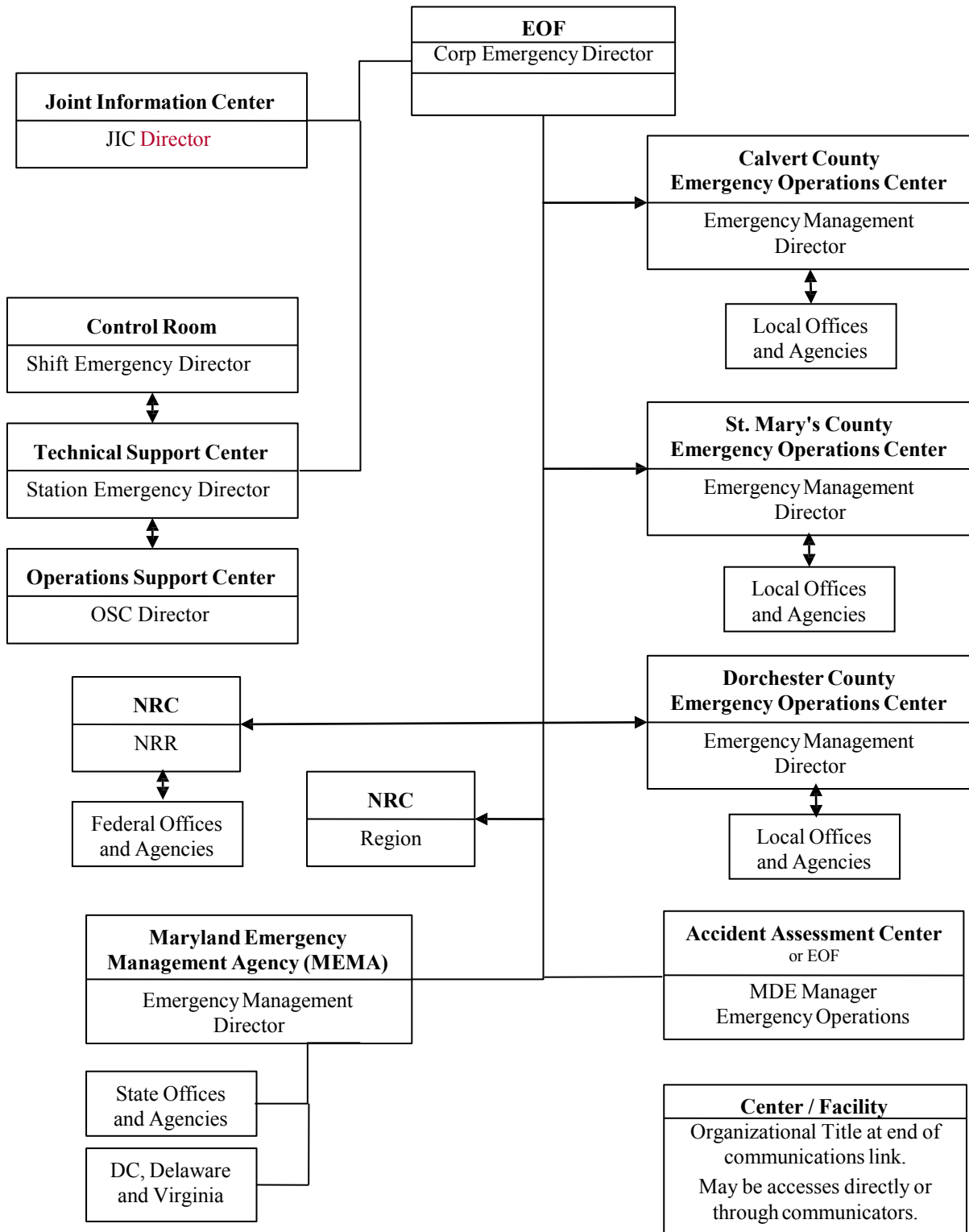
Two committees are established in the Updated Final Safety Analysis Report, Section 12.5, Review and Audit of Operations, to ensure adequate review of matters pertaining to nuclear plant safety and integrity. The Plant Operations Review Committee functions in an advisory capacity to the Plant General Manager-Calvert Cliffs Nuclear Power Plant. The Nuclear Safety Review Board is an independent review organization functioning in an advisory capacity to the Chief Nuclear Officer. Membership and specific responsibilities of the Plant Operations Review Committee and Nuclear Safety Review Board are detailed in Fleet procedures.

2.3 Emergency Organization

Refer to EP-AA-1000, Exelon Nuclear Standardized Radiological Emergency Plan for a description of the Emergency Organization.

2.4 Recovery Organization

FIGURE 2-2
Center Interfaces: Alert, Site Area and General
Emergencies



- e) Released material chemical and physical form including relative quantities and concentrations of noble gases, iodines, and particulates.
 - f) Meteorological conditions (wind speed, direction-to and from), stability indicator, precipitation.
 - g) Actual or projected site boundary dose rate; site boundary projected integrated dose.
 - h) Projected dose rates and integrated dose at projected peak and at 2, 5, and 10 miles including sector(s) affected.
 - i) In-plant, on-site, off-site surface radioactive contamination estimate.
 - j) Facility response actions in progress.
 - k) Recommended emergency actions, protective measures, and recommendations set forth in Environmental Protection Agency's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-400-R-92-001), Tables 2-1 and 2-2.
 - l) Support requests.
 - m) Incident prognosis (worsening/terminating).
3. Initial and follow-up messages provide supporting information for messages developed by State and local agencies for the public. Initial and follow-up messages are consistent with the classification scheme addressed in the Emergency Plan Implementation Procedures.
4. Off-site authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone receive initial (prompt notification) and follow-up messages directly. Provision exists to make Initial Notifications within 15 minutes of emergency declaration.

4.2.4 Prompt Public Notification

Prompt public notification using sirens or backup methods such as mass communications or route alerting that facilitates public awareness to turn on their televisions or radios and listen for information or instructions broadcast by state or local government authorities on the Emergency Alert System.

A physical means has been established and demonstrated to exist for providing prompt public notification within the plume exposure pathway Emergency Planning Zone. The Public Alert and Notification System Design Report is described in detail in the upgraded Public Alert and Notification System for Calvert Cliffs Nuclear Power Plant and subsequent correspondence with the Federal Emergency Management Agency.

4.3 **Augmentation**

4.3.1 Staffing

EP-AA-1000, Appendix 5, Table 5-1, **Emergency Response Organization (ERO) Staffing and Augmentation Plan** outlines ERO positions required to meet minimum staffing of the on-shift complement at an Alert or higher declaration. Minimum

staffing is to occur **as stated on Table 5-1** (within approximately 60 minutes of an Alert or higher classification **for most positions**) with the exception of the Joint Information Center (JIC) which will achieve minimum staffing within approximately **90** minutes of event declaration.

4.3.2 Activation

It is the goal to activate the ERO facilities within 15 minutes of achieving minimum staffing. The facility can be declared activated when the following conditions are met:

1. Minimum staffing has been achieved.
2. Personnel are ready to perform their function.
3. Personnel have been briefed on the situation.

4.4 Accident Assessment

Accident assessment consists of a variety of actions taken to determine the nature, effects, and severity of an accident and includes evaluation of reactor operator status reports, damage assessment reports, meteorological observations, seismic observations, fire reports, radiological dose projections, in-plant radiological monitoring, off-site (environmental) radiological monitoring, etc.

Emergency Plan Implementation Procedures provide methods and techniques for:

A. Determining radioactive material release source term.

Example: Relationship between Containment radiation monitor reading and radioactive material available for release from Containment.

B. Determining radioactive material release based on plant system parameters and effluent monitors (graphic recorders and the plant computer provide records to back calculate total amounts of plant released radioactivity).

C. Establishing the relationship between effluent monitor readings and on-site/off-site exposure and contamination for various meteorological conditions.

D. Determining release rate/projected dose if assessment instrumentation is off-scale or inoperable.

E. Rapid assessment and chemical sampling and analysis of magnitude and location of radiological hazards (actual or potential) through liquid or gaseous release pathways.

F. Relating measured parameters (e.g., Containment levels, water and air activity levels) to dose rates for key isotopes (i.e., NUREG-0654, Table 3, Page 18) and gross radioactivity measurements. Provisions are made for estimating integrated dose from projected and actual dose rates and for comparing these estimates with protective action guides.

G. Periodically estimating total population exposure.

H. Relaxing protective measures to allow reentry into an evacuated area and for return of areas to normal use. This condition includes provision for informing

the response organizations that a recovery operation is being initiated and of any changes in the organization structure that may occur.

4.5 **Repair and Mitigative Action**

Those emergency measures taken to lessen or terminate an emergency situation at or near the source of the problem includes measures taken to prevent an uncontrolled release of radioactive material, or to reduce the magnitude of a release. Mitigative action includes equipment repair or shutdown, installation of emergency structures, firefighting, and damage control.

4.6 **Protective Actions**

4.6.1 **Accountability**

Emergency Plan Implementation Procedures provide the capability to account for all individuals in the Protected Area during a Site Area Emergency or General Emergency, to ascertain the names of missing individuals within 30 minutes of and Alert (for Security Event) Site Area Emergency or General Emergency declaration, and to account for all Protected Area individuals continuously thereafter.

4.6.2 **Evacuation**

1. Evacuation routes for on-site individuals allow access to Maryland Route 2/4 via the plant access road and Camp Canoy Road (through Camp Canoy facility). Transportation is by personal vehicle.

Two roads allow alternative evacuation routes for inclement weather, high traffic density, and specific radiological conditions.

2. Emergency Plan Implementation Procedures provide for on-site, non-essential personnel evacuation during an Alert (for Security Event), Site Area Emergency or General Emergency.

4.6.3 **Off-Site Recommendations**

1. Guidelines for the choice of protective actions during an emergency, consistent with Federal Guidance, are provided in the Emergency Plan Implementation Procedures. The effectiveness of evacuation and protection afforded in residential units and other shelters is assumed to be that which is described in Federal Guidance.

4.7 **Exposure Control**

- 4.7.1 Emergency Plan Implementation Procedures and Radiation Protection Procedures provide an on-site radiation protection program including exposure guidelines implementation methods for use during emergencies. Provisions are made for distribution of dosimeters (both direct reading and permanent record devices); ensuring dosimeters are read at appropriate frequencies; maintaining dose records for emergency workers.

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. The Joint Information Center is located about twelve miles from the site, in Calvert Industrial Park, Skipjack Road at Hallowing Point Road. It is a well-engineered structure for design life of Calvert Cliffs Nuclear Power Plant.
4. The Joint Information Center will be activated for an **Alert**, 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

APPENDIX 1
NUREG-0654 Evaluation Criteria Cross Reference

<u>NUREG-0654 Reference</u>	<u>Criteria</u>	<u>Plan Reference Section No.</u>
A1 – Item a	Identification of Response Organizations	1.2, 1.3, 2.6, 2.7
A1 – Item b	Organization of Concept of Operations	1.3, 2.1, 2.3- 2.7
A1 – Item c	Organizational Inter-Relationships - Block Diagrams	Fig. 2-3 - Fig. 2-6
A1 – Item d	Designation of Organization Director	2.3, 2.4
A1 – Item e	24 Hour Response/Communication	2.1, 4.2, Fig. 4-2
A2 – Item a	Organization Authority	N/A (not required in Licensee Plans)
A2 – Item b	Legal Basis for Organization Authority	N/A (not required in Licensee Plans)
A3	Formal Intra-government/Organization Agreements	2.5 - 2.7, App. 2
A4	Designated Authority for Organization Resource Continuity	EP-AA-1000, Section B
B1	Provision for Onsite Shift Emergency Organization	EP-AA-1000, Section B
B2	Designation of Onsite Emergency Director	EP-AA-1000, Section B
B3	Line of Succession for the Emergency Director	EP-AA-1000, Section B
B4	Functional Responsibilities of the Emergency Director	EP-AA-1000, Section B
B5	Assignment of On-Site Emergency Personnel	EP-AA-1000, Section B
B6	Onsite Emergency Organization Interface	Sect. 2, EP-AA-1000, Section B
B7	Designation of Minimum Staffing Requirements for Plant Emergencies	EP-AA-1000, Section B
B7 – Item a	Logistics Support for Emergency Personnel	App. 4
B7 – Item b	Technical Support for Planning/Re-entry/Recovery Operations	2.4, Fig. 2.3
B7 – Item c	Management Level Interface with Governmental Authorities	2.3.2, 2.4.1
B7 – Item d	Information/Press Releases	App. 4
B8	Contractor & Private Organization to provide assistance	2.5, 2.6
B9	Designation/Responsibility/Limitations of Local Agency	2.5 - 2.7

License Amendment Request

ATTACHMENT 1C

**Assessment of Calvert Cliffs ERO Minimum Staff and
Full-Augmented Staff Positions Removed**

License Amendment Request

Attachment 1C

**Assessment of Calvert Cliffs ERO Minimum Staff and
Full-Augmented Staff Positions Removed**

1.0 SUMMARY DESCRIPTION

This enclosure provides a summary Table of the Emergency Response Organization (ERO) positions that are being removed from the Emergency Plan along with an assessment of their respective Emergency Plan tasks as defined in the Emergency Plan. The duties of the ERO positions being relocated to Emergency Plan Implementing Procedures (EPIPs) were reviewed against the Alternative Guidance for Licensee Emergency Response Organizations finalized in letter from the NRC to NEI, June 12, 2018, the NUREG-0654 guidance (Revision 1), and the station Emergency Plan. Each relocated ERO position was analyzed to ensure key tasks of the position are retained within the Emergency Plan and performed by Minimum Staff ERO members. The tasks were also evaluated against the NUREG-0654 guidance to ensure regulatory requirements were maintained.

The Table provides a description of each Full-Augmentation position as well as the responsibilities assigned under the station Emergency Plan. Each responsibility is assessed against the key Emergency Plan functions to ensure the Emergency Plan can still be implemented with the relocation of the responsibility to an EPIP. In some cases, a responsibility is identified as needed to support an Emergency Plan Function and subsequently reassigned to a Minimum Staff position.

The Full-Augmented Staff will continue to be available and respond to emergency conditions. The Full-Augmented Staff continue to be notified to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). They will be notified at the same time as the Minimum Staff personnel; however, the Full-Augmentation ERO response is not required to activate the ERF. Additionally, some ERO Full-Augmentation positions are designated as "as needed." These positions are trained and qualified to perform their Emergency Plan function; however, the position will be notified to report to their ERF only if conditions warrant, as determined by the Emergency Director or designee.

The Table is arranged in columns as described below:

Facility: This column identifies the affected Emergency Response Facility

MCR – Main Control Room

TSC – Tech Support Center

OSC – Operations Support Center

EOF – Emergency Operations Facility

JIC – Joint Information Center

Current ERO Position: This column identifies the ERO position title. Each ERO position is also identified with a unique abbreviation for reference throughout the table. For example, MDCC is for Main Control Room Damage Control Communicator.

Current E-Plan Minimum Staff: This column identifies those positions that are currently considered Minimum Staff in the current approved Emergency Plan, but are being reassigned as Full-Augmentation (i.e., Yes/No).

Tasks Defined by Station Emergency Plan: This column identifies the specific position tasks identified in the Emergency Plan and EP Implementing Procedures. Each task is identified with a unique task ID number for quick reference throughout the table.

Task Disposition (Eliminated/Reassigned To): This column identifies the disposition of those tasks assigned to a ERO position under this License Amendment Request. Each ERO task was evaluated and dispositioned as either Relocated to an EPIP or Reassigned to a Minimum Staff Position. Tasks that are reassigned designate the ERO member receiving the task.

Justification / Implementing Action: This column provides a conclusion as to why this change is acceptable. In some cases, for tasks not being reassigned, this column provides an action needed when the change is implemented.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	Technical Manager	No	Manage the activities of the TSC engineering / technical staff.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure additional personnel and/or equipment is arranged for, as necessary.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide engineering support for accident detection and assessments.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop mitigative strategies based on assessment of the event	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls)	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Identify and direct the development of emergency special procedures needed to effect long-term safe shutdown or to mitigate a release.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Accumulate, tabulate and evaluate data on plant parameters to determine the overall plant condition.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	Maintenance Manager	No	Direct the total onsite maintenance and equipment restoration effort	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Request additional equipment in order to expedite recovery and restoration	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation upon an Alert ECL.
			Ensure adequate staffing of the OSC.	Relocate to EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure additional personnel and/or equipment is arranged for, as necessary.	Relocate to EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			In coordination with the Operations Manager, determines the priority assigned to OSC activities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	TSC Director	Yes	Activate the Facility	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff Emergency Director
			Establish and maintain facility accountability	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Manage the operation of the facility.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review and ensure facility displays are maintained current.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate ERO shift relief rosters for the on-site facilities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop ERO shift relief rosters for the facility	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate integration of the NRC Site Team.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Arrange for logistics support	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure flow of information within and between the emergency response facilities.	Relocate to EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Coordinate TSC relocation.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Direct ENS Communications with NRC	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	RMS Communicator	Yes	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Computer Specialist	No	Support the setup of systems and equipment within the facility.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor facility equipment (computer related and communications) to ensure adequate operation.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Resolve any IT related malfunctions.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	TSC Operations Communicator TOC	No	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	MCR Operations Communicator	No	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Administrative staff	No	Perform administrative and logistic support functions for facility personnel.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Establish and maintain facility accountability	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Security Coordinator	No	Integrate ERO activities with the ICP response activities	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Manage the activities of the site security force.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Request and coordinate emergency activities with Local Law Enforcement Agencies (LLEAs).	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide security related communications with the NRC.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Direct accountability and search & rescue activities.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Direct site evacuation activities.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Direct site access controls activities.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate security activities between the SSS and OSC.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Determine radiation protection measures for security force personnel and law enforcement agency personnel on site.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Assistant OSC Director	Yes	The Assistant OSC Director coordinates in plant task and team development and team dispatch..	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Ops Communicator	No	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
OSC	OSC Team Tracker	No	Maintain Team Tracking Status display.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Participate with OSC team dispatch, control and tracking.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Track and maintain communications with OSC teams.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Operations Lead	No	Coordinate their teams' activities for repair and damage control (mechanical, electrical, instrument). The teams are responsible for assessing equipment damage and affecting repairs.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Admin Staff	No	Perform administrative and logistic support functions for facility	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Elec Group Lead	No	Coordinate their teams' activities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	I&C Group Lead	No	Coordinate their teams' activities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Chemistry Personnel	Yes	OSC Responder	Relocate to EP Implementing Procedure	There are no specific EP related duties for the augmented Chemistry Technician. Chem Techs will be called in as the situation requires by the OSC Director.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
OSC	Chemistry Lead	No	Coordinate their teams' activities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Tech Advisor	Yes	Monitor plant status and Control Room activities.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Track and trend critical parameters for the identification and trending of current plant status information.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	EOF Ops Communicator	No	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Logistics Manager	No	Oversee staffing of EOF and assist with staffing for other facilities	Relocate to EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop ERO shift relief rosters for the facility	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate ERO shift relief rosters for all facilities and the notification of personnel.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Manage the administrative support staff.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review and ensure facility displays are maintained current..	Relocate to EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Manage the procurement and logistical support activities for the on-site and off-site emergency response personnel and facilities.	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Communicate with the NDO to maintain communications with ANI, DOE, and INPO.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate integration of the NRC site team.	Relocate to EP Implementing Procedure	Coordination Task - The task of transferring control of the Field Monitoring Teams is unnecessary because the EOF RPM initially establishes control of the Field Monitoring Teams upon activation of the EOF.
			Monitor and maintain access controls for the facility	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Communicate with and coordinate support for ERO responders or plant personnel sent off-site to relocation areas.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	EOC Communicator	No	Monitor plant conditions and event response activities.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide information updates to and address questions and support requests from the off-site liaisons..	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Communicate actions being considered or taken by Counties and State to the EOF.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Environmental Coordinator	No	Establish and maintain contact with the Offsite Monitoring Teams.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Direct and track Offsite Monitoring Team activities	Task is currently only located in EP Implementing Procedure	Oversite Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. The responsibility for monitoring exposure continues to be with the Field Monitoring Team members. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide periodic updates to the Offsite Monitoring Teams on classification, plant conditions, release status, meteorological data, etc.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide directions to the Offsite Monitoring Team to take KI, once approved by Station Emergency Director	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Coordinate activities with the external agency field monitoring teams.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Maintain and update the radiological status displays.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Record and report field monitoring survey, sample and exposure information.	Task is currently only located in EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate the receipt, analysis, storage and transfer of field monitoring samples.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	State EOC Liaison	No	Communicate EOC / ICP actions and decisions to the EOF.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical support and information to the EOC / ICP.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	County EOC Liaison	No	Communicate EOC / ICP actions and decisions to the EOF.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical support and information to the EOC / ICP.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	EOF Director	Yes	Direct and coordinate the activation and response efforts of the EOF staff.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Emergency Director.
			Prepare State/Local notification forms and obtain Corporate ED approval to support the completion of timely offsite event notifications	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Emergency Director.
			Participate in the Inter-Facility briefing to communicate and obtain event and response information.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Dose Assessor	No	Perform dose assessment.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Dose Assessment Coordinator.
			Monitor, evaluate and communicate conditions involving any release of radioactivity.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Dose Assessment Coordinator.
			Evaluate conditions and determine recommendations for PARs.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
EOF	HPN Communicator	No	Communicators have responsibility for communications according to Emergency Plan Implementation Procedures. Communication responsibilities include initial and follow-up communications with Calvert Cliffs Nuclear Power Plant, State, local and Federal personnel; communications with regulatory agencies through the Emergency Notifications System; and communication of plant parameter status data, environmental status data, Radiological Monitoring System status data; and communications between emergency response facilities.	Relocate to EP Implementing Procedure	Communication Task - The task of notifying the Dose Assessment Coordinator or Meteorological changes is also performed by the Dose Assessment Coordinator. It is unnecessary to relocate this task to the Dose Assessment Coordinator who is already performing Dose Assessment activities.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	Clerical Staff	No	Assist with completing ERO relief shift.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assist with setting up EOF equipment in preparation for facility activation.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Perform administrative and logistic support functions for facility personnel.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Technical Advisor	Yes	Provide technical expertise to the JIC staff.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assist the News Writer with development of technically accurate media statements.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide answers to technical questions from the news media regarding the emergency situation.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Periodically monitor EOF/TSC briefings and Technical Information Line to obtain information.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical information support to the Company Spokesperson.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Monitor event information on the facility display systems.	Task is currently only located in EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Media Monitor / Rumor Control Coordinator	Yes	Supervise media monitoring and Inquiry Phone Team personnel.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review Media Monitoring team information for trends, misinformation and rumors.	Task is currently only located in EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review Phone Team information for trends, misinformation and rumors.	Task is currently only located in EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure adequate staff is available to perform media monitoring and phone team functions.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Logistics Manager JIC	Yes	Manage the administrative support staff.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Develop ERO shift relief rosters for the facility.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Arrange for logistics support.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Oversee set-up and testing of JIC equipment.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Maintain access control to the JIC.	Task is currently only located in EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates..	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.	Task is currently only located in EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate preparation, review and distribution of Media Statements.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Obtain Corporate ED approval for the technical content of Media Statements.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
JIC	JIC Security	No	Provide badging and access controls for the facility.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	News Writer	No	Prepare draft Media Statements.	Task is currently only located in EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
			Develop public information materials (bulletins, backgrounders and chronologies).	Task is currently only located in EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
JIC	Inquiry Phone Staff	No	Respond to and log phone inquiries from the media and the public.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor telephone lines for trends, misinformation and rumors.	Task is currently only located in EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
JIC	Media Monitoring Staff	No	Monitor media coverage of the event for trends.	Task is currently only located in EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff Public Information Director.
JIC	Media Liaison	No	Ensures media is informed of protocol and schedules established for media briefings.	Task is currently only located in EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate preparations for media briefings.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Calvert Cliffs ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Distribute media statements to the media in the media briefing area.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate media relations in JIC and update media between press conferences.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate special interviews and facility tours for the media.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate JIC briefing area preparation and establish briefing protocol.	Task is currently only located in EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Administrative Staff	No	Assist in badging and direction of members of the media to proper work locations.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Perform administrative and logistic support functions for facility personnel.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Distribute media materials to the press.	Task is currently only located in EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

ENCLOSURE 2

Nine Mile Point Nuclear Station – Evaluation of Proposed Changes

Attachments:

- Attachment 2A - Emergency Plan Marked-up Pages
- Attachment 2B - Emergency Plan Clean Copy Pages
- Attachment 2C - Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Enclosure 2

License Amendment Request

Nine Mile Point Nuclear Station, Units 1 and 2 Renewed Facility Operating License Nos. DPR-63 and NPF-69 NRC Docket Nos. 50-220 and 50-410

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request for Approval of Changes to Emergency Plan Staffing Requirements

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 Applicable Regulatory Requirements/Criteria
 - 4.2 Precedent
 - 4.3 No Significant Hazards Consideration
 - 4.4 Conclusions
- 5.0 ENVIRONMENTAL CONSIDERATION
- 6.0 REFERENCES

Supporting Attachments

Attachment 2A - Emergency Plan Marked-up Pages
Attachment 2B - Emergency Plan Clean Copy Pages
Attachment 2C - Assessment of ERO Minimum Staff and Full Augmented Staff Positions
Removed

1.0 SUMMARY DESCRIPTION

10 CFR 50.47(b) and 10 CFR 50, Appendix E establish emergency planning standards that require: 1) adequate staffing; 2) satisfactory performance of key functional areas and critical tasks; and 3) timely augmentation of the response capability.

Exelon Generation Company, LLC (Exelon) is requesting NRC approval of a proposed revision to the Nine Mile Point Nuclear Station (NMP) Radiological Emergency Preparedness Plan. The proposed changes would revise certain Emergency Response Organization (ERO) positions in the NMP Emergency Plan. Specifically, the proposed changes would revise certain ERO positions to align with Alternative Guidance for Licensee Emergency Response Organizations (Alternative Guidance) finalized in a letter from the NRC to NEI, June 12, 2018. The guidance will be included in Revision 2 of NUREG-0654/FEMA-REP-1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"* (referred to NUREG-0654 hereafter) when published.

The proposed changes will also relocate the identified Full Augmentation ERO specified in the Nine Mile Point Nuclear Station Emergency Plan Annex EP-AA-1013, Figure 2-1, *"Minimum Staffing Requirements for the ERO"* to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, *"Emergency plans,"* paragraph (b), 10 CFR 50 Appendix E, *"Emergency Planning and Preparedness for Production and Utilization Facilities,"* and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, *"Conditions of licenses,"* paragraph (q), *"Emergency plans,"* determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

As specified in Enclosure 4 of this submittal, Exelon has committed to conduct a confirmation Emergency Preparedness (EP) Drill at an Exelon facility with the proposed minimum staff personnel to demonstrate that sufficient staffing capabilities will remain and no loss of EP function will result due to the proposed changes in the ERO staffing.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

2.1.1 The content and format of the NMP Emergency Plan Annex EP-AA-1013, Figure 2-1, *"Minimum Staffing Requirements for the ERO,"* will be revised to align with the NRC's Alternative Guidance. This includes revisions to the EP Functions and Major Tasks, as well as the Minimum Staff assigned to these areas. The proposed changes will result in a change in some designated Minimum Staff responders and the relocation of the Full Augmentation staff from the Emergency Plan to NMP EPIPs, consistent with the NRC's Alternative Guidance.

The specific wording changes are provided in Attachments 2A and 2B of this enclosure as marked-up and clean copy Emergency Plan pages, respectively. Attachment 2C

contains a task assessment of the Minimum Staff and Full-Augmented Staff removed from the NMP Emergency Plan. Enclosure 5 of the License Amendment Request contains information related to the review of the proposed changes by the State of New York.

2.1.2 On-Shift ERO Revision Summary

The NMP on-shift staff will align with the guidance specified in NRC’s Alternative Guidance. The proposed changes to align the NMP Emergency Plan Annex EP-AA-1013, Figure 2-1 with the NRC’s Alternative Guidance for the on-shift ERO are described as follows:

- The designated number of Fire Brigade personnel will be removed and the Table will be annotated stating the Function will be controlled per the Fire Protection Plan (FPP).
- The First Aid and Rescue EP Function is removed from the Table, consistent with the NRC’s Alternative Guidance.
- The total number of on-shift RP Technicians will remain at two (2); however, the assignment to specific EP Functions and Major Tasks is revised to align with the NRC’s Alternative Guidance.

The table below identifies the current and proposed NMP on-shift ERO staffing positions for each EP Function identified in the NRC’s Alternative Guidance.

An on-shift analysis utilizing the guidance and methodology in NEI 10-05, *“Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,”* concluded that the proposed changes do not result in conflicting duties for on-shift ERO personnel. Note that the table represents the numbers for each unit. NMP maintains separate MCRs with separate operating staff (operators, communicators, STA). For RP staff, it is determined that 1 RP staff per Unit is adequate. The unaffected unit RP staff can provide support to the affected unit as needed.

EP Function (based on NRC’s Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Command and Control	(2) Shift Managers (1 per Unit)	(2) Shift Emergency Director (1 per Unit)
Communications	(2) Shift Communicator (1 per Unit)	(2) Shift Communicator (1 per Unit)
Radiation Protection	(2) RP Technician (1 per unit)	(2) RP Personnel (1 per unit)

EP Function (based on NRC's Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Supervision of RP	n/a	(1) Shift Emergency Director (per unit)
Dose Assessment Projections	n/a	(1) Shift Dose Assessor (per unit) (Collateral duty)
Emergency Classifications	n/a	(1) Emergency Classification Advisor (per unit) (Collateral Duty)
Engineering	(2) Shift Technical Advisor (STA)/Independent Assessor (IA) (Collateral Duty) (1 per unit)	(1) STA (per unit) (Collateral Duty)
Security	Per the Security Plan	Per the Security Plan
Fire Fighting/Fire Brigade	Per the Fire Protection Plan	n/a
First Aid / Rescue Operations	Trained Shift Personnel	n/a
Radiation Accident Assessment (Chemistry/Radio Chemistry)	(2) Chemistry Technician (1 per Unit)	n/a

2.1.3 Minimum Staffing

The NMP Minimum Staff ERO is revised to be consistent with the NRC's Alternative Guidance with some exceptions that include:

- No Technical Support Center (TSC) Dose Assessor. This is deemed to be acceptable because the NMP Emergency Operations Facility (EOF) is activated at a lower classification level than required by the NRC's Alternative Guidance for escalating events. The TSC Dose Assessor is not considered necessary because the NMP EOF will activate at 60 minutes of an Alert or higher Emergency Classification Level (ECL) and will include an EOF Dose Assessor as Minimum Staff.

- The on-site Field Monitoring Team will not include a driver. The on-site field monitoring task is limited to inside the Protected Area (PA) and a driver is not needed to support the survey tasks.
- The EOF Information Technology (IT) Lead (Computer Specialist) is proposed to be staffed within 90 minutes of an Alert rather than 60 minutes of a Site Area Emergency.
- The TSC does not have an IT Lead staffed at 90 minutes.
- The EOF will not staff an additional NRC Communicator at a Site Area Emergency

The following ERO positions will be added to the NMP Emergency Plan as Minimum Staff consistent with the NRC's Alternative Guidance:

- TSC Security Coordinator
- EOF Computer Specialist (staffed at 90 minutes from an Alert)
- JIC Public Information Director
- OSC RP Supervisor / Lead
- OSC Electrical Maintenance Supervisor / Lead
- OSC Mechanical Maintenance Supervisor / Lead
- OSC I&C Maintenance Supervisor / Lead

The following ERO support positions will no longer be considered Minimum Staff under the NMP Emergency Plan and will be designated as Full-Augmented Staff. The Full-Augmented ERO Staff will be managed under an EPIP consistent with the NRC's Alternative Guidance.

- TSC Director
- EOF Director
- EOF Technical Advisor
- EOF HPN Communicator
- OSC Chemistry Technician
- OSC Assistant OSC Director
- JIC Media Monitor/Rumor Control Coordinator
- JIC Logistics Manager
- JIC Technical Advisor

The following positions will be reduced in number consistent with the NRC's Alternative Guidance.

- Mechanical Maintenance Technician – reduction of one (1) position
- Electrical Maintenance Technician – reduction of one (1) position
- I&C Technician – reduction of one (1) position

- RP Personnel – reduction of one (1) position

Additional changes include:

- Three (3) RP Technicians will be changed from 60-minute responders to 90-minute responders consistent with the NRC’s Alternative Guidance.
- The (2) Offsite Monitoring Teams will be shared with the James A. FitzPatrick Nuclear station located at the same site as NMP.

The NMP minimum ERO staff positions are being revised as follows:

Current Minimum Staff Positions	Proposed Minimum Staff Positions (response times are 60 minutes unless otherwise noted)
Technical Support Center (TSC)	
Station Emergency Director	No Change
Operations Manager	Operations Manager (Emergency Classification Advisor)
ENS Communicator	No Change
Rad Protection Manager	No Change
Core Thermal/Hydraulic Engineer	No Change
Mechanical Engineer	No Change
Electrical Engineer	No Change
TSC Director	Relocated to EPIP as Full Augmentation
Emergency Operations Facility (EOF)	
Corporate Emergency Director	No Change
State / Local Communicator	No Change
Radiation Protection Manager	No Change
Dose Assessor	Renamed Dose Assessment Coordinator
N/A	Added EOF Computer Specialist @ 90 min
EOF Director	Relocated to EPIP as Full Augmentation
Technical Advisor	Relocated to EPIP as Full Augmentation
HPN Communicator	Relocated to EPIP as Full Augmentation
Joint Information Center (JIC)	
Company Spokesperson	Corporate Spokesperson (@ 90 min.)
JIC Manager	JIC Director (@ 90 Min)
N/A	Added Public Information Director (@ 90 min.)
Media Monitor / Rumor Control Coord	Relocated to EPIP as Full Augmentation
Logistics Manager JIC	Relocated to EPIP as Full Augmentation
Technical Advisor JIC	Relocated to EPIP as Full Augmentation

Operations Support Center (OSC)	
OSC Director	No Change
Offsite Monitoring Team #1 Personnel	No Change
Offsite Monitoring Team #1 Personnel	Offsite Field Team #1 Driver
Offsite Monitoring Team #2 Personnel	Offsite Field Team Personnel (@ 90 min.)
Offsite Monitoring Team #2 Personnel	Offsite Field Team Driver (@ 90 min.)
Onsite Field Team member #1 (onsite surveys)	No Change
Onsite Field Team member #2 (onsite surveys)	Deleted
RP Tech #1 (In-plant surveys)	RP Tech #1
RP Tech #2 (In-plant surveys)	RP Tech #2
RP Personnel #1 (In-Plant Protective Actions)	RP Tech #3
RP Personnel #2 (In-Plant Protective Actions)	RP Tech #4 (@ 90 min.)
RP Personnel #3 (In-Plant Protective Actions)	RP Tech #5 (@ 90 min.)
RP Personnel #4 (In-Plant Protective Actions)	RP Tech #6 (@ 90 min.)
I&C Maintenance #1	No Change
I&C Maintenance #2	Deleted
Electrical Maintenance #1	No Change
Electrical Maintenance #2	Deleted
Mechanical Maintenance #1	No Change
Mechanical Maintenance #2	Deleted
Chemistry Technician	Relocated to EPIP as Full Augmentation
Assistant OSC Director	Relocated to EPIP as Full Augmentation
N/A	Added Mech. Maint. Supv/Lead(@90 min.)
N/A	Added Rad Protection Supv/Lead (@90 min.)
N/A	Added Elec. Maint. Supv/Lead (@90 min.)
N/A	Added I&C Supv/Lead (@90 min.)

2.1.4 Full-Augmented Staff

The NMP Full-Augmented Staff will be described in the station EPIPs. The NMP Full-Augmented Staff will continue to be notified to respond at an Alert or higher ECL at the same time as the Minimum Staff personnel; however, the Full Augmentation ERO response is not required to activate the Emergency Response Facility (ERF).

Enclosure 2
License Amendment Request
Changes to Emergency Plan Staffing
NRC Docket Nos. 50-220 and 50-410
Page 8 of 71

Position	Disposition
Technical Support Center (TSC)	
Technical Manager	Position relocated to EPIP
Maintenance Manager	Position relocated to EPIP
Operations Communicator	Position relocated to EPIP
Operations Communicator (1 for each MCR)	Position relocated to EPIP
Security Coordinator	Position reclassified as Min Staff
Admin Staff (2)	Position relocated to EPIP
TSC/OSC Computer Specialist	Position relocated to EPIP
Incident Command Post Liaison (up to 3)	Position relocated to EPIP
Emergency Operations Facility (EOF)	
Logistics Manager	Position relocated to EPIP
Environmental Coordinator	Position relocated to EPIP
EOC Communicator	Position relocated to EPIP
Dose Assessor (EOF)	Position relocated to EPIP
Operations Communicator	Position relocated to EPIP
EOF/JIC Computer Specialist	Position reclassified as Min Staff
County EOC Liaison	Position relocated to EPIP
State EOC Liaison	Position relocated to EPIP
EOF Clerical/Admin Staff (2)	Position relocated to EPIP
Joint Information Center (JIC)	
Media Liaison	Position reclassified as Min Staff and renamed Public Information Director
News Writer	Position relocated to EPIP
Inquiry Phone Staff (2)	Position relocated to EPIP
Media Monitoring Team (2)	Position relocated to EPIP
Admin/Clerical Staff (2)	Position relocated to EPIP
JIC Security (access Control)	Position relocated to EPIP
Operations Support Center (OSC)	
OSC Admin Staff	Position relocated to EPIP
OSC Team Tracker	Position relocated to EPIP
Operations Communicator (OSC)	Position relocated to EPIP
Chemistry Technician	Position relocated to EPIP
Operations Lead	Position relocated to EPIP
RP Group Lead	Position reclassified as Min Staff
Electrical Maintenance Group Lead	Position reclassified as Min Staff
Mechanical Maintenance Group Lead	Position reclassified as Min Staff
I&C Group Lead	Position reclassified as Min Staff

2.2 Reason for the Proposed Changes

The NMP Emergency Plan is being revised to align with the recently issued Alternative Guidance. The revision to the NUREG-0654 guidance reflects changes to NRC regulations, guidance, and policies, as well as advances in technology and best practices that have occurred since the NUREG-0654 guidance was originally issued in November 1980.

2.3 NMP Emergency Plan Background

Nine Mile Point Nuclear Station is a nuclear power plant with two nuclear reactors located approximately five miles northeast of Oswego, New York, on the shore of Lake Ontario. The site is also occupied by the James A. FitzPatrick Nuclear Power Plant. Unit 1 went into commercial service in 1969 and Unit 2 in 1988.

The NMP Emergency Preparedness Plan consists of the Exelon Nuclear Standardized Radiological Emergency Plan (EP-AA-1000) and a Station Emergency Plan Annex (EP-AA-1013). Additionally, the program provides direction and guidance through EIPs, and associated program administrative documents. The Emergency Plan outlines the basis for response actions that would be implemented in an emergency. Planning efforts common to all Exelon nuclear stations are encompassed within the Exelon Standardized Emergency Plan. The Standardized Emergency Plan establishes the concepts, evaluation and assessment criteria, and protective actions that are necessary to limit and mitigate the consequences of potential or actual radiological emergencies.

The NMP Annex generally contains information and guidance that is unique to the station. The Annex and associated Addendums address site-specific criteria including:

- ERO Staffing
- Emergency Action Levels (EALs) located in Addendum 3 and Addendum 4 to the station Annex.
- Differences from the Standardized Emergency Plan (such as station-specific staffing commitments, unique aspects of ERO augmentation, etc.).
- Facility geography and location for a full understanding and representation of the station's emergency response capabilities.
- Plant specific facilities and equipment associated with the Emergency Preparedness Program.

- 2.3.1 Nine Mile Point Nuclear Station Emergency Response Plan. On November 13, 1980, licensees were notified that the site EP would be reviewed in accordance with 50.47(b), Appendix E, and NUREG-0654/FEMA-REP-1. Revision 1. The NMP Emergency Plan was subsequently revised to include Figure 5.3, Minimum Staffing for Emergencies. In April 1983, NMP submitted a revision 10 to the NMP Emergency Plan contained as part of the Final Safety Analysis Report to the NRC certifying compliance with the Requirements of NUREG 0654, Revision 1.

- 2.3.2 Nine Mile Point Nuclear Station Emergency Response Plan, Revision 54 – On September 25, 2007, the NRC approved a License Amendment Request to revise the NMP Emergency Response Organization (ref. TAC Nos. MD2989 and MD2990). The changes eliminated the requirement for augmentation of the on-shift emergency response organization (ERO) personnel with selected ERO staff members within 30 minutes and requires the on-shift ERO to be fully augmented within 60 minutes.
- 2.3.3 Nine Mile Point Nuclear Station Emergency Response Plan, Revision 61, In 2013, the NMP Emergency Plan was revised to implement a standard fleet Emergency Response Organization for Calvert Cliffs, Nine Mile Point, and Ginna stations under Constellation Energy. This entailed changes to position titles, changes to assigned tasks, and changes to implementing procedures to establish a mostly common ERO.
- 2.3.4 Exelon Nuclear Standardized Radiological Emergency Plan, Revision 26 – In December 2014, NMP Emergency Plan was incorporated into the Exelon Fleet Standardized Emergency Plan under EP-AA-1000. This entailed changes to position titles, and changes to implementing procedures in an effort to establish a mostly common ERO throughout the Exelon Fleet.
- 2.4 Minimum Staffing and Full Augmentation as discussed in Nine Mile Point Nuclear Station's Emergency Plan

The NMP Emergency Plan designates two (2) types of augmented ERO responders. Those designated as Minimum Staff are those key ERO personnel needed to relieve the on-shift staff of key EP functions/tasks required in response to the emergency. Those key functions and associated tasks are identified in NUREG-0654, Section II.B. Evaluation Criteria 5 of Section II.B of NUREG-0654, Revision 1, states in part:

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

Those ERO positions designated as Minimum Staffing in the NMP Emergency Plan are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO positions that are the absolute minimum needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher ECL.

... "Facility Activation" refers to the decision to consider a facility fully operational based on the minimum staffing required in ERO staffing tables contained within

the station specific Annex and the ability of facility staffing and equipment to perform its designed function(s).

The positions which are considered Full-Augmented Staff (i.e., Non-Minimum Staff) are those positions which provide support for the Minimum Staff in their response to the emergency. The Full Augmented staff are discussed in EP-AA-1013.

As described in the NMP Emergency Plan, these Full Augmentation positions consist of liaisons, coordinators, supervisors, and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the Functions/asks identified in the NRC's Alternative Guidance. The list of Full-Augmented positions and their current assigned tasks are listed in Attachment 2C.

2.5 EOF Activation as discussed in the Nine Mile Point Nuclear Station Emergency Plan

The NRC's Alternative Guidance establishes that the EOF facility activate within 60 minutes of a Site Area Emergency (SAE) or greater ECL. Exelon has elected to activate the EOF within 60 minutes of an Alert or greater ECL. By establishing the EOF at the Alert level, certain EP functions such as Dose Assessment or State/local communications can be established immediately following the Alert classification at the EOF and need not be duplicated at the TSC.

The turnover of Command and Control of EP functions will occur through a conference line between the Main Control Room (MCR), TSC, and EOF and may occur simultaneously if all facilities are available. In this manner, there will be no delay in transferring functions such as Emergency Action Level (EAL) classifications, State/local Notifications, Protective Action Recommendations (PARs), and Emergency Exposure Control from the MCR to the respective ERF (i.e., TSC or EOF).

2.6 ERO Performance Validation

As part of the implementation of these changes, a confirmation of the capabilities of the final Minimum Staff personnel will be performed through an EP drill to demonstrate that no loss of function will result due to the changes in the ERO. The State of New York is invited to participate in this EP drill. Additionally, the NRC will be invited to observe the drill.

In support of this effort, and as documented in Enclosure 4 of this submittal, Exelon makes the following commitment:

Exelon will conduct a confirmation Emergency Preparedness Drill at one of the Exelon stations to demonstrate that no loss of EP function will result due to the proposed changes in the ERO. The drill will include each of the Emergency Response Facilities described in the Emergency Plan (i.e., MCR, TSC, OSC, EOF and JIC).

This commitment shall be completed prior to the implementation of the approved license amendment.

In addition, Exelon will institute a "Minimum Staff" drill to be conducted once per drill cycle. The drill will include participation from the Minimum Staff of the Emergency Operations Facility (EOF), the Joint Information Center (JIC), the Technical Support Center (TSC), and the Operations Support Center (OSC) from one of the affected Exelon stations which have implemented the approved ERO staffing change license amendment. This will allow Exelon to periodically demonstrate that the Standardized Emergency Plan continues to effectively implement the required Emergency Preparedness functions utilizing only the Minimum Staff defined in the Emergency Plan. Since the ERO Minimum Staff is the same for each station under the Exelon Standardized Emergency Plan, it is not necessary to perform the drill for each station in a drill cycle. The stations would select one station to demonstrate the effectiveness of the minimum staff ERO. Credit for the "Minimum Staff" drill will be given to all of the affected stations. The drill will be evaluated in accordance with Exelon's Drill and Exercise Program; however, the drill may or may not be evaluated for DEP performance in accordance with NEI 99-02, "Regulatory Assessment Performance Indicator Guideline."

2.7 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, "*License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation*," states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

...an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an emergency planning function.

In conjunction with this License Amendment Request, NMP performed an OSA per 10 CFR 50, Appendix E, Section IV.A.9. The results are used to support the conclusions made in this License Amendment Request for on-shift staffing; however, Exelon understands that the OSA comprises a select set of identified scenarios and should not be used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Support

The following section discusses technical changes in plant systems, procedures, EP equipment/programs and training, which have been completed to better support ERO functions, ease Operator burden and improve Augmented Staff efficiency. The following discussion describes the improvements implemented since the last revision of the NUREG-0654 staffing guidance.

3.1.1 Plant Process Computer

The Plant Process Computer (PPC) system provides for the Safety Parameter Display System (SPDS)) functions discussed below as well as data collection and processing, accounting, alarming and logging functions. An auxiliary function of the PPC is to transmit plant data to remote locations, including the TSC and the EOF.

The PPC and the SPDS provide a concise display of critical plant variables to the Main Control Room (MCR) personnel to aid them in rapidly and reliably determining the safety status of the plant. The PMS and SPDS are operated during normal plant operations, as well as during abnormal and emergency conditions. The principal purpose and function is to aid the MCR personnel during abnormal and emergency conditions in determining the safety status of the plant.

Parameters displayed by the PPC and SPDS are the quantitative and qualitative measures to indicate the accomplishment or maintenance of critical safety functions. Information needed to assess the status of the plant safety parameters is obtained by the measurement of key plant variables. The safety parameters utilized to assess the maintenance or accomplishment of the critical safety functions as required by NUREG-0737, Supplement 1, "Clarification of TMI Action Plan Requirements: Requirements for Emergency Response Capability," Section 4 are:

1. Reactivity control
2. Reactor core cooling and heat removal
3. Reactor coolant system integrity
4. Containment conditions
5. Radiation control

In general, the ranges of parameters monitored by the PPC and SPDS are identical to those ranges monitored by existing MCR instrumentation. Ranges displayed by the PPC/SPDS are adequate to cover plant responses analyzed in Updated Final Safety Analysis Report (UFSAR) Chapter 15, "Accident Analysis."

Benefits of the current level of computer capabilities include:

- Improved plant monitoring capability for emergency functions.

- Real-time plant data available through graphical displays.
- PPC PI functions available to any desktop computer through the plant's Emergency Response Facilities.
- Programming capability for automated response such as indication of critical parameter alarms.
- Easier interface when switching between graphical displays.

The PPC system replaced multiple older and obsolete systems with a single, microcomputer-based operating platform incorporating the PPC and the SPDS as well as the following:

- Process Computer System
- Meteorological Data Acquisition System
- Sequence of Events Recorder (SER)
- Radiation monitoring

By consolidating all of these systems onto a single platform, MCR personnel can quickly monitor all critical plant parameters from a single workstation. The following are some of the benefits of PPC:

- The Shift Manager has improved plant monitoring capability to support Emergency Director (ED) function.
- Workstations have the capability of being programmed for automated response (such as automatically indicating a critical parameter during events that may challenge that parameter).
- Data manipulation functions, such as plotting information graphically or recovering historical data, require fewer key strokes and are more easily performed.
- The SER function has become a "real-time" user tool by making data immediately available rather than only being available via printer after the event.
- Much of the PPC functionality can be made available to any desktop computer through the plant's site-wide intranet.
- The increased capabilities of the PPC have enhanced timeliness of monitoring and assessing plant conditions.

NMP also utilizes a Digital Plant Viewer (DPV) system that permits personnel to view conditions in the plant where cameras are installed live-time prior to entry. The DPV also allows personnel to access live-time dose rate data in areas with installed Area Radiation Monitors (ARM). No RP Technician support is required to use DPV.

In aggregate, these improvements support the proposed change in ERO staffing by ensuring that major functions and tasks are completed more easily with less burdens on the MCR staff.

3.1.2 Dose Assessment

Radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. At the time of the startup of Unit 1, procedures describing methods for manually calculating offsite doses were provided in Emergency Plan Implementing procedures. The methods related various measured environmental media activity levels to dose rates for key isotopes and gross radioactivity measurements. The methods incorporate constants which simplified and sped up calculations. In 1993, NMP incorporated a computer-based method for Dose Assessment. The method consisted of a primary computerized meteorological/dose assessment computer program called EDAMS (Emergency Dose Assessment and Modeling System). This program included an enhanced Class A computer model that accounted for site specific spacial and temporal variations in meteorological and atmospheric conditions, including lake breeze/on-shore flow effects and ground or elevated releases.

In January 2015, EDAMS was replaced by Unified Rascal Interface (URI), a Visual Basic.net program. URI is a more efficient program utilizing menus and toolbars with the majority of inputs on a single screen making the program more user friendly. The plant display systems have improved over the years allowing access to more data points that are needed within dose assessment. Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. NMP has an individual plant data screen dedicated to the needs of dose assessment inputs.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computing power of modern computer processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Automated Call-Out Systems

Enhancements in automated call-out and paging systems have resulted in streamlined processes for activation of the ERO. The ERO activation can occur through a Web based or phone-based system to initiates rapid notification of ERO members in lieu of individual calls to fill the individual ERO positions included in the current Emergency Plan for NMP. The system includes a primary activation system as well as back-up capability to ensure uninterrupted operation.

3.1.4 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since the original Emergency Plan approval, EOPs have been improved through industry initiatives. EOPs generally use a symptom-based approach that demands less

assessment and interpretation of plant conditions by the crew. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the PPC. The PPC system is capable of graphically displaying plant conditions to assist in EOP execution.

Abnormal Operating Procedures (AOPs) also contain directional steps for when a review of the classification procedure is required to determine potential classifiable conditions. This prompts the user to identify applicable EALs.

b. Emergency Action Levels (EALs)

In 2013, NMP updated the EAL classification methodology to that published in NEI 99-01, Revision 5, "*Methodology for Development of Emergency Action Levels* ." The NMP EALs incorporate the new guidance that has simplified the classification process, including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.5 Training

a. Operations Training

Training is used to strategically drive improved performance at NMP. Since NRC approval of the NMP Emergency Plan, the Systematic Approach to Training (SAT) has resulted in developing a task list for Operations personnel. The SAT process ensures training is conducted to industry-accepted standards and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

A dynamic simulator is routinely used during Operations training. "As found" simulator evaluations that include emergency response scenarios are part of the requalification segment. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During the simulator evaluated sessions the MCR staff is taken from normal operations to accident conditions which require evaluation against Emergency Action Levels and may result in the declaration up to a General Emergency (GE). The Operations crew performs critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the MCR staff to perform these functions while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification Training (LORT) Program includes licensed Operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, "*Operations Department Guidance for Conducting Crew Performance Evaluations*."

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the additional challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in the crew performance evaluations. Representing the event as realistically as possible, which includes the additional challenges of Emergency Plan responsibilities, helps promote the situational awareness necessary during a real event.

b. Shift Technical Advisor (STA) Training

The STA/IA was originally trained as an advisor to the operating shift per NUREG-0737, *"Clarification of TMI Action Plan Requirements."* In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, *"Guidelines for the Training and Qualification of the Shift Technical Advisor."*

The ACAD 14-002 guidelines describe the role of the STA/IA. The STA/IA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. They also contribute to operations during normal plant conditions. By routine monitoring of equipment and plant operations, the STA/IA can focus on preventative actions in order to mitigate the consequences of an accident.

3.1.6 Radiation Protection Improvements

There have been many improvements in RP since the NMP staffing was established under NUREG-0654, Revision 1 guidance.

The following provides a summation of the technology/tools associated with the in-plant protective actions:

a. Access Control

- Access to the Radiologically Controlled Area (RCA) is controlled electronically.

b. Personnel monitoring

- Personnel are issued DLRs that are continuously worn for constant monitoring. No RPT support is needed for issuance of DLRs to on-shift emergency workers.
- Secondary dosimeters are issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.
- Automated whole-body monitors provide contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RP Technician interface.

- In circumstances when the automated whole-body monitors are not available, hand held friskers are used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RP Technician interface.

c. Dosimetry

- Personnel are issued DLRs that are continuously worn for constant monitoring.
- Secondary dosimeters are self-issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.
- If a DLR is lost or damaged under emergency conditions, additional DLRs are staged for emergency issuance.
- If an electronic dosimeter is lost or damaged, additional electronic dosimeters are available.

d. Area Radiation Monitors (ARMs) are also used and reviewed prior to dispatch of personnel into the plant. NMP has multiple ARMs throughout the plant.

Some RP Technician support functions associated with in-plant protective actions such as access control, personnel monitoring, dose assessment, and dosimetry now require less dedicated support time since they are covered by plant process enhancements (newer technology/tools).

These technology/tools use available equipment such as portal monitors, self-alarming dosimeters, and an automated access control point.

All onsite ERO members expected to be dispatched into the plant for evaluation, operations, or repair activities are Radiation Worker qualified and understand and are trained on how to use the available tools.

3.1.7 Improvements Summary

The improvements to staffing, equipment, procedures, and training that have occurred since initial approval of the NMP Emergency Plan have resulted in a significant increase in the on-shift capabilities. Based on these improvements, it is concluded that there would be no significant degradation or loss of any functional task as a result of the proposed changes in ERO staffing.

3.2 Functional Analysis

This analysis evaluates the impact of implementing the changes in staffing on the ERO ability to perform the major tasks for the major functional areas of the NMP Emergency Plan. The analysis demonstrates that no degradation or loss of function would occur as a result of the change.

3.2.1 EP Function: Command and Control (formerly Emergency Direction and Control)
 The Command and Control function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide overall ERO command and control, until relieved.
- Approve EAL classification and/ or Protective Action Recommendations (PARs), until relieved.
- Authorize personnel dose extensions, until relieved

This function is important for effective emergency response because adequate Command and Control enables the NMP ERO to effectively develop priorities for response planning and corrective action(s) and to provide a unified approach to the event response by providing a single individual with overall command and control authority. The function is staffed and maintained at all times and is assigned to the Operations Shift Manager (SM). The augmentation (relief) of this position is intended to relieve the SM of EP functions so that the SM can focus on the event response from an operations perspective. This is available within 60 minutes of an Alert ECL declaration, or greater, and is a position staffed by the TSC ED. In addition, the EOF Corporate ED will take responsibility for those EP functions associated with PARs following activation of the EOF, also at the Alert or greater ECL.

- a. On-Shift Staff – The table below identifies the current, proposed, and NRC's Alternative Guidance for this EP Function and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Command and Control – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (2) Shift Managers (1 per Unit) 	<ul style="list-style-type: none"> • (2) Shift Emergency Directors (1 per Unit) 	<ul style="list-style-type: none"> • Operations Shift Manager

Emergency Plan Change Assessment

The NMP existing on-shift staffing table currently aligns with the NRC’s Alternative Guidance.

NRC’s Alternative Guidance Alignment

NMP will maintain the existing title for this EP Function. The NRC’s Alternative Guidance Operations Shift Manager will be titled Shift Emergency Director at NMP.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Command and Control – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC Station Emergency Director • (1) EOF Corporate Emergency Director 	<ul style="list-style-type: none"> • (1) TSC Station Emergency Director (at Alert or higher) • (1) EOF Corporate Emergency Director (at Alert or higher) 	<ul style="list-style-type: none"> • (1) TSC Emergency Coordinator (at Alert or higher) • (1) EOF Emergency Director (at SAE or higher)

The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. There is one difference between the NMP proposed Minimum Staff and the NRC’s Alternative Guidance. Specifically, NMP will staff the EOF ED within 60 minutes of an Alert or higher ECL, while the NUREG-0654 guidance staffs the position within 60 minutes of a SAE or higher ECL. This difference expands the NMP emergency response at the Alert ECL and will ensure that the EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE ECL.

3.2.2 EP Function: Communications

The Communications function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Communicate EAL classifications and PARs to Offsite Response Organizations (OROs), including the NRC, until relieved.

This function is important for effective emergency response. The function ensures adequate communication onsite and offsite to successfully implement the emergency plan. NMP maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty and has been assessed through an on-shift staffing analysis, via 10 CFR 50, Appendix E, Section

IV.A.9, to ensure that this EP Function can be performed when needed without any additional competing priorities.

The augmentation of this position is available within 60 minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function consists of two (2) ERO members to fulfill the communications needs (i.e., one (1) for the NRC and one (1) for State/local notification and status updates). Under the NMP Emergency Plan, additional Communicators can be called upon as needed, and at the discretion of the ED.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (2) Shift Communicator (1 per Unit) 	<ul style="list-style-type: none"> • (2) Shift Communicator (1 per Unit) 	<ul style="list-style-type: none"> • (1) Communicator¹ <p>¹ Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

There are no changes between the current NMP Station Emergency Plan staffing and the proposed changes to the Emergency Plan for the On-shift Communications function.

NRC’s Alternative Guidance Alignment

NMP will keep the Shift Communication function consistent with the NRC’s Alternative Guidance. The Shift Communicator will perform NRC and State/local communications as needed until relieved.

A difference identified related to the NMP implementation of the NRC’s Alternative Guidance is the absence of the note (1) regarding collateral duties. The notes states: *"Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time,"* and is not included in the NMP Emergency Plan. This note is not necessary because no collateral duties are assigned to the on-shift Communicator under the NMP Emergency Plan.

There are no other deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – Minimum Staff		
Current Emergency Plan, NMP Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local communicator • (1) EOF HPN Communicator • (1) TSC Director • (1) EOF Director 	<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local Communicator <p>(additional Communicators will be staffed as needed)</p>	<ul style="list-style-type: none"> • (1) TSC Communicator (NRC) • (1) TSC Communicator (ORO) • (1) EOF Communicator @ SAE ECL or greater <p>As needed (one communicator staffed at TSC for NRC communications if needed)</p>

Emergency Plan Change Assessment

NMP is maintaining the Minimum Staff TSC ENS and EOF State/local Communicator as currently described in the NMP Emergency Plan with no proposed changes to those positions. Additional Communicators will be staffed at the EOF or TSC as needed.

The following positions, identified as minimum staff under the current NMP Emergency Plan, are being re-categorized as Full-Augmented staff and will continue to be managed within an EPIP.

EOF HPN Communicator - The EOF HPN Communicator identified in the current Emergency Plan is removed and relocated to an EPIP. Exelon is adding a statement to the staffing Table that additional communicators will be staffed as needed. This ensures that if required, additional NRC communicators can be augmented as necessary to support communications between Exelon and the NRC. Specific responsibilities include:

- *Provide event data and plant information to the NRC via the HPN.*
- *Monitor assigned communication line and provide key information to facility staff.*

TSC Director – The TSC Director is identified as Minimum Staff in the EP-AA-1013, Figure 2-1, Minimum Staffing Requirements for the ERO. The TSC Director is reclassified as Full Augmentation. The TSC Director responsibilities generally do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The TSC Director performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific responsibilities include:

- *Activate the Facility (reassigned to Station Emergency Director).*
- *Establish and maintain facility accountability.*
- *Manage the operation of the facility.*
- *Review and ensure facility displays are maintained current.*
- *Coordinate ERO shift relief rosters for the onsite facilities.*
- *Develop ERO shift relief rosters for the facility.*
- *Perform or direct emergency PA announcements.*
- *Coordinate integration of the NRC Site Team.*
- *Arrange for logistics support.*
- *Ensure flow of information within and between the emergency response facilities.*
- *Provide input for facility briefs and updates.*
- *Coordinate TSC relocation.*

With the exception of Facility activation, these tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. The facility activation action will be retained as a Minimum Staff task and re-assigned to the Station Emergency Director. As such, the TSC Director position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The TSC Director position and the listed responsibilities are being relocated to an EPIP.

EOF Director – The EOF Director is identified as Minimum Staff in the NMP EP-AA-1013, Figure 2-1, Minimum Staffing Requirements for the ERO. The EOF Director is reclassified as Full Augmentation. Under the NMP Emergency Plan, the EOF Director responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the EOF. The position, as currently described in the NMP Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The EOF Director performs support

activities such as coordination, assessment, monitoring, and assistance activities. Specific responsibilities include:

- *Activate the Facility.*
- *Manage the operation of the facility.*
- *Assist offsite agency personnel responding to the facility.*
- *Coordinate integration of the NRC site team.*
- *Support the completion of timely offsite event notifications to State and local authorities.*
- *Evaluate conditions and determine recommendations for PARs.*
- *Assist in the development of recovery plans.*
- *Participate in the Inter-Facility briefing to communicate and obtain event and response information.*
- *Provide input for facility briefs and updates.*

With the exception of the noted tasks below, these EOF Director tasks are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. The facility activation action will be retained as a Minimum Staff task and re-assigned to the Corporate Emergency Director. Also, the responsibility to "*Prepare state/local notification forms with the assistance of the EOF Radiation Protection Manager and the Technical Support Manager,*" is relocated to the State/local Communicator position. Each of these other tasks above are considered support activities and are not required to directly accomplish any of the NRC's Alternative Guidance identified functions. As such, the EOF Director position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The EOF Director position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

NMP will maintain the ENS (NRC) Communicator and State/local (ORO) Communicators consistent with the NRC's Alternative Guidance; however, the reporting location differs. Specifically, the function is maintained with one (1) ENS Communicator staffed at the TSC within 60 minutes to perform NRC communications and one (1) State/local Communicator at the EOF within 60 minutes to perform the State/local notifications with the (OROs).

The NRC's Alternative Guidance designates the minimum staff ORO communication (State/local) is located at the TSC. For NMP, the State/local Communicator is located in the EOF. This is considered acceptable because the NMP EOF is activated at the Alert or higher ECL. By establishing the EOF at the Alert level, the function would be available at the same time as if it were located in the TSC.

Additionally, the NRC's Alternative Guidance, identified an EOF NRC communicator to be staffed within 60 minutes of an SAE or higher ECL. Exelon proposes to credit the TSC ENS communicator to provide information to the NRC in conjunction with the commitment to staff additional communicators as needed.

3.2.3 EP Function: Radiation Protection (formerly Radiological Accident Assessment / Protective Actions (in plant) operational aspects)

The RP function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions.
- Provide in-plant surveys.
- Control dosimetry and radiologically controlled area access.

The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event.

This function is staffed by two (2) qualified RP staff members on-shift. Under the proposed NMP ERO staffing and the NRC's Alternative Guidance, the augmentation (support) of this position occurs in two (2) stages: 1) within 60 minutes of an Alert ECL or greater, three (3) additional qualified RP staff are available; and 2) within 90 minutes of an Alert ECL, or greater, an additional three (3) additional qualified RP staff are available, and both are staffed in the OSC. The total number of qualified RP staff for the ERO is eight (8) considering the on-shift and augmented staff.

The "Technical Analysis in Support of the Guidance in NUREG-0654/FEMA-REP-1, SECTION II.B, Emergency Response Organization," for proposed Revision 2 states that: "based upon staff review and approval of ERO staffing plans, and the evaluation of licensee exercises, the [NRC] staff has determined that expecting 2 qualified RP staff on-shift is reasonable for the increased time period (30 minutes to 60 minutes), at which point additional RP resources would become available, and that 3 additional RP staff in 60 minutes and 3 additional RP staff in 90 minutes is acceptable to ensure the staff can maintain its reasonable assurance finding (10 CFR 50.47(a)). In addition, the [NRC] staff has determined that field monitoring teams (FMTs) (onsite and offsite) can function with limited RP expertise while under the direct supervision of senior RP staff in the TSC or EOF, thus removing the need for a fully qualified RP staff member being a part of the FMT when their expertise is better suited supporting the ERO on-site." The senior RP staff supervising the FMTs at NMP is responsible for directing the FMTs as well as providing direction for their safety from the radiological event.

In addition, the Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654, is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of plant indications of fuel damage available at NMP.

Overall, the ERO functions assigned to qualified RP staff are more clearly defined in Table B-1 to the NRC's Alternative Guidance and support the reduction of the overall staffing levels for qualified RP Technicians.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Radiation Protection – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (2) RP Technicians • (2) Chemistry Technicians 	<ul style="list-style-type: none"> • (2) Radiation Protection Personnel 	<ul style="list-style-type: none"> • (2) Radiation Protection Personnel

Emergency Plan Change Assessment

NMP currently maintains two (2) RP Technicians on-shift (one per Unit) to satisfy the Emergency Plan requirements. NMP will maintain two (2) qualified RP staff members on-shift and the ERO Staffing Table is revised to show two (2) qualified RP staff members for this function.

NMP currently maintains two (2) Chemistry Technicians on-shift (one per Unit) to satisfy the Emergency Plan requirements. The proposed revision removes the Chemistry personnel from Figure 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654, is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at NMP. Early indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR.

An on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Chemistry major task is not required per NMP procedures prior to augmentation. The OSA indicates that the primary responsibility of the on-shift Chemistry Technician is chemistry/radiochemistry sampling to identify fuel damage; however, no chemistry sampling tasks were noted as being time critical in any of the analyzed events.

NRC's Alternative Guidance Alignment

The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance. NMP will maintain two (2) RP personnel on-shift to perform the RP functions and tasks for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access. There are no differences or deviations from the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Radiation Protection – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (2) RP Personnel (In-Plant Surveys) • (4) RP Personnel (In Plant Protective Actions) • (1) Chemistry Personnel 	<ul style="list-style-type: none"> • (3) Additional RP Personnel @ 60 minutes (OSC) • (3) Additional RP Personnel @ 90 minutes (OSC) 	<ul style="list-style-type: none"> • Additional Radiation Protection Technicians @ 60 minutes (In addition to personnel on-shift) (3) (OSC) • Additional Radiation Protection Technicians @ 90 minutes (In addition to personnel on-shift and those responding within 60 min) (3) (OSC)

Emergency Plan Change Assessment

Currently, NMP designates six (6) Minimum Staff RP Technicians as required to support the EP Major Tasks of In-Plant Surveys and In Plant Protective at 60 minutes. NMP proposes to maintain six (6) Minimum Staff RP Technicians; however, consistent with the NRC's Alternative Guidance, three (3) of those RP Technicians will respond within 90 minutes. Note that for the purposes of this table, an RP Personnel consists of persons with an ANSI qualification. This includes RP Technicians or qualified RP Staff members. This is consistent with the guidance provided in the NRC's Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, "Emergency Response Organization."

Technological advances in RP tasks (i.e., protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access) support the additional time proposed in the NRC's Alternative Guidance for the three (3)

RPTs. This includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions supporting RWPs and dosimetry issuance, and enhanced work processes that are available under accident conditions. Supporting tools and processes include portal monitors, self-alarmed dosimeters, and the automated access control system for the RCA that maintain active RWPs (e.g., the system verifies qualifications, dose margins, and access requirements).

The proposed revision also removes the one (1) Minimum Staff Chemistry personnel from Figure 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654 is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at NMP. Early indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR. If reactor sampling is desired, Chemistry Technicians are on staff at NMP and would be called in as necessary to support the event.

NUREG-0654, Revision 2 Alignment

NMP will staff three (3) additional RP Technicians at 60 minutes and three (3) more RP Technicians at 90 minutes in the OSC, consistent with the NRC's Alternative Guidance. The augmented staff will perform the RP functions for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access. There are no differences or deviations from the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.4 EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection

Supervision of RP staff and Site RP Functions include the following tasks as defined in the NRC's Alternative Guidance:

- Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved.
- Recommend onsite protective actions and offsite PARs to the applicable decision-maker, until relieved.
- Direct all radiation protection activities, including Field Monitoring Team (FMT) direction, until relieved.
- Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved.

This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the ED, is crucial for response to radiological events.

Radiological events can be very significant and constantly evolving and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective PARs, requires this expertise to support the ED in making these decisions.

This position is also responsible for the direction and protection of FMTs.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC. Also, for NMP, at the Alert ECL, or greater, an EOF RP Manager position is staffed. Note that this position is primarily tasked with providing the applicable command and control position (i.e., Corporate ED) relevant expertise on radiological events. This will increase the NMP emergency response at the Alert ECL and will ensure EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE.

- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – On-shift		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Shift Emergency Director 	<ul style="list-style-type: none"> • Operations Shift Manager

Emergency Plan Change Assessment

The current NMP Emergency Plan does not specifically identify this Function on-shift under Figure 2-1. To align with the NRC’s Alternative Guidance, the Function is being added and assigned to the Shift ED. The tasks identified above align with current responsibilities for the Shift ED. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the major tasks under this Function identified above can be performed when needed without any additional competing priorities.

NRC’s Alternative Guidance Alignment

NMP will utilize the Shift ED on-shift to perform the *“Supervision of Radiation Protection Staff”* function until relieved by the Augmented Staff. There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO

staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC Radiation Protection Manager • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) TSC Radiation Protection Manager • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) TSC Site Radiation Protection Coordinator • (1) EOF Radiation Protection Manager @ SAE ECL or greater

Emergency Plan Change Assessment

NMP will staff both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL consistent with current Emergency Plan commitments. There are no changes proposed to the current Emergency Plan for this Function.

NRC’s Alternative Guidance Alignment

The TSC RP Manager will perform site related duties which include actions to recommend onsite protective actions, to direct all radiation protection activities at the site, and to evaluate and assess plant radiological data in the development of onsite protective actions. The TSC RP Manager will also provide relevant information to applicable communicators who are communicating offsite PARs to OROs.

The EOF RP Manager will perform duties which include actions to support evaluation of offsite radiological data in the development of onsite protective actions and offsite PARs, and to direct FMTs at the Alert ECL, or greater.

NMP staffing of this Function is different than the NRC’s Alternative Guidance, in that NMP staffs both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL. The NRC’s Alternative Guidance does not staff the EOF RP Manager until the SAE declaration.

This will increase the NMP emergency response at the Alert ECL and will ensure that the EOF RP Manager will be immediately available should an Alert classification escalate to a SAE or GE ECL.

The proposed ERO staffing activates the EOF earlier than the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

3.2.5 EP Function: Dose Assessments/Projections

The Dose Assessments/ Projections function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Perform dose assessments/projections and provide input to applicable PAR decision-maker, until relieved.

This function is important for effective emergency response to a radiological event because timely dose assessments/projections ensure accurate and timely PARs can be developed, when necessary. NMP maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function can be performed when needed without any additional competing priorities.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the EOF.

Maintaining the ability to perform dose assessments/projections at all times ensures that the consequences of a radiological event, to the public, are effectively mitigated by providing timely dose related information to the Station ED (TSC) or Corporate ED (EOF) depending on which position is in command and control. As a result, this position (Function) is expected to be available on-shift and in the EOF depending on the ECL declared.

- a. On-Shift Staff – The table below identifies the current and NMP Emergency Plan on-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
None	<ul style="list-style-type: none"> • Shift Dose Assessor ¹ ¹Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time. 	<ul style="list-style-type: none"> • Dose Assessment / Projections Staff ¹ ¹Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.

Emergency Plan Change Assessment

The Shift Dose Assessment Function is not specifically annotated as assigned to on-shift staff in NMP EP-AA-1013, Figure 2-1, Minimum Staffing Requirements for the ERO, however NMP's EIPs maintain this position at all times. Under the EIPs, NMP utilizes on-shift Chemistry personnel to perform the Dose Assessment Function prior to augmentation of the ERO. The NMP Emergency Plan will be revised to annotate the Dose Assessment Function as the collateral duty and annotated with note (1) *"Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time."* The use of the on-shift RP Technician to perform Dose Assessment is assessed through an on-shift staffing analysis, via 10 CFR 50, Appendix E, Section IV.A.9, to ensure that this EP Function can be performed when needed without any additional competing priorities.

NRC's Alternative Guidance Alignment

NMP will maintain a Shift Dose Assessor on-shift to perform dose assessments/projections and provide input to applicable PAR decision-maker functions. This function is performed by available qualified personnel (e.g., the on-shift RP Technician). Additionally, an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Dose Assessment function on shift can be performed by one of the two (2) RP staff on shift without any additional competing priorities. The proposed ERO staffing for this Function is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) EOF Dose Assessor 	<ul style="list-style-type: none"> • (1) EOF Dose Assessment Coordinator 	<ul style="list-style-type: none"> • TSC (1) Dose Assessment/ Projection Staff • EOF (1) Dose Assessment / Projection Staff @ SAE or greater

NMP currently identifies the EOF Dose Assessor for the Off-site Dose Assessment Function in EP-AA-1013, Figure 2-1. The proposed revision to the NMP Emergency Plan will change the position title to EOF Dose Assessment Coordinator and maintain the position as a dedicated Minimum Staff position to perform off-site dose assessments. The Dose Assessment Coordinator will be activated within 60 minutes of an Alert ECL or greater. The Dose Assessment Coordinator will report to the EOF RPM.

NRC's Alternative Guidance Alignment

The NMP proposed ERO staffing for the Dose Assessment Function is different than that in the NRC's Alternative Guidance. Specifically, the NRC's Alternative Guidance provides for one (1) Dose Assessment position to be staffed at the TSC within 60 minutes of an Alert ECL or higher. A second Dose Assessor is staffed at the EOF within 60 minutes of an SAE ECL or higher. NMP proposes to staff one (1) EOF Dose Assessor at 60 minutes from an Alert ECL or higher.

The NRC's Alternative Guidance was developed based on the premise that the TSC is activated at the Alert ECL or higher and the EOF is activated at the SAE ECL or higher. While the Dose Assessment function falls more in line with the EOF responsibilities, it is not activated within the NRC's Alternative Guidance until a SAE ECL or higher. In order to provide early relief of the on-shift Dose Assessment function for Alert ECLs, the guidance provides a TSC Dose Assessor, which is available at the Alert ECL.

The NMP EOF is staffed within 60 minutes of an Alert ECL or higher, making it unnecessary to staff the redundant TSC Dose Assessor. The EOF Dose Assessor Coordinator will perform duties which include actions to perform dose assessments/projections and provide input to applicable PAR decision-maker at the Alert ECL, or greater.

3.2.6 EP Function: Emergency Classifications

The Emergency Classifications Function includes the following task as defined in the NRC's Alternative Guidance:

- Evaluate plant conditions and recommend emergency classifications, until relieved.

This function is important to ensure a prompt and effective emergency response. Because the impetus for implementing the Emergency Plan is the determination of an EAL at the correct ECL, having this ability maintained at all times is essential. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.

Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function works in coordination with the ED in command and control, and as a result is available on-shift and in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> None specified 	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The NMP Emergency Plan Figure 2-1 does not currently specify a separate Emergency Classification Function for the On-shift Staff. NMP proposes to revise Emergency Plan Figure 2-1 to align with the NRC’s Alternative Guidance. This function is assigned to a pre-existing on-shift staff member as a collateral duty (e.g., STA/IA). The STA/IA has the experience and training to fill this position and the responsibilities for monitoring plant operation are consistent with the EP position responsibilities. The STA/IA is trained in EAL classification and is available in the MCR to evaluate plant conditions and recommend emergency classifications as described in the NRC’s Alternative Guidance.

The STA’s responsibilities are defined in Operations Procedure OP-AA-100-101, Roles and Responsibilities of On-Shift Personnel. The procedure states that the STA/IA maintains a sufficient level of independence commensurate with station conditions to act as an advisor to the Shift Manager during abnormal and emergency conditions. During abnormal and emergency conditions the procedure states that the STA/IA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This

assessment shall include monitoring critical parameters and challenges to radioactive release barriers. The STA/IA is also responsible to perform an independent assessment of Emergency Plan classification (as time permits) and should not cause a delay in making the event classification within the required time limit.

This practice has been demonstrated and evaluated in the Operations Training Program and EP Drills and Exercises. Additionally, the STA/IAs role as an Emergency Classification Advisor is assessed in the OSA under 10 CFR 50, Appendix E, Section IV.A.9.

NRC's Alternative Guidance Alignment

NMP will maintain an Emergency Classification Advisor on-shift to evaluate plant conditions and recommend emergency classifications. There are no differences or deviations from the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • None specified 	<ul style="list-style-type: none"> • TSC (1) Operations Manager (Emergency Classification Advisor) 	<ul style="list-style-type: none"> • TSC (1) Emergency Classification Advisor

Emergency Plan Change Assessment

The current NMP Emergency Plan does not specifically identify a Classification Advisor on Figure 2-1. NMP proposes to utilize the current minimum staff position Operations Manager to support EAL Classification. NMP proposes to revise the Emergency Plan Figure 2-1 to include the Emergency Classification Function and assign the TSC Operations Manager to support and advise the non-delegable responsibility of EAL Classification. The Operations Manager under the Emergency Plan has the necessary background, experience and training to fill this position.

NRC's Alternative Guidance Alignment

NMP will staff a TSC Operations Manager at 60 minutes to evaluate plant conditions and recommend emergency classifications. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.7 EP Function: Engineering

The Engineering function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. Specifically:
 - An engineer to monitor and evaluate changing core/thermal hydraulic issues is important to effective emergency response because monitoring and evaluating core conditions, or thermal hydraulic conditions of the reactor coolant system, can support timely corrective action(s), ECL declarations, and subsequent PARs. Radiological events from a power reactor come from damage to an operating reactor core, or the systems used to cool the core, and engineering expertise in this area can greatly benefit the licensee's response.

This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The augmentation of this function is available within 60 minutes of an Alert ECL or greater, and is staffed in the TSC.

- An engineer to provide expertise in Electrical/ I&C systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60-minutes of an Alert ECL, or greater, and is staffed in the TSC.
- An engineer to provide expertise in mechanical systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.
- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Engineering – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (1) Shift Technical Advisor/Incident Advisor (IA) 	<ul style="list-style-type: none"> (1) STA/IA <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) Core/Thermal Hydraulics Engineer <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The current NMP Emergency Plan utilizes the STA/IA to satisfy the on-shift responsibilities for the Plant System Engineering, Repair, and Corrective Actions Function (Major Tasks: Technical Support).

Under the NRC’s Alternative Guidance, the EP Engineering function is included as an on-shift function. The NMP Emergency Plan would be revised to identify the Engineering Function as a collateral duty satisfied by the STA/IA on-shift. Under NMP’s procedure OP-AA-101-111, Roles and Responsibilities of On-Shift Personnel, the STA/IA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This assessment shall include monitoring critical parameters and challenges to radioactive release barriers. The STA/IA is also responsible to monitor Critical Safety Function Status per the EOPs.

NRC’s Alternative Guidance Alignment

NMP will maintain STA/IA on-shift to perform the Core/Thermal Hydraulics Engineer function as a collateral duty. There are no differences or deviations from the NRC’s Alternative Guidance and the proposed changes to the NMP Emergency Plan.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Engineering – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) Core Thermal/Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical Engineer • (1) Technical Advisor (EOF) • Operations Manager (TSC) 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulics Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation & Controls Engineer 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation and Control (I&C) Engineer

Emergency Plan Change Assessment

The NMP Emergency Plan currently identifies a Minimum Staff of one (1) Core Thermal/Hydraulic Engineer, one (1) Mechanical Engineer and one (1) Electrical Engineer consistent with the NRC’s Alternative Guidance. These positions will continue as Minimum Staff in the proposed NMP Emergency Plan Table. Note that the TSC Operations Manager is retained as Minimum Staff, but is relocated to the Emergency Classifications Function.

The following position, currently identified as Minimum Staff under the NMP Emergency Plan, are being re-categorized as Full-Augmented Staff and managed within an EPIP.

EOF Technical Advisor – The EOF Technical Advisor is identified as Minimum Staff in EP-AA-1013, Figure 2-1, Minimum Staffing Requirements for the ERO. The EOF Technical Advisor is reclassified as Full Augmentation. Under the NMP Emergency Plan, the EOF Technical Advisor responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC’s Alternative Guidance, but rather support other personnel at the EOF. The position, as currently defined in the NMP Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The EOF Technical Advisor performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Monitor plant status and Control Room activities.*
- *Provide input for facility briefs and updates.*

Each of these tasks above are considered support activities and are not required to directly accomplish any of the NRC’s Alternative Guidance identified functions. As such, the EOF Technical Advisor position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The EOF Technical Advisor position and the listed responsibilities are being relocated to an EPIP.

NRC’s Alternative Guidance Alignment

NMP will staff a Core Thermal/Hydraulic Engineer, a Mechanical Engineer, and an Electrical Engineer at 60 minutes to provide engineering coverage related to their specific discipline. The EOF Technical Advisor position is not identified in the NRC’s Alternative Guidance. There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

3.2.8 EP Function: Security

The NMP Security Force is controlled and maintained by the NRC-approved Physical Security Plan (PSP) and is not reflected in the Emergency Plan. However, the establishment of a Security position in the TSC is advantageous to ensure effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed by Security personnel in the TSC to coordinate security-related activities with that of the ERO. The command and control staff of the TSC all respond within 60 minutes of an Alert ECL, or greater, to ensure that the ED has access to the resources and expertise of the site staff in order to develop response plans for a wide-spectrum of events.

- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Security – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • Per the Security Plan 	<ul style="list-style-type: none"> • Security staffing per the site-specific security plan 	<ul style="list-style-type: none"> • Security staffing per the site-specific security plan

Emergency Plan Change Assessment

There are no changes between the current NMP Emergency Plan staffing and the proposed changes to the Emergency Plan for the on-shift Security function.

NRC's Alternative Guidance Alignment

There are no differences or deviations from the NRC's Alternative Guidance. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Security – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
N/A	<ul style="list-style-type: none"> • (1) TSC Security Coordinator 	<ul style="list-style-type: none"> • (1) TSC Security Liaison

Emergency Plan Change Assessment

NMP is revising the Emergency Plan to re-categorize the Full Augmentation TSC Security Coordinator position as Minimum Staff. The addition of Minimum Staff position ensures timely and effective coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability.

NRC's Alternative Guidance Alignment

NMP will staff a TSC Security Coordinator at 60 minutes to be a liaison to the Security Force. There are no differences or deviations from the NRC's Alternative Guidance.

The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.9 EP Function: Repair Team Activities

The NRC has determined that, from an EP perspective, the ability to get Emergency Core Cooling System (ECCS) equipment operational was the primary basis for necessitating maintenance expertise while on-shift. The NMP ECCS are designed to be

redundant and diverse such that common mode failures are very unlikely. From the NMP Unit 1 UFSAR:

Heat removal systems are provided which are capable of safely accommodating core decay heat under all credible circumstances, including isolation from the main condenser and loss of coolant from the reactor. Each different system so provided has appropriate redundant features.

Independent auxiliary cooling means are provided to cool the reactor under a variety of conditions. The normal auxiliary cooling means during shutdown and refueling is the shutdown cooling system described in Section X-A. A redundant emergency cooling system, described in Section V-E, is provided to remove decay heat in the event the reactor is isolated from the main condenser while still under pressure. Additional cooling capability is also available from the high-pressure coolant injection (HPCI) system and the fire protection system.

Redundant and independent core spray systems are provided to cool the core in the event of a loss-of-coolant accident (LOCA). Automatic depressurization is included to rapidly reduce pressure to assist with core spray operation (see Section VII-A).

From the NMP Unit 2 UFSAR:

23. *The ECCS provides for continuity of core cooling over the complete range of postulated break sizes in the RCPB.*
24. *The ECCS is diverse, reliable, and redundant.*
25. *Operation of the ECCS is initiated automatically when required, regardless of the availability of offsite power.*

As a result of the redundant and diverse design, the need to accommodate maintenance functionality on-shift is unnecessary. Operations staff are trained to do those operator actions (e.g., lifting leads, installing jumpers, etc.) required to support the performance of Emergency Operating Procedures. Nevertheless, a minimum number of Maintenance personnel are assigned to respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event. (Operators trained to lift leads)

The augmentation (support) of the Electrician and Mechanical positions occur within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC. The augmentation (support) of the I&C position is available within 90 minutes of an Alert ECL, or greater, and is staffed in the OSC. The OSC is the ERF associated with maintenance tasks, as directed by the Command and Control staff in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – On-shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
N/A	N/A	N/A

Emergency Plan Change Assessment

The current NMP Emergency Plan does not specifically mention on-shift staffing to address on-shift Repair and Corrective Actions. NMP staff are trained to perform all the necessary actions to initiate the station ECCS systems. The proposed revision utilizes the language from the NRC's Alternative Guidance.

NRC's Alternative Guidance Alignment

There are no differences or deviations from the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (2) Mechanical Maintenance (OSC) • (2) Electrical Maintenance (OSC) • (2) I&C Maintenance (OSC) 	<ul style="list-style-type: none"> • (1) OSC Mechanical Maintenance Technician • (1) OSC Electrical Maintenance Technician • (1) OSC I&C Technician @ 90 minutes <p>Additional Mechanical and Electrical Maintenance Techs as needed.</p>	<ul style="list-style-type: none"> • (1) Mechanic (OSC) • (1) Electrician (OSC) • (1) I&C Technician @ 90 minutes • Additional Mechanical and Electrical Maintenance Techs as needed.

Emergency Plan Change Assessment

The current NMP Emergency Plan provides for two (2) Mechanical Maintenance technicians, two (2) Electrical Maintenance Technicians and two (2) I&C to the OSC at 60 minutes. NMP is revising the Maintenance response consistent with the NRC's Alternative Guidance, which provides for one (1) technician from each discipline to be staffed as Minimum Staff. Additional technicians are available and would be called as needed depending on the nature of the emergency repairs needed. NMP has a proven Work Management program that has demonstrated the ability to respond to emergent work activity issues during off hours, weekends, and holidays. In an emergency situation, the Minimum Staff OSC responders from each Maintenance discipline would be available to assess the required work activities, begin preparation activities, and request the needed support in a timely manner. The proposed staffing is consistent with the NRC's Alternative Guidance and provides the necessary personnel to respond to the emergency condition.

NRC's Alternative Guidance Alignment

NMP will staff one (1) Mechanical and one (1) Electrical Maintenance Technician at 60 minutes to perform the maintenance activities from the OSC to respond to the emergency condition. An I&C Technician will respond within 90 minutes consistent with the NRC's Alternative Guidance. Depending on the need, additional Maintenance Technicians will be called in to support the OSC activities. There are no differences or deviations from the NRC's Alternative Guidance.

3.2.10 EP Function: Supervision of Repair Team Activities

The ability to effectively supervise repair team personnel during emergency response is important. The augmentation (support) of these functions is as follows:

- A Lead OSC Supervisor (OSC Director) is staffed within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC.
- An Electrical Supervisor/Lead, a Mechanical Supervisor/Lead, an I&C Supervisor/Lead, and an RP Supervisor/Lead is staffed within 90 minutes of an SAE ECL, or greater, and is staffed in the OSC.

The OSC Director can effectively manage the Maintenance resources for the additional 30 minutes prior to the specific craft (Mechanical, Electrical, or I&C) responding, as demonstrated through drills and exercises.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at NMP.

EP Function: Supervision of Repair Team Activities – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Supervision of Repair Team Activities – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) OSC Director • (1) Assistant OSC Director (TSC) 	<ul style="list-style-type: none"> • (1) OSC Director • (1) Electrical Maintenance Supervisor/Lead @ 90 mins (OSC) • (1) Mechanical Maintenance Supervisor/Lead @ 90 mins (OSC) • (1) I&C Supervisor/Lead @ 90 mins (OSC) • (1) RP Supervisor/Lead @ 90 mins (OSC) 	<ul style="list-style-type: none"> • (1) Lead OSC Supervisor • (1) Electrical Supervisor @ 90 mins • (1) Mechanical Supervisor @ 90 mins • (1) I&C Supervisor @ 90 mins • (1) Radiation Protection Supervisor @ 90 mins

Emergency Plan Change Assessment

The current NMP Emergency Plan Figure 2-1 identifies the Supervisory positions of OSC Director and Assistant OSC Director under the Major Task of Repair and Corrective Actions. The OSC Director effectively manages the Maintenance resources upon activation of the facility.

NMP is adding four (4) Minimum Staff positions to the OSC to be staffed at 90 minutes. These include an Electrical Maintenance Supervisor/Lead Technician, a Mechanical Maintenance Supervisor/Lead Technician, an I&C Supervisor/Lead Technician, and a RP Supervisor/Lead Technician. The addition of the four (4) supervisor positions enhances the ERO response by putting in place effective supervision repair team personnel early in the emergency response.

Assistant OSC Director - The Assistant OSC Director is being re-categorized from Minimum Staff to Full Augmentation Staff. Under the NMP Emergency Plan, the Assistant OSC Director responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the TSC. The position, as currently defined in the Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The Assistant OSC Director performs support activities such as supervisory actions, validations, coordination, and assistance activities. Many of these tasks are performed by the minimum staff craft supervisors/lead technicians. Specific responsibilities are described in the Emergency Plan:

- *Coordinate between CR, OSC and TSC to set OSC team task priorities.*
- *Participate with OSC team dispatch and control.*
- *Assemble and dispatch OSC and offsite monitoring teams.*
- *Provide input for facility briefs and updates.*

The task above is considered a support activity and is not required to directly accomplish any of the NRC's Alternative Guidance identified functions. As such, the Assistant OSC Director position can be deleted from the Minimum Staff and maintained as a Full Augmentation position. The Assistant OSC Director position and the listed responsibility is being relocated to an EPIP.

NRC's Alternative Guidance Alignment

Under the proposed NMP Emergency Plan staffing, the OSC Director position is staffed within 60 minutes to oversee the activation of the OSC facility and the maintenance craft as they arrive. The Mechanical, Electrical, I&C, and RP Supervisors/Lead Technicians staff at 90 minutes to support coordination and supervision of repair team activities.

NMP proposes one difference to the NRC's Alternative Guidance. Specifically, NMP proposes to allow a Maintenance or RP Lead Technician to fill the supervisory role at 90 minutes. Under the Exelon Maintenance and RP programs, Lead Technicians are qualified, experienced craft technicians who successfully demonstrate the day-to-day leadership of the technician work force and act as lead on back shifts. Duties

and responsibilities include training and development of other employees in performing preventive maintenance and routine equipment service activities. Basic qualifications for a Lead Technician include demonstrated reliability and responsibility and the ability to make quick and effective technical decisions, as well as demonstrated situational leadership, environmental and safety stewardship. The experience and qualification of NMP Lead Technicians satisfy the requirements and the needs of the OSC for the Supervision of Repair Team Activities EP Function.

Other than the difference discussed above, the proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.11 EP Function: Field Monitoring Teams (FMTs)

The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability to provide timely and accurate PARs.

The augmentation (support) for these teams is as follows:

- Onsite Field Monitoring

An On-site Field Monitoring person is staffed consisting of personnel to monitor radiation. This on-site position is responsible for radiological monitoring of the site's PA. The size and configuration of the NMP PA does not support the need for an accompanying driver. The PA can be easily and efficiently traversed. This RP person is staffed within 60 minutes of an Alert ECL, or greater.

The Onsite Field Monitor is qualified to assess radiation and contamination levels, but is not necessarily an ANSI-qualified RP Technician since the person is under the direct supervision of RP Manager in the TSC. Note: the Onsite On-site Field Monitor would not be staffed if the radiological conditions jeopardize the safety of the Onsite Field Monitor.

- Offsite Field Monitoring

An Offsite FMT is staffed, consisting of a Monitor and a driver, within 60 minutes of an Alert ECL, or greater. This Offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

Another Offsite FMT is staffed, consisting of a monitor and a driver, within 90 minutes of an Alert ECL, or greater. This Offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining

environmental samples (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at NMP.

EP Function: Field Monitoring Teams – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> N/A 	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NUREG-0654, Revision 2 guidance for this EP Function.

EP Function: Field Monitoring Teams – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> (2) Onsite Field Team Personnel (4) Offsite Monitoring Team Personnel 	<ul style="list-style-type: none"> Onsite Field Monitoring Individual (Qualified Individual) Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver) 	<ul style="list-style-type: none"> Onsite Field Monitoring Team (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver)

Emergency Plan Change Assessment

Onsite Field Monitoring - The current NMP Emergency Plan designates two (2) RP personnel as Minimum Staff for the EP function of On-site Surveys. The proposed changes to the NMP Emergency Plan designate one (1) RP person for on-site surveys. The number of RP personnel for this function is consistent with the NRC's Alternative Guidance. Note there is a difference with respect to the designated on-

site FMT Driver (discussed below). The reduction in RP personnel to this task is acceptable because one (1) Field Monitor dedicated to monitor and survey the site area is sufficient to provide current and timely data to the TSC/EOF in emergency conditions. At Exelon stations, the onsite Field Monitor is responsible only for monitoring the PA. The size of the station's PA allows traverse in minutes and a second RP Field Monitor would not be required to perform this function. The monitoring equipment is hand-held and does not require two (2) personnel for transport or operation. The Owner Controlled Area (OCA) has an infrastructure that supports vehicular traffic and will be monitored by the Offsite FMTs. This is the current Exelon process and has been demonstrated successfully through drills and exercises at Exelon stations.

Offsite Field Monitoring Teams - The Offsite Monitoring Teams at NMP currently consist of two (2) Teams staffing at 60 minutes; each consisting of a driver and one (1) RP personnel. NMP proposes to change the Offsite FMTs to be consistent with the NRC's Alternative Guidance. Specifically, there would be two (2) FMTs, but one (1) FMT would staff at 60 minutes and one FMT would staff at 90 minutes. Additional time in the response is considered acceptable. Since both FMTs are expected to respond to an event in order to better coordinate radioactive plume tracking action(s), allowing for additional time provides some flexibility in staffing this ERO function without compromising the "reasonable assurance" finding in accordance with 10 CFR 50.47(a).

NRC's Alternative Guidance Alignment

The proposed ERO staffing for Onsite Field Monitoring is different than that proposed in the NRC's Alternative Guidance. Specifically, NMP On-site Field Monitoring will be staffed without a designated driver.

At Exelon stations, the On-site Field Monitor is responsible only for monitoring the area within the PA. The size of the station's PA allows traverse of foot in minutes and a designated driver would not be required to perform this function. The PA is sized to allow efficient traverse without the use of a vehicle. Additionally, the PA does not have an infrastructure which readily supports vehicle transportation.

For Exelon stations, the OCA supports vehicular traffic and is the responsibility of one of the Offsite FMTs. This has been demonstrated successfully through drills and exercises at Exelon stations. The 60-minute and 90-minute Offsite FMTs will staff consistent with the NRC's Alternative Guidance.

Note that since NMP and the James A. FitzPatrick Nuclear Plants (JAF) are located at the same site, it will be possible for JAF to share Offsite Field Monitoring responsibilities with NMP. The Emergency Plan commitment will be for 2 Offsite Field Monitoring Teams available to respond for either site. Under the Standardized Emergency Plan, both sites utilize the same procedures for the Offsite Monitoring Teams. The Offsite teams will be available, trained and qualified to respond to either JAF or NMP Emergencies in accordance with the EP Implementing Procedures.

3.2.12 EP Function: Media Information

The Media Information function includes the following tasks:

- Manage and coordinate media information related to the event.

Media relations is an important part of effective emergency response and is consistent with the National Incident Management System (NIMS). Revision 1 of NUREG-0654 left the exact staffing composition flexible, with input from applicable OROs, and from the Federal Emergency Management Agency (FEMA).

The augmentation (support) of this function is defined for NMP to be that which is absolutely needed to support this function (i.e., without those positions this function could not occur).

NMP is supported through the Exelon Communications Department at all times. The Communications Department responds to media inquiries initially for any ECL. The Communications Department coordinates with Exelon Management and ERFs to respond to media inquiries. Press releases are issued as appropriate from the Communications Department.

Within 90 minutes of an Alert ECL or higher, the NMP Emergency Plan is being revised to describe the positions of Corporate Spokesperson, Public Information Director, and Joint Information Center (JIC) Director as those necessary to support the additional news media related tasks associated with the more significant classifications. These tasks include periodic press briefings, media engagement, and coordination with State and local Emergency Management Agencies (EMAs).

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon Communications Department is available to address news media inquiries 24 hours/day. This is consistent with the NRC’s Alternative Guidance.

EP Function: Media Information – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Media Information – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) Company Spokesperson • (1) JIC Manager • (1) Media Monitor/Rumor Control Coordinator • (1) Logistics Manager • (1) Technical Advisor 	<ul style="list-style-type: none"> • (1) Corporate Spokesperson (established @ 90 min of an Alert or higher ECL) (1) JIC Director (established @ 90 min of an Alert or higher ECL) • (1) Public Information Director (Does not need to be performed in the JIC, but needs to be established @ 90 min of an Alert or higher ECL) 	<ul style="list-style-type: none"> • JIC/JIS staff to address media inquiries at the Alert ECL • Staff to perform JIC/JIS related tasks at SAE ECL or greater

Emergency Plan Change Assessment

The JIC Staff is identified as Minimum Staff in the NMP Emergency Plan EP-AA-1013, Figure 2-1, Minimum Staffing Requirements for the ERO. Specifically, the NMP Emergency Plan identifies a (1) Company Spokesperson, (1) JIC Manager, (1) Media Monitor/Rumor Control Coordinator, (1) Logistics Manager and (1) Technical Advisor as Minimum Staff and required to activate the JIC Facility within 60 minutes of an Alert or higher event declaration to the JIC.

The proposed change to the NMP Emergency Plan identifies three (3) Minimum Staff positions to be staffed following an Alert ECL to address the Media Information EP Function. The positions consist of the Corporate Spokesperson, Public Information Director, and JIC Director. The positions are established within 90 minutes of an Alert or higher ECL.

The following positions, currently identified as Minimum Staff are being re-categorized as Full-Augmented Staff.

JIC Logistics Manager - Under the NMP Emergency Plan, the JIC Logistics Manager responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the JIC. The position, as currently defined in the NMP Emergency Plan, would not be

considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The JIC Logistics Manager performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Manage the administrative support staff.*
- *Develop ERO shift relief rosters for the facility.*
- *Arrange for logistics support.*
- *Oversee set-up and testing of JIC equipment.*
- *Maintain access control to the JIC.*
- *Provide input for facility briefs and updates.*
- *Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.*
- *Coordinate preparation, review and distribution of Media Statements.*
- *Obtain ED approval for the technical content of Media Statements.*
- *Keep JIC staff informed of plant status and EXELON emergency response activities.*

JIC Technical Advisor - Under the NMP Emergency Plan, the JIC Technical Advisor responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The JIC Technical Advisor performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Provide technical expertise to the JIC staff.*
- *Assist the News Writer with development of technically accurate media statements.*
- *Provide answers to technical questions from the news media regarding the emergency situation.*
- *Periodically monitor EOF/TSC briefings and Technical Information Line to obtain information.*
- *Provide technical information support to the Company Spokesperson.*
- *Monitor event information on the facility display systems.*

- *Provide input for facility briefs and updates.*

Media Monitor/Rumor Control Coordinator - Under the NMP Emergency Plan, the Media Monitor/Rumor Control Coordinator responsibilities do not directly perform actions necessary to accomplish EP functions under the NRC's Alternative Guidance, but rather support other personnel at the JIC. The position, as currently defined in the NMP Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The Media Monitor/Rumor Control Coordinator performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Supervise media monitoring and Inquiry Phone Team personnel.*
- *Review Media Monitoring team information for trends, misinformation and rumors.*
- *Review Phone Team information for trends, misinformation and rumors.*
- *Ensure adequate staff is available to perform media monitoring and phone team functions.*
- *Provide input for facility briefs and updates,*

The NMP Emergency Plan is revised to activate the (3) positions within 90 minutes of an Alert or higher classification.

The Exelon Corporate Communications Department is capable of responding to and addressing events prior to the arrival of the JIC Minimum Staff at 90 minutes of an Alert ECL or higher.

NRC's Alternative Guidance Alignment

The proposed ERO staffing activates the JIC at a lower ECL than the NRC's Alternative Guidance. Exelon proposes to activate the JIC within 90 minutes of an Alert ECL or higher. The 90-minute activation time provides for a larger population of candidates to fill the JIC minimum staff positions and is offset to some degree by the activation of the JIC at a lower ECL than stipulated in the NRC's Alternative Guidance. The Exelon Communications Department is will provide for the JIC functions until the JIC is activated and turnover of responsibility occurs.

NMP will staff a Corporate Spokesperson at the JIC to maintain Command and Control of the JIC and conduct periodic briefings with the news media. The JIC Director is staffed at the JIC to coordinate with the State, local and Federal agencies to maintain factual consistency of information conveyed. NMP will also staff a Public Information Director to oversee the issuance of news releases and media

monitoring/rumor control. The Public Information Director function may be performed remotely by taking advantage of advancements in communication technology.

3.2.13 EP Function: Information Technology

The Information Technology (IT) function includes the following tasks:

- If Emergency Plan functions rely on computer-based equipment, provide IT support.

The ever-increasing advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. NMP has assessed the use of this technology as it is used to enhance the ability to protect the health and safety of the public with respect to EP.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon IT department maintains a 24 hour/day HELP Desk to assist users with IT related issues.

EP Function: Information Technology – On-Shift Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC's Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed NMP Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Information Technology – Minimum Staff		
Current Emergency Plan, Figure 2-1	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> Not Applicable 	<ul style="list-style-type: none"> (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher) <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) EOF/JIC/JIS IT Lead @ SAE ECL or greater <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p> <ul style="list-style-type: none"> (1) TSC IT Lead @ 90 mins <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The current NMP Emergency Plan does not identify IT positions as Minimum Staff. NMP maintains a Computer Specialist position at the EOF and TSC as a Full Augmentation position. Performance of digital equipment at EOF and TSC has shown to be acceptable during drills and exercises with this staffing. With the built-in redundancy for communication systems and digital EP assets, NMP has not identified a need to maintain an IT Lead as a Minimum Staff position at the TSC facility. The EOF Computer Specialist is revised to Minimum Staff with a response time of 90 minutes from the Alert or higher ECL.

NRC’s Alternative Guidance Alignment

NMP proposes to staff an IT Lead at the EOF as Minimum Staff; however, NMP proposes to staff the position within 90 minutes of an Alert or higher rather than 60 minutes of a Site Area Emergency. NMP does not propose to staff an IT Lead position as minimum staff at the TSC.

The NMP EOF and TSC contain multiple computers and programs in the facility which support EP functions. This includes Plant Parameter Display Systems, Core Damage Assessment and Dose Assessment programs, as well as Web EOC, fax, and copy machines. Performance during drills and exercises indicates consistent performance of the digital assets in the facilities. The communications, dose assessment and core damage assessment equipment is periodically tested and issues, if any identified, are promptly addressed. The facilities and respective digital equipment are frequently used through administration of training for each team, as well as drills and Exercises. In addition, the IT Department maintains a Site IT Duty Person (SIDP) per procedure IT-AA-2001, Information Technology Response to Emergent Issues Process, for each station. During duty periods, the SIDP must be fit for duty, available, reachable by telephone, pager, and/or cell phone at all times. The SIDP shall function as the single point of contact for site IT during the duty period.

- When contacted, must respond to all requests for emergent assistance, including conference calls.
- Manage the response to the emergent IT issues at the site. Primary role to coordinate recovery actions with Vendors and other support teams, as needed.
- Ensure that the appropriate priority and resources are assigned to address all emergent issues.
- Utilize SY-AA-102-201, Call-Outs for Unscheduled Work, for any required Call-Outs.

Additionally, Exelon maintains an IT HELP Desk 24 hours per day, 7 days a week. Many computer issues can be addressed remotely with an IT specialist at the HELP Desk. If additional help is needed at the TSC, the EOF IT Specialist will be available to support resolution of the issue.

In addition, each of these EP related digital assets in the TSC and EOF were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets at the TSC and EOF have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail for any reason. For example, both the Core Damage Assessment program and the Dose Assessment programs have a redundant, non-network laptop computer at their respective facility to maintain the EP function should the designated computer fail. ERO position procedures have written instructions for backup communication measures should the primary means fail.

Finally, performance of digital assets is monitored through either the Corrective Action Program or the EP Drill and Exercise critique process. Performance trends are monitored and corrective actions are implemented as necessary.

3.2.14 EP Function: First Aid and Rescue Operations

The First Aid and Rescue Operations EP Function no longer exists in the NRC's Alternative Guidance.

- a. On-Shift Staff – The table below identifies the current and proposed NMP Emergency Plan on-shift ERO staff.

EP Function: First Aid and Rescue Operations – On-Shift Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> (2) First Aid Team Personnel (collateral duty of Fire Brigade) 	<ul style="list-style-type: none"> Not Applicable

Emergency Plan Change Assessment

The NMP Emergency Plan Figure 2-1 identifies personnel filling the EP Function of Rescue Operations and First Aid as collateral duties. NMP utilizes trained on shift personnel to satisfy this responsibility. First Aid and Rescue is no longer identified as an EP Function under the NRC's Alternative Guidance Table B-1 guidance. First Aid is still maintained as part of the NRC's Alternative Guidance under Section II.L, "Planning Standard for Medical and Public Health Support." As such, NMP will continue to maintain qualified First Aid and Rescue personnel on shift; however, the personnel resources are no longer listed on the Emergency Plan Table consistent with the NUREG-0654, Revision 2 guidance.

NRC's Alternative Guidance Alignment

The First Aid and Rescue Operations EP Function does not exist in the NRC's Alternative Guidance Table B-1 guidance. Therefore, removing the Function from the Emergency Plan is consistent with the NRC's Alternative Guidance.

- b. Minimum Staff – There are no ERO resources assigned to First Aid and Rescue Operations under the current NMP Emergency Plan. Additionally, the First Aid and Rescue Operations EP Function does not exist in the NRC's Alternative Guidance. No revision is required to the NMP Emergency Plan.

3.3 Full-Augmentation Staff Assessment

The table below identifies the current NMP Full Augmentation ERO for each of the EP Functions. These positions are removed from the Emergency Plan and are either relocated to an EPIP or re-categorized as Minimum Staff, as annotated below.

EP Function: Communications – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF Ops Communicator • (1) TSC Ops Communicator • (2) MCR Ops Communicators • (1) EOC Communicator • (1) State EOC Liaison • (1) County EOC Liaison • (3) Incident Command Post Liaisons (as needed) 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Dose Assessments/Projections – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF Dose Assessor 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Security – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) TSC Security Coordinator 	<ul style="list-style-type: none"> • TSC Security Coordinator changed to Minimum Staff
EP Function: Repair Team Activities – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan

<ul style="list-style-type: none"> (1) OSC Team Tracker (1) OSC Ops Communicator 	<ul style="list-style-type: none"> OSC Team Tracker to be managed under Emergency Plan Implementing Procedures (EPIP) Ops Communicator positions to be managed under Emergency Plan Implementing Procedures (EPIP)
EP Function: Supervision of Repair Team Activities – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> (1) OSC Chem Technician (1) OSC Operations Group Lead (1) TSC Maintenance Manager (1) TSC Technical Manager (1) OSC Electrical Maintenance Group Lead (1) OSC Mechanical Maintenance Group Lead (1) OSC I&C Group Lead (1) OSC RP Group Lead 	<ul style="list-style-type: none"> TSC Technical Manager, TSC Maintenance Manager, Chemistry Technician and Operations Group Lead positions to be managed under Emergency Plan Implementing Procedures (EPIP) Electrical Maintenance, Mechanical Maintenance, I&C and RP Group Leads changed to Minimum Staff
EP Function: Field Monitoring Teams – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> (1) EOF Environmental Coordinator 	<ul style="list-style-type: none"> Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Media Information – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> (1) JIC Media Liaison (1) JIC News Writer 	<ul style="list-style-type: none"> JIC Media Liaison changed to Minimum Staff as Public Information Director

<ul style="list-style-type: none"> • (2) JIC Media Monitoring Team • (2) JIC Inquiry Phone Staff • (1) JIC Security 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: Information Technology – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist • (1) TSC/OSC Computer Specialist 	<ul style="list-style-type: none"> • EOF/JIC Computer Specialist changed to Minimum Staff • TSC/OSC Computer Specialist position to be managed under Emergency Plan Implementing Procedures (EPIP)
EP Function: Resource Allocation and Administration – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (1) EOF Logistics Manager • (1) TSC Administrative Staff • (2) EOF Administrative Staff • (1) JIC Administrative Staff • (1) OSC Administrative Staff 	<ul style="list-style-type: none"> • Manage positions under Emergency Plan Implementing Procedures (EPIP)
EP Function: First Aid and Rescue Operations – Full-Augmentation Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • First Aid and Rescue Operations (Personnel numbers depend on the type and extent of the emergency.) 	<ul style="list-style-type: none"> • Removed from Staffing Table

Neither NUREG-0654, Revision 1 nor the NRC’s Alternative Guidance discuss Full Augmentation positions under Table B-1. In the NRC’s Alternative Guidance, Table B-1, Note iii addresses the required minimum staffing as compared to other staff not critical to the effective Emergency Plan implementation. Note iii states:

iii. The minimum ERO staffing plan is that which is required to effectively implement the site-specific emergency plan (i.e., the emergency plan cannot be effectively implemented without this staff). The emergency plan should

describe the minimum ERO staffing plan, while supporting implementing procedures can describe any other staff response desired by the licensee as long as this staff is not critical to effective emergency plan implementation. The augmentation times listed are intended to provide a model for applicants and licensees to consider in the development of their site-specific emergency plan.

The intent of this note is to emphasize the distinction between ERO minimum staffing and ERO members who serve in a supporting capacity.

The NMP Emergency Plan describes the Minimum Staff ERO that is the absolute minimum needed to implement the station's Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan cannot be effectively implemented). NMP utilizes additional Full Augmentation ERO Staff that are trained, qualified, and available to ensure all available licensee resources are used when a radiological emergency occurs and to provide for staff relief on a 24-hour / 7-day a week extended basis. The Full Augmentation Staff performs support functions such as intra-facility communications, organization liaisons, and expert advisors. This description of the additional Full Augmentation ERO Staff is being relocated from the NMP Emergency Plan to an EPIP.

The NMP Emergency Plan shall be effectively implemented utilizing the Minimum Staff positions. However, most Full-Augmentation Staff will still be assigned ERO teams, be expected to maintain Fitness-for-Duty during duty weeks, and be notified to respond to their ERF at the Alert or higher ECL. Their presence will not be required, however, to activate the respective ERFs.

The complete list of Full-Augmented Staff relocated from the NMP Emergency Plan, along with their respective EP tasks is listed in Attachment 2C of this Enclosure. Each EP task assigned under the Emergency Plan is further evaluated and dispositioned in Attachment 2C.

3.4 **Other Changes to the Emergency Plan**

3.4.1 **Command and Control Turnover**

The Exelon Standardized Radiological Emergency Plan EP-AA-1000, Part II, Sections B.3 and B.4, are being revised to reflect the changes to the Command and Control turnover description. With the proposed changes in ERO, the description of the turnover process is revised to more clearly describe the transfer of non-delegable duties for PARs and State/local notifications directly from the MCR to the EOF. The Command and Control turnover of responsibilities continues to occur between the MCR, TSC, and EOF concurrently on a bridge-line without delay.

Existing requirements and capabilities under the Emergency Plan have not been deleted or reduced as part of this revision and as such, the station Emergency Plan continues to meet regulatory requirements. A review of existing regulatory Commitments was made to ensure existing commitments continue to be met.

3.4.2 Shared EOF/JIC Staffing with James A. FitzPatrick Nuclear Station (JAF)

The JAF-NMP EOF was a co-located licensee 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 facility is shared by both JAF and NMP.

The EOF (previously owned by Entergy) and JIC (previously owned by Constellation Energy (later Exelon)), were staffed with separate EROs operating from the same facility. Following the acquisition of JAF by Exelon in 2017, the respective EROs continued to be maintained separately.

Both NMP and JAF EROs share the same facility and are operated from the same room, with different and separate EROs. Exelon proposes to revise the Emergency Plan for both stations to utilize a common EOF and JIC offsite ERO.

The ERO responding to the site ERFs (TSC, OSC, MCR) are unaffected by this change. No physical changes to the facilities are required to support this LAR. The JAF-NMP EOF is currently designed and built to display key plant data and radiological information for NMP Units 1 and 2, as well as JAF. There is sufficient space and equipment for both EROs to respond simultaneously to a common emergency.

The revision would allow for a common offsite ERO to respond to the EOF and JIC for an event that affects either or both stations.

This concept is common within the nuclear industry with many stations sharing an EOF. For Exelon, this is similar to the Cantera EOF in Illinois, which serves the 6 Midwest Exelon stations, and the Coatesville EOF in Pennsylvania, which serves 3 Mid Atlantic stations.

For the JAF-NMP EOF, there is no change needed to the technology, space or equipment since the EOF is currently common to both stations. The only change is for the people responding to the emergency.

The responding ERO will be trained and qualified to perform their EP functions and tasks with respect to both stations, similar to how training is handled for Exelon's Cantera and Coatesville EOFs. The ERO positions at both stations will be common, utilizing common procedures, training, and response times.

Under the current ERO activation program, Exelon maintains an "all respond" expectation for its ERO. When the Shift Manager directs the activation of the ERO call out system, all ERO members are notified to facilitate adequate coverage of ERO positions at their designated emergency response facilities. NMP requires members, who are fit for duty and able to respond, to act promptly in reporting to their assigned ERF, even when not on duty. In cases when both NMP and FitzPatrick are impacted by the common Emergency,

excess personnel that respond would be retained and assigned support as necessary. Sufficient space is already available, since the facility is currently utilized for both EROs working together.

The proposed revision has no impact on the current capabilities or timeliness to respond to an emergency. The EOF and JIC facilities are currently utilized by both stations. The responding EOF will be trained to respond to an emergency at either facility. There is precedent in the industry for this alignment. The change would not impact the effectiveness of the ERO to implement the NMP or JAF Emergency Plans.

3.4.3 Accountability and Assembly

The NMP Emergency Plan Annex discusses Assembly and Accountability to occur at the Alert level emergency in anticipation of emergency escalation. 10 CFR 50.54(b)(10) directs that *"A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public."* NUREG 0654, Rev 1 states *"Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter."* The NMP Emergency Plan Annex defines the Alert classification as *"Events of the Alert classification involve actual or potential degradation of the level of safety of the plant or a security event that involves probable life-threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any radioactivity released would result in exposures of only a small fraction of the guidelines for required offsite action."*

While NMP will maintain the capability to perform accountability of all individuals on site at all times, the station proposes to only require Accountability to occur at a Site Area Emergency or higher declaration. This is consistent with the NUREG 0654, Draft Rev 2 guidance which states under evaluation criteria J.4 *"The capability to account for all individuals inside the plant Protected Area following declaration of a SAE or GE is described. The names of missing individuals are ascertained within 30 minutes following the emergency declaration and accountability is maintained continuously thereafter."* The Draft NUREG recognizes that Accountability of personnel should be performed for emergencies consistent with a Site Area Emergency or General Emergency. Note that NMP will continue to perform evacuation and accountability for certain Security related Alert classifications.

The NMP Emergency Plan currently states that Evacuation of non-essential personnel will occur at the Alert level and Accountability may also be initiated. Given the experience in the industry, Alert declarations typically do not escalate to a Site Area Emergency or General Emergency, and evacuating or assembling the site personnel to support accountability, when it is not necessary is distracting and disruptive to the Operations crew responding to the Alert incident. Note that the Shift Emergency Director will continue to maintain the discretion to initiate

Accountability at the Alert level if deemed necessary based on the significance of the emergency event.

3.5 **Impact of Proposed Changes on State Emergency Plan**

3.5.1 **Potential Impact of ERO Changes on Off-Site Emergency Response Organizational Interfaces**

Exelon provided a draft copy of the License Amendment Request to representatives of Oswego County Emergency Management Office and the New York State Office of Emergency Management to provide the proposed changes to NMP's Emergency Plan.

Oswego County provided information via electronic mail dated July 3, 2018, and NYSOEM provided information via electronic mail dated July 25, 2018, stating they have reviewed the draft License Amendment Request. Refer to Enclosure 5, "Information Related to Review of Proposed Changes by the States," for a copy of the referenced State communications.

4.0 **REGULATORY EVALUATION**

4.1 **Applicable Regulatory Requirements/Criteria**

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met.

Section 50.47, "Emergency plans," of Title 10 of the *Code of Federal Regulations* (10 CFR) sets forth the U.S. Nuclear Regulatory Commission's (NRC) Emergency Plan requirements for nuclear power plant facilities. The regulation in 10 CFR 50.47(a)(1)(i) states, in part:

...no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Planning Standard (2) of this section requires that:

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

Section IV.A of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," states:

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:

- 1. A description of the normal plant operating organization.*
- 2. A description of the onsite emergency response organization (ERO) with a detailed discussion of:*
 - a. Authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;*
 - b. Plant staff emergency assignments;*
 - c. Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures.*
- 3. A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.*
- 4. Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections, and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, and other appropriate governmental entities.*
- 5. Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.*
- 6. A description of the local offsite services to be provided in support of the licensee's emergency organization.*
- 7. By June 23, 2014, identification of, and a description of the assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air,*

land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.

8. *Identification of the State and/or local officials responsible for planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.*
9. *By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.*

Revision 1 to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980, was intended to aid licensees, applicants for licenses, or State and local emergency response organizations in the development of their Radiological Emergency Response Plans. The NRC endorsed this document for use in this effort via Revision 2 to Regulatory Guide (RG) 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981. RG 1.101 allowed for licensees to submit alternatives to the guidance provided in NUREG-0654/FEMA-REP-1 for staff review and approval if necessary.

Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

Evaluation Criteria 5 of Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

- 10 CFR 50.54(q) establishes requirements that all holders of a nuclear power reactor operating license must follow and maintain in effect emergency plans which meet the planning standards in 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and

Utilization Facilities." 10 CFR 50.47 of 10 CFR, "Emergency plans," sets forth emergency plan requirements for nuclear power plant facilities.

- NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," provides guidance and acceptance criteria to provide a basis for NRC licensees, State and local governments to develop radiological emergency plans and improve emergency preparedness.
- Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," provides guidance related to emergency preparedness and specifically to making changes to emergency response plans.
- NRC Regulatory Issue Summary (RIS) 2005-02, Revision 1, "Clarifying the Process for Making Emergency Plan Changes," which provides guidance to (1) clarify the meaning of a "decrease in effectiveness," as stated in 10 CFR 50.54(q); (2) clarify the process for evaluating proposed changes to emergency plans; (3) provide a method for evaluating proposed changes to emergency plans; and (4) provide clarifying guidance on the appropriate content and format of applications submitted to the NRC for approval prior to implementation.
- NSIR/DPR-ISG-01, "Interim Staff Guidance, Emergency Planning for Nuclear Power Plants," provides guidance for addressing emergency planning requirements for nuclear power plants. This guidance is based on changes to Emergency preparedness regulations 10 CFR 50.47 and 10 CFR 50 Appendix E, that were published in the Federal Register (FR) on November 23, 2011 (i.e., reference 76FR 72560). The guidance should be used by licensees and applicants for implementing changes to onsite EP programs based on the revised emergency preparedness requirements and by NRC for reviewing the adequacy of the revised onsite emergency preparedness programs.

In addition, Exelon also reviewed the "Alternative Guidance for Licensee Emergency Response Organizations" finalized in the letter from the NRC to NEI, dated June 12, 2018, and draft RIS 2016-10, "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation" (ML15338A291), in support of this submittal.

Exelon has evaluated the proposed changes against the applicable regulatory requirements and guidance criteria. The proposed Emergency Plan changes continue to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

There is no industry precedent for licensees implementing changes based on the NRC's Alternative Guidance; however, there have been other ERO staffing amendments approved by the NRC within the last few years. Specifically, on March 14, 2017, the NRC approved Southern Nuclear Operating Company's License Amendment Request to standardize the Emergency Plans for the Joseph M. Farley, Edwin I. Hatch and Vogtle Nuclear Plant Stations which included changes to the ERO staffing (ML16141A109). Regarding Exelon stations, a revision to the Three Mile Island Emergency Plan related to ERO staffing was approved by the NRC on June 23, 2017 (ML17137A393).

4.3 No Significant Hazards Consideration

In accordance with 10 CFR 50.90, "*Application for amendment of license, construction permit, or early site permit,*" Exelon Generation Company, LLC (Exelon) requests amendments to the following licenses:

- DPR-63 and NPF-69 – Nine Mile Point Nuclear Station, Units 1 and 2, respectively

The requested amendments to the licenses support changes to the Nine Mile Point Nuclear Station (NMP) Emergency Plan based upon completion of a supporting evaluation of onsite Emergency Response Organization (ERO) staffing. The proposed changes will help align the Exelon nuclear stations minimum staff ERO with the "Alternative Guidance for Licensee Emergency Response Organizations" finalized in the letter from the NRC to NEI, dated June 12, 2018.

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 changes to the NMP Emergency Plan and determined that the 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 amendment involve a significant increase in the probability or consequences of an accident previously evaluated?*

Response: No.

The proposed changes to the NMP Emergency Plan do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the NMP Emergency Plan do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do 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 changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the NMP Emergency Plan do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

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 changes do 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 changes. Margins of safety are unaffected by the proposed changes to the ERO staffing. The proposed changes are associated with the NMP Emergency Plan staffing and do not impact operation of the plant or its response to transients or accidents. The proposed changes do not affect the Technical Specifications. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes to the Emergency Plan will continue to provide the necessary onsite ERO response staff.

Therefore, the proposed changes to the NMP Emergency Plan do 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 be maintained 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 changes are applicable to emergency planning standards for Nine Mile Point Nuclear Station (NMP) involving proposed ERO staffing changes. The proposed changes do not reduce the capability to meet the emergency planning standards established in 10 CFR 50.47 and 10 CFR 50, Appendix E. The proposed changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed changes.

Furthermore, in accordance with 10 CFR 51, additional information is provided below in support of a finding that the proposed changes do not have significant impact on the quality of the human environment.

Pursuant to 10 CFR 50.90, Exelon Generation Company, LLC (Exelon) is requesting amendments to the licenses for NMP, Units 1 and 2.

Specifically, the proposed changes would revise certain Emergency Response Organization (ERO) positions to align with the minimum staff ERO guidance specified in "Alternative Guidance for Licensee Emergency Response Organizations" finalized in the letter from the NRC to NEI, June 12, 2018.

The proposed changes will also relocate the identified Full Augmentation ERO positions specified in Figure 2-1, "*Minimum On-Site Staff Requirements*," of NMP's Emergency Plan to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, "*Emergency plans*," paragraph (b), 10 CFR 50 Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities*," and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, "*Conditions of licenses*," paragraph (q), "*Emergency plans*," determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

Exelon has determined that the proposed changes do not individually or cumulatively have a significant effect on the human environment. The proposed changes update the licensing basis for NMP related to ERO staffing consistent with guidance in the NRC's Alternative Guidance. The associated changes to the ERO staffing will not affect the quality of the human environment.

As described above, Exelon has determined that operation of the subject facilities in accordance with the proposed changes does not involve a significant hazards consideration, in that it does not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

Exelon has determined that operation of NMP in accordance with the proposed changes does not authorize a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite. The proposed changes are unrelated to any aspects of plant construction or operation that would introduce any changes to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, or other effluents) or affect any plant radiological or non-radiological effluent release quantities. Furthermore, these changes do not diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation.

Exelon has determined that operation of NMP in accordance with the proposed changes does not result in a significant increase in individual or cumulative occupational radiation exposure. The proposed changes will not affect how a structure, system, or component will be used to meet the design bases of the nuclear plant. The proposed changes will have no effect on the construction or operation of the nuclear plant and, therefore, would not introduce any changes to the amount of occupational radiation exposure.

In conclusion, Exelon has determined that the operational effects of the proposed amendment do not involve 1) a significant hazards consideration, 2) a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or 3) a significant increase in the individual or cumulative occupational radiation exposure. Consequently, the proposed changes will not have a significant effect on the quality of the human environment.

6.0 REFERENCES

- 6.1 NSIR/DPR-ISG-01, *"Interim Staff Guidance, Emergency Planning for Nuclear Power Plants,"* Revision 0, November 2011.
- 6.2 NEI 10-05, Revision 0, *"Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,"* dated June 2011.
- 6.3 NUREG-0654/FEMA-REP-1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,"* Revision 1, U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, Washington, DC, November 1980.
- 6.4 10 CFR 50.47, *"Emergency plans."*
- 6.5 10 CFR 50, Appendix E, *"Emergency Planning and Preparedness for Production and Utilization Facilities."*
- 6.6 Regulatory Issue Summary 2005-02, Revision 1, *"Clarifying the Process for Making Emergency Plan Changes,"* dated April 19, 2011.

- 6.7 Regulatory Guide 1.219, "*Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors*," dated November 2011.
- 6.8 Nine Mile Point Nuclear Station, Units 1, Updated Final Safety Analysis Report (UFSAR).
- 6.9 Nine Mile Point Nuclear Station, Units 2, Updated Final Safety Analysis Report (UFSAR).
- 6.10 Letter from NRC to NEI, "Alternative Guidance for Licensee Emergency Response Organizations", June 12, 2018.

ATTACHMENT 2A

Emergency Plan Marked-up Pages – Nine Mile Point Nuclear Station

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1013

Affected Pages

Standardized Emergency Plan EP-AA-1000

Mark-ups

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station and Corporate Emergency Director's responsibilities and authority until relieved ~~by a qualified Station Emergency Director.~~ The ~~Station-Corporate~~ Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures. ~~Final succession is achieved when the Corporate Emergency Director assumes overall Command and Control, and directs Exelon Nuclear's Emergency Response activities.~~

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). ~~Command and Control may be transferred directly to the Corporate Emergency Director, or transferred to the Station Emergency Director on an interim basis.~~ Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications. Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

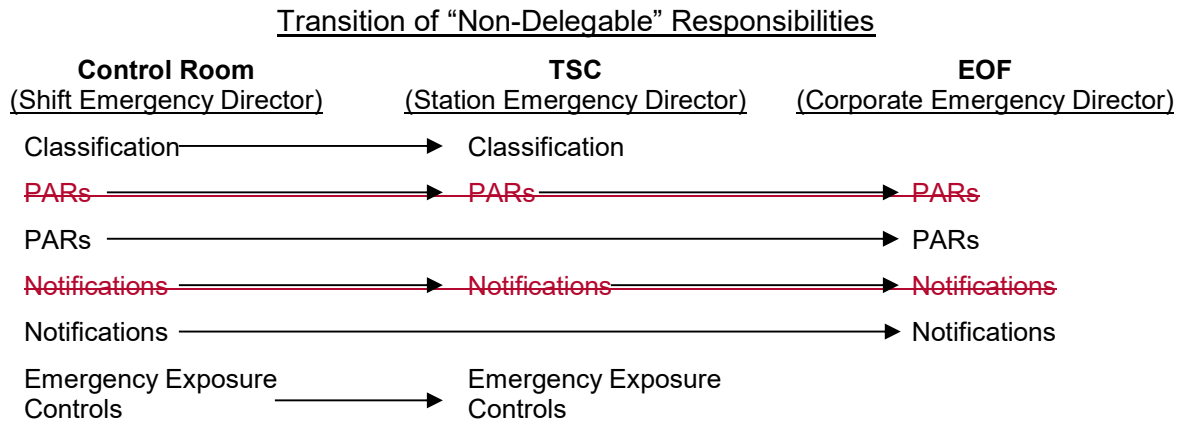
Non-delegable responsibilities include the following functions:

- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). Overall Command and Control is transferred to the ~~Station Emergency Director but may be transferred directly to the~~ Corporate Emergency Director.

~~When the~~ The Station Emergency Director assumes overall authority and responsibility for ~~Classification and Emergency Exposure Control~~ ~~performing all the non-delegable duties from the Shift Manager.~~ The Corporate Emergency Director (EOF) ~~will subsequently relieve the Station Emergency Director (TSC) of overall Command and Control and~~ ~~assumes~~ the non-delegable responsibilities for PAR determination and notifications to offsite authorities.



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within ~~the station specific Annex~~ this Emergency Plan, outlines ERO positions required to meet minimum staffing ~~and full augmentation~~ of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are ~~used as a planning basis to cover a wide range of possible events~~ described in Emergency Preparedness Implementing Procedures (EPIPs). For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)

- Firefighting
- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications
- ~~Initial Liaison responsibilities with Federal, state and local authorities~~

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. ~~The Technical Manager and/or another Other~~ qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director. ~~The responsibilities described for the Station Emergency Director applies to either the Shift Emergency Director or the Station Emergency Director depending on which individual is in Command and Control.~~

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew, ~~Operations Communicator and Damage Control Communicator in the Control Room.~~

2) Station Emergency Director TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities while in Command and Control:

- ~~Perform all non-delegable responsibilities as the Emergency Director in Command and Control until relieved by the EOF.~~
- **Activate the Facility**
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.

- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.

~~b) Station Emergency Director Responsibilities while not in Command and Control:~~

- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.
- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

~~3) TSC Director TSC~~

~~The TSC Director reports to the Station Emergency Director and is responsible for the content of information transmitted from the TSC to other agencies (or facilities) and for documenting information received at the TSC in coordination with the Station Emergency Director. Responsibilities include:~~

- ~~• Verify that qualified individuals are filling Communicator positions in the Control Room, TSC and OSC.~~

- ~~• Supervise the activities of the Logistics Coordinator and state/local Communicator.~~
- ~~• Ensure that communications are established with appropriate parties as directed by the Station Emergency Director.~~
- ~~• Ensure that all required notifications to offsite governmental agencies (state/local and NRC) are timely and accurate.~~
- ~~• Act as the Exelon Nuclear Liaison to any NRC Site Team Representatives.~~
- ~~• Ensure that the NRC Site Team Representatives are directed to their appropriate counterparts.~~
- ~~• Assist the Corporate Emergency Director in the acquisition of information for off-site agency updates.~~
- ~~• Record and relay inquiries to the Station Emergency Director. In addition, record responses to such inquiries prior to transmission.~~
- Assist the Station Emergency Director in maintaining proper records.

4) ENS Communicators CR/TSC/OSC

~~The Communicators are responsible for transmitting/receiving information to and from the TSC, OSC and Control Room. General rResponsibilities assigned to the ENS-all Communicators include:~~

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.

~~a) Specific responsibilities assigned to the State/Local Communicator include:~~

- ~~• Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate agencies prior to the EOF accepting Command and Control.~~
- ~~• Monitor NARS communications until released by the TSC Director.~~
- b) ~~Specific responsibilities assigned to the Damage Control Communicator include:~~
 - ~~• Relay requests from the Control Room and TSC for the dispatching of OSC Teams.~~
 - ~~• Apprise the station emergency response facilities of the status of OSC Team activities.~~
- c) ~~Specific responsibilities assigned to the Operations Communicator include:~~
 - ~~• Apprise the TSC and EOF staff of the overall plant condition and significant changes to system and equipment status.~~
 - ~~• Inform the Control Room, TSC, and EOF of significant changes in event status (e.g. changes in classification, command and control, initiation of station assembly, accountability, evacuation, etc.).~~
- d) ~~Specific responsibilities assigned to the TSC Technical Communicator include:~~
 - ~~• Establish and maintain contact with the EOF Technical Advisor.~~
 - ~~• Provide EOF with updates on technical support activities and priorities.~~
- e) ~~Specific responsibilities assigned to the ENS Communicator include:~~
 - Notify the NRC of changes in event classification, ~~prior to the EOF accepting Command and Control~~, and assist the EOF ~~ENS Communicator~~ in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
 - Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.
 - Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

~~f) Specific responsibilities assigned to the HPN Communicator include:~~

- ~~• Maintain continuous communications with the NRC, if requested, via the NRC Health Physics Network (HPN) phone or commercial telephone line.~~
- ~~• Communicate current Health Physics information to NRC representatives, as requested.~~
- ~~• Coordinate the communications of radiological information to the NRC with the EOF HPN Communicator (onsite vs. environmental data).~~

5) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist ~~the Maintenance Manager~~ in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.

- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ~~Operations Communicator and the~~ ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.
- At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

~~6) Technical Manager~~ ~~_____~~ ~~TSC~~

~~The Technical Manager reports to the Station Emergency Director and directs a staff in performing technical assessments of station emergencies and assists in recovery planning. Responsibilities include:~~

- ~~• Accumulate, tabulate and evaluate data on plant conditions.~~
- ~~• Evaluate plant parameters during an emergency to determine the overall plant condition.~~
- ~~• Coordinate core damage assessment activities.~~
- ~~• Identify data points and control parameters that the Operations staff should monitor.~~
- ~~• Ensure that current and adequate technical information is depicted on status boards.~~
- ~~• Identify and direct staff in the development of special procedures needed to effect long term safe shutdown or to mitigate a release.~~
- ~~• Supervise the total onsite technical staff effort.~~
- ~~• Act as the TSC liaison with state and appropriate NRC Site Team representatives.~~
- ~~• Assist the Radiation Protection Manager for onsite radiological/technical matters.~~
- ~~• Assist the Station Emergency Director in evaluating plant based PARs (prior to Corporate Emergency Director accepting command and control) and changes in event classification.~~
- ~~• Supervise the activities of the TSC Technical Communicator.~~

- ~~• Assume the duties and responsibilities of an Evaluator when transition to Severe Accident Management Guidelines (SAMG) is initiated and supervise the activities of the SAMG Evaluator Team~~

7) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

~~8) Logistics Coordinator TSC~~

~~The Logistics Coordinator reports to the TSC Director and provides administrative services in support of emergency/recovery operations. Responsibilities include:~~

- ~~• Coordinate shift relief and continual staffing of the station.~~
- ~~• Arrange for clerical staff at the TSC, OSC and Control Room.~~
- ~~• Assist the Security Coordinator in coordinating ERO and station activities in support of on-going security contingency, accountability or site/area evacuation efforts.~~
- ~~• Support the processing of special procedures and interim reports during an emergency.~~
- ~~• Ensure that event status and priority logs are being maintained in the TSC.~~
- ~~• Coordinate record keeping efforts at the station.~~
- ~~• Arrange for food, sleeping facilities and other necessary accommodations for onsite emergency workers.~~
- ~~• Arrange for specialized training of Emergency Response personnel as needed.~~

9) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director ~~and supervises the activities of the Radiation Controls Coordinator and Radiation Controls Engineer~~. The TSC RPM directs a staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- ~~Assist the Station Emergency Director in evaluating dose-based PARs (prior to Corporate Emergency Director accepting command and control) and changes in radiological event classification.~~
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.
- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

~~10) Radiation Controls Engineer (RCE) TSC~~

~~The Radiation Controls Engineer reports to the Radiation Protection Manager and coordinates the radiological and chemistry interface between the technical support engineering efforts. Responsibilities include:~~

- ~~• Monitor area and process radiation monitors to identify trends and potential hazards within the station.~~
- ~~• Evaluate plant environmental factors regarding radiological and other hazardous material conditions.~~
- ~~• Evaluate radiological and hazardous material surveys and chemistry sample results as appropriate.~~
- ~~• Direct the performance of sampling activities through coordination with the OSC Chemistry Lead in support of operations and core damage estimates as necessary.~~
- ~~• Coordinate radiological and chemistry information with the Core/Thermal Hydraulic Engineer in support of core damage assessment.~~

~~11) Radiation Controls Coordinator (RCC) TSC~~

~~The Radiation Controls Coordinator reports to the Radiation Protection Manager. The RCC coordinates site and in-plant Radiation Protection response activities through the OSC Radiation Protection Lead. Responsibilities include:~~

- ~~• Support the OSC Radiation Protection Lead in the dispatching of OSC Teams.~~
- ~~• Assist the Operations Manager in planning radiological controls for personnel dispatched from the Control Room.~~
- ~~• Ensure the proper use of protective clothing, respiratory protection, and access controls in the plant as appropriate to control personnel exposure.~~
- ~~• Monitor habitability concerns impacting access to plant and site areas.~~
- ~~• In coordination with the OSC Radiation Protection Lead, assemble and dispatch the Field Monitoring Teams as required.~~
- ~~• Supervise the activities of the HPN Communicator in the TSC.~~
- ~~• Request additional Radiation Protection personnel and/or equipment, as necessary in support of station activities and staff relief.~~

- ~~Prior to EOF Protective Measures Group staffing:~~
 - ~~Perform dose assessments and provide appropriate dose-based PARs.~~
 - ~~Coordinate Field Monitoring Team activities.~~
 - ~~Monitor meteorological conditions and remain cognizant of forecast data.~~
- ~~Following EOF Protective Measures Group staffing:~~
 - ~~Transfer control of the Field Monitoring Teams to the EOF Environmental Coordinator when appropriate.~~
 - ~~Transfer responsibility of dose assessment activities to the EOF Dose Assessment Coordinator.~~
 - ~~Assist the EOF Environmental Coordinator in the acquisition of information for the off-site agency updates.~~

~~12) Maintenance Manager _____ TSC~~

~~The Maintenance Manager reports to the Station Emergency Director and directs a staff in providing labor, tools, protective equipment and parts needed for emergency repair, damage control and recovery efforts to place the plant in a safe condition or return the plant to its pre-accident status. Responsibilities include:~~

- ~~Direct the total onsite maintenance and equipment restoration effort.~~
- ~~Request additional equipment in order to expedite recovery and restoration.~~
- ~~Supervise the activities of the OSC Director and the TSC Damage Control Communicator.~~
- ~~Ensure the Operations Manager is informed of OSC staffing utilization and activities.~~
- ~~In coordination with the Operations Manager, determine the priority assigned to OSC activities.~~
- ~~Ensure adequate staffing of the OSC.~~
- ~~Assist in rescue operations.~~
- ~~Identify required procedures that need to be written or implemented in support of the response efforts.~~

13) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

14) Operations Support Center Director OSC

The OSC Director reports to the ~~Maintenance Manager~~ Emergency Director and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - ~~Operations~~ I&C Maintenance
 - Mechanical Maintenance
 - Electrical/~~H&C~~ Maintenance
 - Radiation Protection

- ~~Chemistry~~

- Coordinate with ~~the OSC~~ Operations ~~Lead~~ in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

15) ~~Assistant Operations Support Center Director~~ _____ ~~OSC~~

~~The Assistant OSC Director reports to the OSC Director and supports the OSC Director in supervising the activities of personnel reporting to the OSC. The Assistant OSC Director may be filled by an OSC Lead, normally the Radiation Protection Lead. Responsibilities include:~~

- ~~• Assist the OSC Director in supervising personnel assigned to the OSC.~~
- ~~• Assist in formation of Field Monitoring Teams as directed by the TSC.~~
- ~~• Assist in formation of sampling teams.~~
- ~~• Ensure that records of in-plant survey information and radiochemistry results are maintained.~~
- ~~• Ensure that accumulated exposure records for all essential onsite personnel are maintained.~~
- ~~• Coordinate with the OSC Leads to organize in-plant teams to support station priorities.~~
- ~~• Ensure that in-plant team dispatch briefings include expected activities and radiological hazards.~~
- ~~Ensure that periodic facility briefings are conducted on plant radiological conditions.~~

16) OSC Leads _____ OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection
- ~~Chemistry~~
- ~~Operations (on-shift Supervising Operator or designated Operations representative)~~

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.
- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

~~1) Nuclear Duty Officer (NDO)~~

~~The NDO is the Exelon Nuclear individual who acts as the initial Corporate contact for declared events. Responsibilities include:~~

~~a) Actions for all classified events:~~

- ~~• Contact the affected station to verify and obtain updated information concerning emergency response actions and event status.~~
- ~~• Notify Exelon Nuclear Executives of event.~~
- ~~• Provide information on the event to State Duty Officers, if requested.~~
- ~~• Notify the on-call Exelon Communications and Public Affairs Representative.~~
- ~~• Prior to EOF activation, review any news releases for accuracy.~~

~~b) Actions for Alert classifications and above:~~

- ~~• Complete all actions as listed above.~~
- ~~Notify American Nuclear Insurers (ANI) prior to being transferred to the EOF.~~

2) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

~~3) EOF Director _____ EOF~~

~~The EOF Director reports to the Corporate Emergency Director and has the authority, management ability and technical knowledge to assist the Corporate Emergency Director in the management of Exelon Nuclear's offsite ERO.~~

~~In the event that the Corporate Emergency Director becomes incapacitated, the EOF Director shall assume the responsibilities of the Corporate Emergency Director until a transfer of Command and Control can be effected either back to the station or to another qualified Corporate Emergency Director. Responsibilities include:~~

- ~~• Direct and coordinate the activation and response efforts of the EOF staff in support of the Corporate Emergency Director.~~
- ~~• Evaluate the need to augment the EOF staff based on events in progress.~~
- ~~• Assess the effectiveness of ongoing EOF working relationships.~~
- ~~• Monitor information flow within the EOF to ensure that facility activities remain coordinated.~~
- ~~• Prepare state/local notification forms with the assistance of the EOF Radiation Protection Manager and the Technical Support Manager.~~
- ~~• Coordinate services as necessary to support EOF operations.~~
- ~~• Coordinate with the Administrative Coordinator for continual shift staffing requirements.~~
- ~~• Assist in the conduct of Corporate Emergency Director duties.~~
- ~~• Act as the designated alternate for approval of the technical content of Exelon Nuclear Press Releases and information released to the News Media.~~
- Act as purchasing agent in support of the TSC for contract negotiation/administration.

~~4) Technical Support Manager _____ EOF~~

~~The Technical Support Manager reports to the EOF Director and directs the activities of the Technical Support Group. Responsibilities include:~~

- ~~• Assist the Corporate Emergency Director in monitoring changes in event classification.~~
- ~~• Assist the Corporate Emergency Director in determining plant-based PARs when necessary.~~

- ~~• Provide information to the EOF Director for completing the state/local notification form.~~
- ~~• Provide the Corporate Emergency Director information concerning the status of plant operations, and recommendations for mitigating the consequences of the accident.~~
- ~~• Coordinate the overall Exelon Nuclear engineering support from corporate staff and unaffected stations.~~
- ~~• Interface with Industry and contractor engineering support organizations.~~
- ~~• Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impacts or potentially impacts the offsite environment or PARs.~~
- ~~• Provide technical information on facility and system design.~~
- Assist in the development of post-accident recovery measures.

5) Operations Advisor _____ EOF

The Operations Advisor reports to the Technical Support Manager, directs the ENS Communicator, and is responsible for obtaining and analyzing plant status information and ensuring that it is disseminated. Specific responsibilities include:

- ~~• Monitor the Operations Status Line to keep apprised of:
 - ~~— Control Room activities including progress on Emergency Operating Procedures.~~
 - ~~— Significant changes in plant system/equipment status and critical parameters.~~
 - ~~— Possible changes in event classification.~~~~
- ~~• Identify and track critical parameters for the identification and trending of current plant status information.~~
- ~~• Assist the station in identifying Operations resources from corporate staff or unaffected stations for direct support of plant shift operations personnel.~~
- ~~• Assist the ENS Communicator in the completion of the NRC Event Notification Worksheet and in responding to NRC inquiries.~~
- Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impact or potentially impact the offsite environment or PARs.

~~6) ENS Communicator _____ EOF~~

~~The ENS Communicator reports to the Operations Advisor. Specific responsibilities include:~~

- ~~• Notify the NRC of changes in event classification. Generally, the TSC ENS Communicator focuses on real time plant operations and the EOF ENS Communicator focuses on notifications following changes in event classification and overall changes in event response or status.~~
- ~~• Establish and maintain continuous communications with the NRC, if requested, via the NRC-ENS phone or commercial telephone line.~~
- Coordinate NRC communications with the ENS Communicator in the TSC.

~~7) Technical Advisor _____ EOF~~

~~The Technical Advisor reports to the Technical Support Manager and is responsible for obtaining and analyzing technical support information, accident mitigating activities and priorities and ensuring that it is disseminated. Responsibilities include:~~

- ~~• Monitor the Technical Conference Line to remain aware of TSC technical support activities, strategies and priorities.~~
- ~~• Assist the Dose Assessment Coordinator in acquiring technical information pertaining to release pathway and core damage assessment.~~
- ~~• Supervise the activities of the Events Recorder.~~

~~8) Events Recorder _____ EOF~~

~~The Events Recorder reports to the Technical Advisor. Responsibilities include:~~

- ~~• Gather/record approved information on status boards as requested.~~
- Maintain an event chronology/status log.

~~9) Radiation Protection Manager _____ EOF~~

The Radiation Protection Manager ~~reports to the EOF Director and~~ directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the ~~EOF~~ Emergency Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the ~~EOF~~Emergency Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel ~~and the HPN Communicator~~.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

~~10) Environmental Coordinator _____ EOF~~

~~The Environmental Coordinator reports to the EOF Radiation Protection Manager and directs the Field Team Communicator, Field Monitoring Teams and the State Environs Communicator. Responsibilities include:~~

- ~~• Coordinate the transfer of control of the Field Monitoring Teams if initially under the direction of the TSC Radiological Controls Coordinator.~~
- ~~• Ensure communications are established with the TSC to obtain information on the accident conditions, meteorological conditions and estimates of radioactive material releases.~~
- ~~• Maintain cognizance of Field Monitoring Team exposure. When warranted, ask the Dose Assessment Coordinator to initiate an evaluation of the need for administering KI to Exelon nuclear workers.~~
- ~~• Determine needs of the Dose Assessment Coordinator, the Dose Assessor, the HPN Communicator and the State Environs Communicator(s) for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.~~
- ~~• Upon request, provide environmental data to Emergency Public Information personnel.~~
- ~~• Evaluate and coordinate additional equipment and personnel as necessary from unaffected stations to augment and/or relieve station Field Monitoring Teams.~~

~~11) State Environs Communicator _____ EOF~~

~~The State Environs Communicator is staffed as requested by the applicable state agencies. The State Environs Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• As needed, obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Coordinate activities and information flow between the EOF Protective Measures Group and the affected state(s) environmental authorities, including periodic updates on meteorological conditions, Field Monitoring Team activities and survey/sample results.~~
- ~~• Ensure that the Environmental Coordinator is aware of state environmental activities and sample results.~~

~~12) Field Team Communicator EOF~~

~~The Field Team Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Establish and maintain contact with the dispatched Field Monitoring Teams.~~
- ~~• Document the Environmental Coordinator's instructions and then relay this information to the Field Monitoring Teams.~~
- ~~• Document environmental data reported by the Field Monitoring Teams.~~
- ~~• Periodically obtain and document information on Field Monitoring Team radiological exposure.~~
- ~~• Promptly report new environmental or Field Monitoring Team exposure data to the Environmental Coordinator.~~
- Document questions and answers directed to and received from the Field Monitoring Teams. Ensure the Environmental Coordinator is cognizant of these information requests and relay replies to these requests.

13) Dose Assessment Coordinator EOF

The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager ~~and directs the activities of the Dose Assessor and the HPN Communicator.~~ Responsibilities include:

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers ~~when requested by the Environmental Coordinator.~~
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, ~~the HPN Communicator, and the State Environs Communicators.~~

~~14) Dose Assessor _____ EOF~~

~~The Dose Assessor reports to the Dose Assessment Coordinator. Responsibilities include:~~

- ~~• Perform dose projections using the Dose Assessment computer models as directed by the Dose Assessment Coordinator.~~
- Monitor meteorological and plant effluent conditions.
- ~~• Notify the Dose Assessment Coordinator of meteorological changes that may impact identification of downwind areas.~~
- ~~• Evaluate the need for administering KI to Exelon nuclear workers when requested by the Dose Assessment Coordinator.~~
- Coordinate Field Monitoring Team activities

~~15) HPN Communicator _____ EOF~~

~~The HPN Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Provide updates and respond to inquiries from the NRC on offsite environmental data, release status, dose projections and changes to PARs for the general public.~~
- ~~• Obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Maintain continuous communications with the NRC, if requested, via the NRC HPN phone or commercial telephone line.~~
- ~~• Communicate current Health Physics information to NRC representatives, as requested.~~

~~16) Logistics Manager _____ EOF~~

~~The Logistics Manager reports to the EOF Director and directs the activities of the administrative, security and liaison personnel. Responsibilities include:~~

- ~~• Ensure contact is made and communications are maintained with appropriate Non-Exelon Nuclear personnel whose assistance may be required to terminate the emergency conditions and to expedite the recovery.~~
- ~~• Advise the EOF Director concerning the status of activities relating to governmental interfaces.~~

- ~~Obtain support from Human Resources, the Comptroller's Office, the Legal Department, Accounting Department and others as required.~~
- ~~Coordinate with the Nuclear Duty Officer to maintain communications with ANI and INPO.~~
- ~~Ensure that access to the EOF is limited to Emergency Responders and authorize admittance to non-Exelon personnel.~~
- ~~Implement the Exelon Nuclear Fitness for Duty Program.~~
- ~~Ensure that NRC Site Team Representatives are directed to the Regulatory Liaison upon arrival at the EOF.~~
- ~~Ensure that updates and information are provided to the EOC Liaisons and to offsite officials present in the EOF.~~
- ~~Assist in obtaining and coordinating additional equipment/materials and /or technical expertise to support station requests, including Exelon Corporate staff, unaffected stations and vendor/contractors.~~
- ~~Coordinate maintenance of EOF equipment as necessary.~~
- ~~Ensure shift relief and continual staffing for the EOF.~~

17) Administrative Coordinator EOF

The ~~Administrative Coordinator~~ reports to the ~~Logistics Manager~~. Responsibilities include:

- ~~Direct the activities of the Computer Specialist.~~
- ~~Direct the clerical staff and ensure the clerical requirements for the other EOF and JIC staff are met.~~
- ~~Obtain clerical support for the EOF and JIC.~~
- ~~Coordinate shift relief and continual staffing for the EOF.~~
- ~~Obtain services as appropriate to support operation of the EOF.~~

18) Computer Specialist EOF

The Computer Specialist reports to the ~~Administrative Coordinator~~ ~~Emergency Director~~. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.

- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

~~19) Security Coordinator _____ EOF~~

~~The Security Coordinator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Provide and interpret information on security events.~~
- ~~• Assist with access control activities at the EOF and JIG.~~
- ~~• Perform the following in support of the TSC Security Coordinator:~~
 - ~~— Provide assistance in resolving security events.~~
 - ~~— Assist as a liaison for local, state and federal law enforcement agencies during security related events.~~
 - ~~— Serve as the primary contact to the security force for additional support, if necessary, during a security event.~~
- ~~• Obtain additional resources to support access control measures needed at the EOF and JIG.~~

20) State/Local Communicator _____ EOF

The State/Local Communicator reports to the ~~Logistics Manager~~Emergency Director. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.
- ~~• Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~21) EOC Communicator _____ EOF~~

~~The EOC Communicator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Coordinate and dispatch EOC Liaisons as needed or requested.~~
- ~~• Establish and maintain periodic contact with each location where Exelon Nuclear EOC Liaisons have been dispatched.~~
- ~~• Ensure EOC Liaisons are provided event information and notifications.~~

- ~~Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~22) County EOC Liaison(s) _____ County EOCs~~

~~The County EOC Liaison(s) will be dispatched to County Emergency Operations Centers (EOCs) based on established agreements with the counties. The County EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report County EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions.~~
- ~~Provide simplified explanations to EOC personnel of technical details distributed through approved channels.~~
- ~~Assist with confirmation/verification of information distributed through approved channels.~~
- ~~Provide media at the EOC with approved Exelon Nuclear press releases.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~23) State EOC Liaison(s) _____ State EOCs~~

~~At the request of state officials and/or at the discretion of the Corporate Emergency Director, Exelon Nuclear will provide Liaison personnel to state Emergency Operation Centers (EOCs). The state EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report state EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions as requested.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~24) Regulatory Liaison _____ EOF~~

~~The Regulatory Liaison reports to the Logistics Manager. Responsibilities include:~~

- ~~Coordinate interfaces between Exelon Nuclear personnel and governmental agencies within the EOF.~~
- ~~Obtain necessary equipment and supplies to support activities of governmental agencies located in the EOF.~~
- ~~Act as the Exelon Nuclear Liaison to the NRC Site Team representatives.~~

c. Public Information Emergency Response Organization1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

~~2) Technical Spokesperson JIC~~

~~The Technical Spokesperson reports to the Corporate Spokesperson. Responsibilities include:~~

- ~~• Assist in development of technical and plant status information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

~~3) Radiation Protection Spokesperson JIC~~

~~The Radiation Protection Spokesperson reports to the Corporate Spokesperson. Responsibilities include.~~

- ~~• Assist in development of environmental and health physics information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

4) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.
- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- ~~• Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.~~
- ~~• Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~

- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

5) ~~JIC Coordinator~~ _____ ~~JIC~~

~~The JIC Coordinator reports to the JIC Director and supervises the facilities support staff. Responsibilities include:~~

- ~~• Ensure the JIC is activated and operational. This includes the availability of communications and visual aids.~~
- ~~• Ensure that access to the JIC areas occupied by Exelon personnel is controlled.~~
- ~~• Establish a minimum frequency for addressing news media/public representatives and ensure that some form of communication occurs within that time frame (i.e., an update at least hourly.)~~
- ~~• Ensure that approved News Releases and Chronological Event Description Logs are made available in the JIC.~~
- ~~• Document unanswered questions and serious public misinformation issues. Follow-up on these questions and issues to ensure that they are being adequately addressed.~~
- Coordinate the interface between Exelon Nuclear and the news media/public, including, as necessary, briefings, news conferences, interviews and responses to information requests.

7) ~~Administrative Coordinator~~ _____ ~~JIC~~

~~The Administrative Coordinator reports to the JIC Director. Responsibilities include:~~

- ~~• Coordinate with the EOF Administrative Coordinator to ensure the clerical requirements for the other JIC staff are met.~~
- ~~• Coordinate shift relief and continual staffing for the JIC.~~
- ~~• Obtain services as appropriate to support operation of the JIC.~~

~~8) Access Controller _____ JIC~~

~~The Access Controller reports to the JIC Director and is responsible for controlling facility access and obtaining authorization prior to admitting non-Exelon Nuclear officials into the JIC.~~

9) Public Information Director (PID) _____ JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. ~~The Public Information Director may perform this function at remote locations. The Public Information Director supervises the activities of the, News Writer, Events Recorder and media monitoring and rumor control personnel.~~ Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- ~~Coordinate with the Media Monitoring Staff to r~~Review and access media coverage of the emergency event.

~~10) News Writer _____ JIC~~

~~The News Writer reports to the Public Information Director. Responsibilities include:~~

- ~~Compose draft news releases with assistance from the Technical Spokesperson and the Radiation Protection Spokesperson.~~
- ~~Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~

~~11) Events Recorder _____ JIC~~

~~The Events Recorder reports to the Public Information Director. Responsibilities include:~~

- ~~• Develop a chronological event description log.~~

~~12) Media Monitoring Staff _____ JIC~~

~~The Media Monitor reports to the Public Information Director. Responsibilities include:~~

- ~~• Ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.~~
- ~~• Inform the Public Information Director of all media reports and of actions taken to correct any misinformation or rumors.~~
- ~~• Direct the activities of the Rumor Control Staff with respect to the function of monitoring rumors from sources other than the media.~~

~~13) Rumor Control Staff _____ JIC~~

~~The Rumor Control Staff reports to the Public Information Director and acts in support of the Media Monitors. Responsibilities include:~~

- ~~• Ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully activated, document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~
- ~~• Inform the Media Monitors when rumors representing serious misinformation are encountered.~~

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained ~~within the station specific Annexin Appendix 5~~, lists the key positions of the ERO ~~and the supporting positions assigned to interface with federal, state, and county authorities~~. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. **These positions are further described in the EPIPs.**

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC **Corporate Spokespersons**. The ENC function may be located at either the EOF or the JIC.

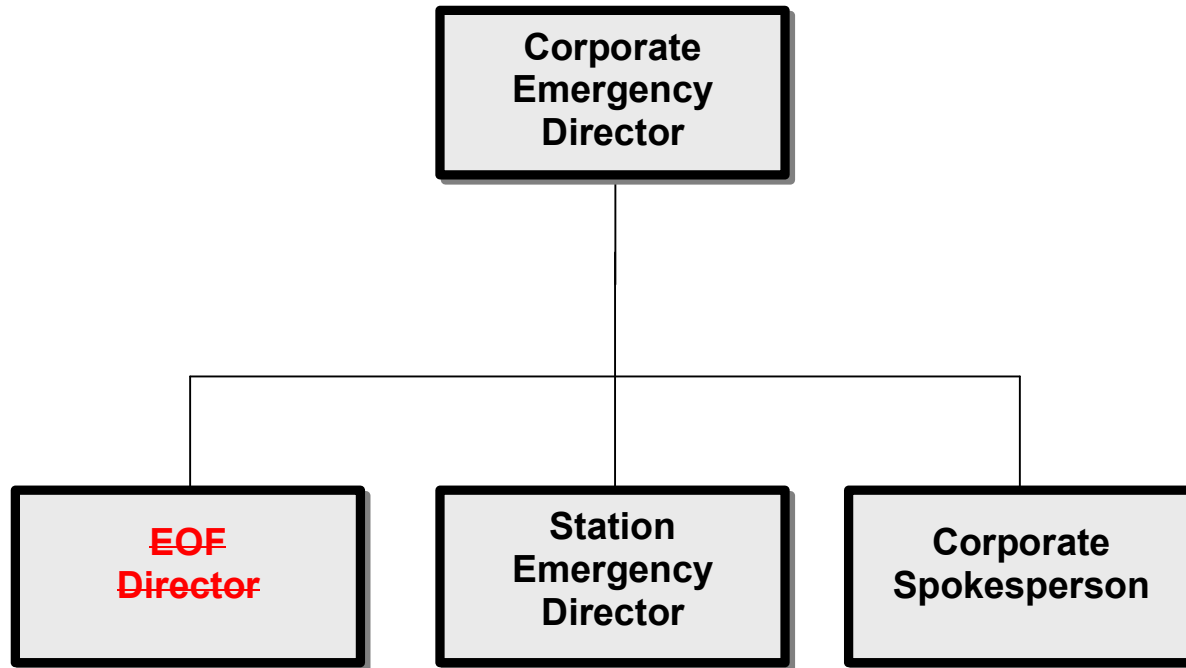
The ~~Corporate ERO EOF~~ is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the ~~Station Shift~~ Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. ~~The EOF may also function in a supporting role to the station when the Station Emergency Director maintains Command and Control.~~ The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

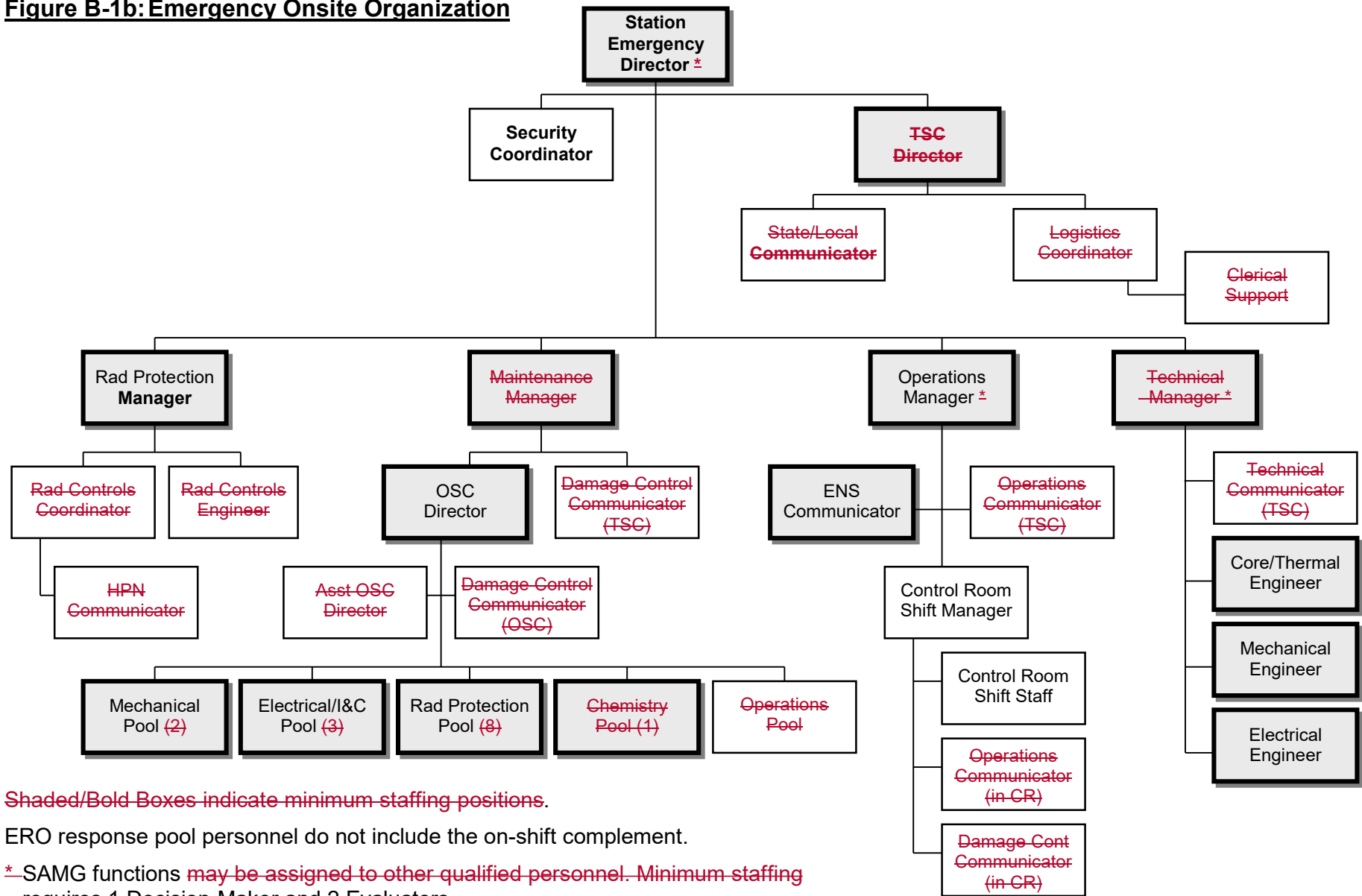
- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:
 - Assistance to the affected utility in locating sources of emergency personnel, equipment and operational analysis.
 - INPO, Electric Power Research Institute (EPRI) and Nuclear Energy Institute (NEI) maintain a coordination agreement on emergency information with their member utilities.
 - INPO provides the "Nuclear Network", or its replacement, electronic communications system to its members, participants, NEI, and EPRI to coordinate the flow of media and technical information about the emergency.

Figure B-1a: Exelon Overall ERO Command Structure



Shaded/Bold Boxes indicate minimum staffing positions.

Figure B-1b: Emergency Onsite Organization

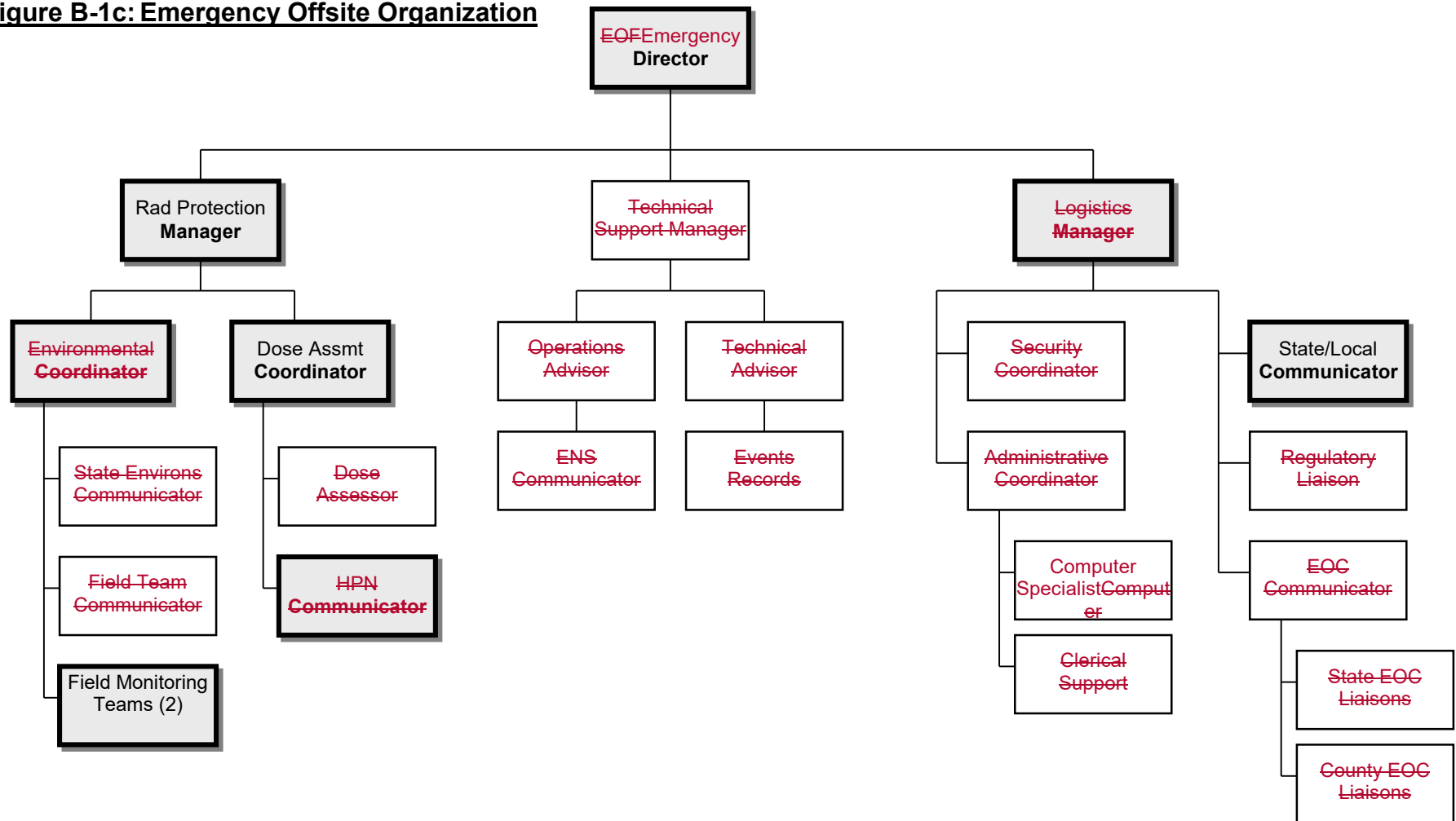


Shaded/Bold Boxes indicate minimum staffing positions.

ERO response pool personnel do not include the on-shift complement.

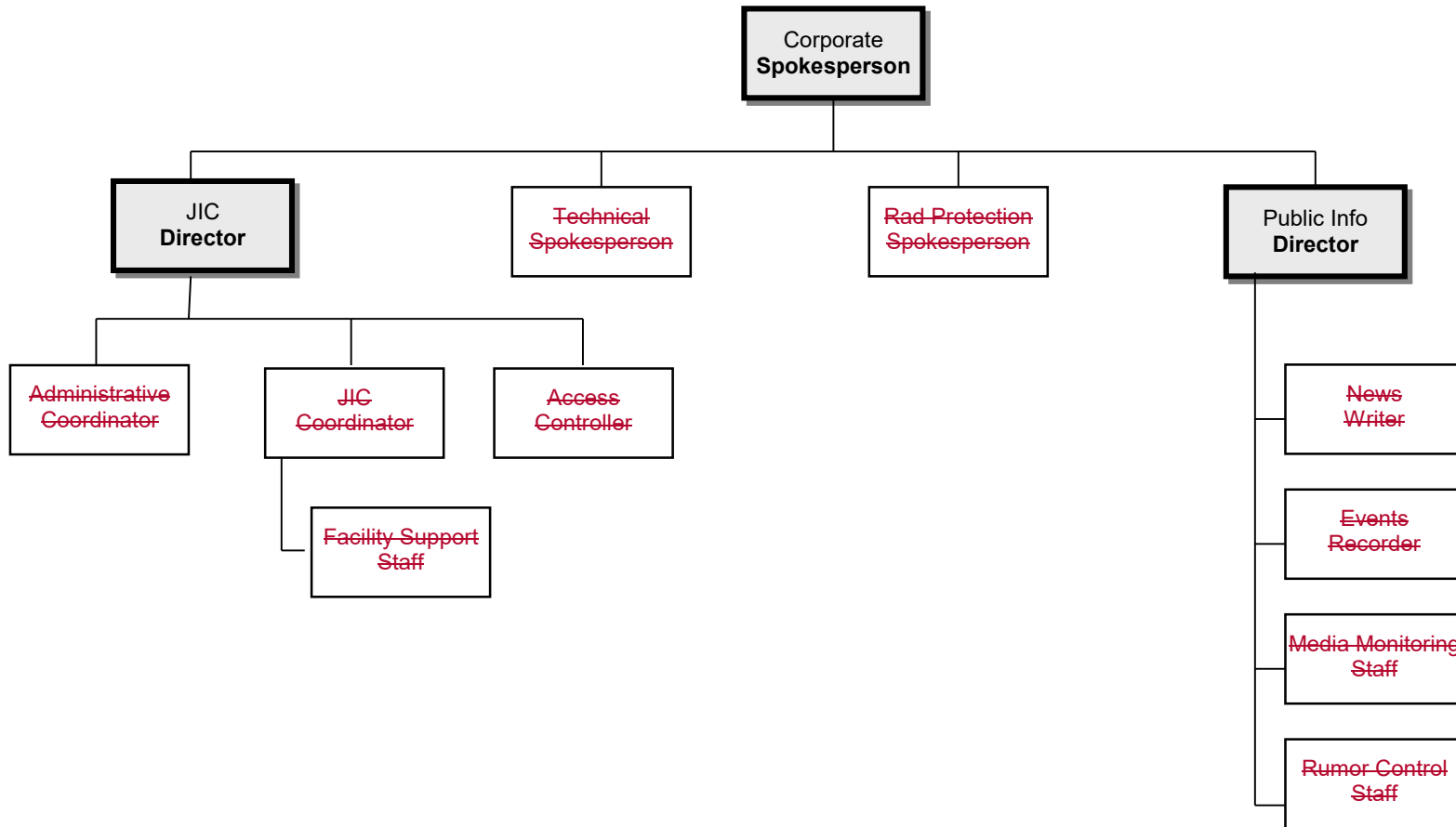
* SAMG functions may be assigned to other qualified personnel. Minimum staffing requires 1 Decision-Maker and 2 Evaluators.

Figure B-1c: Emergency Offsite Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

Figure B-1d: Emergency Public Information Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.

f. NRC Communications (ENS ~~and HPN~~)

Communications with the NRC Operations Center will be performed via the NRC ENS ~~and HPN~~ circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS ~~and/or HPN line~~.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

~~Health Physics Network (HPN): There also exists a separate dedicated telephone between the NRC, the TSC, and EOF for conveying health physics information to the NRC as requested or as an open line.~~

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

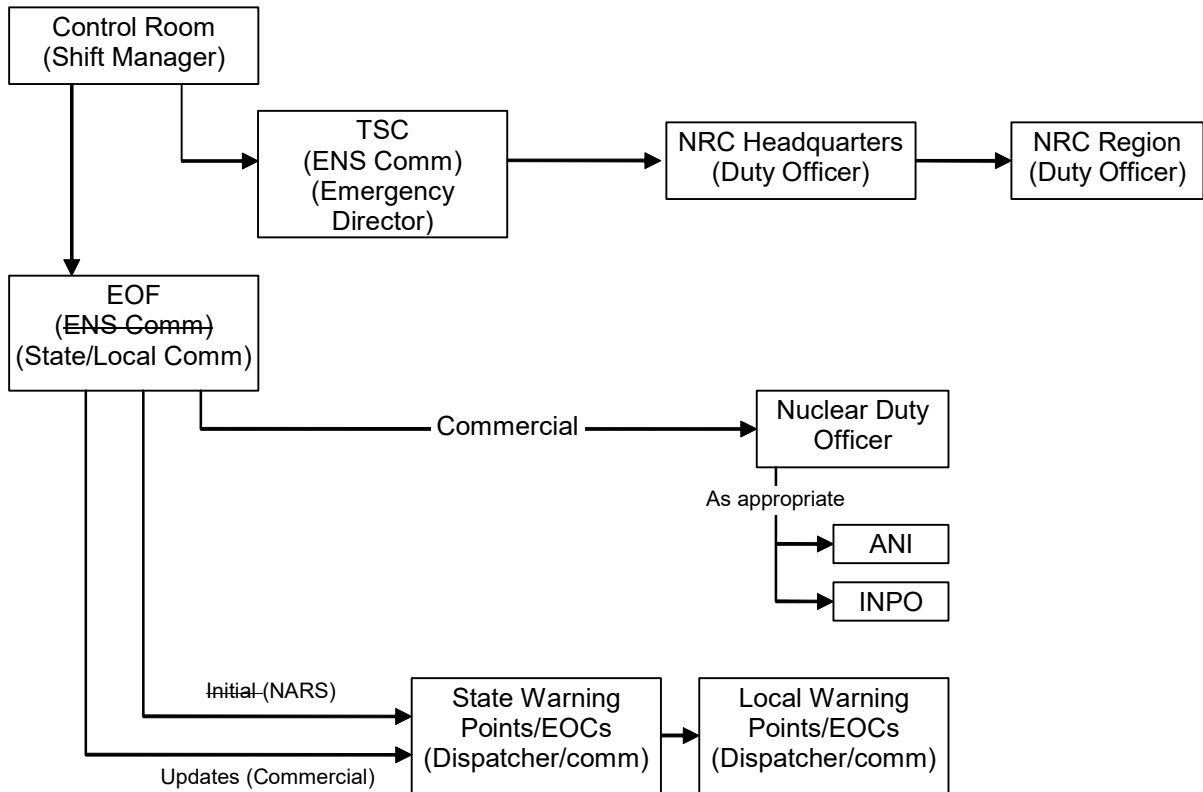
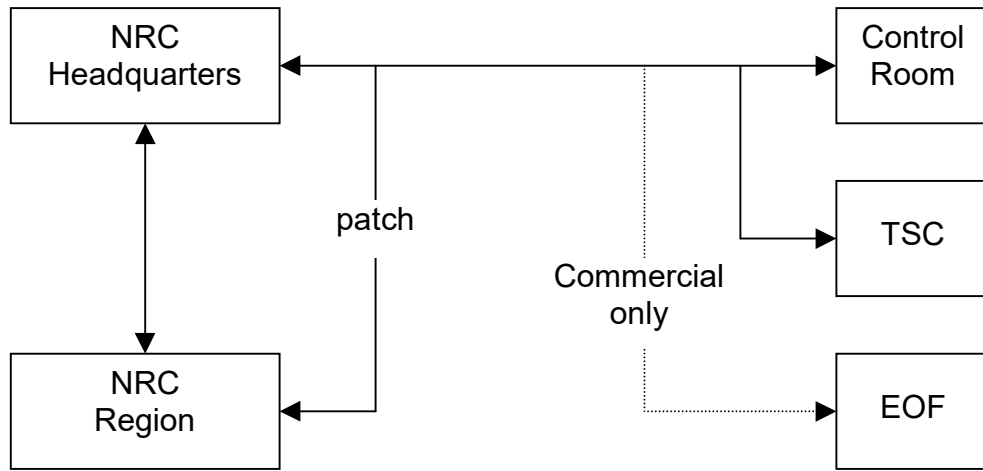


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS ~~and HPN~~ circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through ~~Media Monitoring Staff~~ telephones that the media can call for information about an emergency.
- b. The news media is not permitted into the EOF during an emergency.

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~~JIC Staff. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - ~~Chemistry Personnel,~~
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

~~Although the minimum staffing criteria applies to the JIC, the activation time is not applicable. Public Information personnel must first coordinate the decision to activate the JIC with the appropriate offsite authorities.~~

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
- Radiation Protection
- ~~Chemistry~~
- Maintenance (mechanical, electrical and I&C)

- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift] (OSC)	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift and those responding within 60 min.] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1013

Mark-ups

EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR NINE MILE POINT STATION

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Section 1: Introduction.....	1-1
1.1 Purpose.....	1-1
1.2 Emergency Organization.....	1-1
Section 2: Organizational Control of Emergencies.....	2-1
2.1 Typical Nuclear Division / Station Organization.....	2-1
2.2 On-Shift Emergency Response Organization Assignments	2-2
2.3 Authority Over the Emergency Response Organization	2-2
2.4 Criteria for Assuming Command and Control (Succession)	2-2
2.5 Non-Delegable Responsibilities	2-3
2.6 Emergency Response Organization Positional Responsibilities	2-3
2.7 Emergency Response Organization Block Diagram	2-4
2.8 Corporate Emergency Response Organization	2-4
2.93 Industry/Private Support Organizations.....	2-4
2.104 Coordination with Participating Government Agencies	2-5
Figure 2.1 Minimum Staffing Requirements for the ERO	2-7
Figure 2.2 ERO Management Structure	2-11
Figure 2.3 TSC Staffing.....	2-12
Figure 2.4 OSC Staffing	2-13
Figure 2.5 EOF Staffing.....	2-14
Figure 2.6 JIC Staffing	2-15
Section 3: Emergency Conditions	3-1
3.1 Classification System	3-1
3.2 Spectrum of Postulated Accidents	3-3
Figure 3.1 Required Actions and Participation by Response Organizations for Various Emergency Classes.....	3-4
Section 4: Emergency Measures	4-1
4.1 Initiation of Emergency Actions.....	4-1
4.2 Activation of Emergency Organization	4-2
4.3 Assessment Actions.....	4-4
4.4 Assessment Capabilities	4-7
4.5 Dose Assessment Methods and Techniques	4-8

Section 8: Acronyms and Definitions..... 8-1

 8.1 Acronyms 8-1

 8.2 Definitions 8-3

APPENDICES

- 1. NUREG-0654/FEMA-REP-1 Cross Reference Index
- 2. Letters of Agreement
- 3. Emergency Plan Implementing Procedures
- ~~4. Emergency Response Organization Responsibilities~~
- 54. Oswego County Radiological Emergency Response Plan and New York State Radiological Emergency Response Plan
- 65. Typical Additional Support Resources
- 76. Resource Material
- 87. Emergency Plan Commitments

ADDENDUMS

- Addendum 1, Nine Mile Point Station On-Shift Staffing Analysis Report
- Addendum 2, Evacuation Time Estimates for the James A. Fitzpatrick/Nine Mile Point Emergency Planning Zone
- Addendum 3, Unit 1 Emergency Action Levels for Nine Mile Point Station
- Addendum 4, Unit 2 Emergency Action Levels for Nine Mile Point Station

1.3 Interrelationship Between Emergency Plan and Other Procedures

Interrelationship of this Station Annex with other procedures, plans and emergency arrangements is necessary to ensure an effective response organization. These interrelated documents include:

- a. Nine Mile Point Nuclear Station Emergency Plan Implementing Procedures are designed to detail specific actions required by Station personnel in response to radiological and non-radiological emergency conditions. A listing of these procedures is contained in Appendix C.
- b. Operating Procedures (OP), Emergency Operating Procedures (EOP) Special Operating Procedures (SOP), and Severe Accident Procedures (SAP) detail immediate and subsequent operator actions in response to various system transients. These operating procedures are coordinated with the Station Annex and its implementing procedures to ensure appropriate actions are taken on a timely basis.
- c. Station Chemistry Department and Radiation Protection Department Procedures define health physics requirements for the control and handling of radioactive materials, personnel decontamination, and respiratory protection, sampling techniques, radiation survey techniques and radiation exposure guidelines. Selected procedures, which are applicable to both normal and emergency conditions, are used in conjunction with the Station Annex and its implementing procedures.
- d. Station Physical Security and Fire Protection Plans and their implementing procedures, provide overall guidance and specific instructions to Nuclear Security and Station personnel for emergencies involving security or fire. These plans and procedures are coordinated with the Station Annex and its implementing procedures to ensure compatibility, and with Offsite Plans to ensure prompt access for Offsite Response Organization Responders when necessary.
- e. The Oswego County Radiological Emergency Preparedness Plan and the New York State Radiological Emergency Preparedness Plan, in conjunction with this Station Annex and its implementing procedures, provide for early and redundant notification schemes, continued assessment and update of radiological conditions, and the coordination of onsite and offsite protective actions.

The concept of operations, and its relationship to the Federal, State, local and private organizations that are part of the overall emergency response organizations, is described in ~~the Exelon Nuclear Standardized Emergency Plan, EP-AA-1000 Section 2.0 and 4.0.~~ A block diagram, which illustrates these interrelationships, is included in ~~Station Annex, Figures 4.1-4.3, Emergency Organizations Interfaces EP-AA-1000.~~ Illustrations of how the interfaces between various segments of response organizations change during various phases of emergency and recovery operations are shown in Station Annex, Section 4.

Section 2: Organizational Control of Emergencies

This section **in conjunction with EP-AA-1000**, describes the Exelon Emergency Response Organization (ERO) at Nine Mile Point, its key positions and associated responsibilities. It outlines the staffing requirements which provide initial emergency response actions and provisions for timely augmentation of on-shift personnel when required. It also describes interfaces among emergency response personnel and specifies the offsite support available to respond to the nuclear generating stations.

2.1 Typical Nuclear Division/Station Organization

The typical Nuclear Division organization for normal operation is shown in GAP-POL-01, Composition and Responsibility of the Nine Mile Point Nuclear Station LLC Organization.

Personnel in certain categories, principally Operations, **Chemistry** and Radiation Protection work in shifts so that coverage is provided 24 hours per day. For certain station conditions, such as outages, testing, etc., personnel who do not normally work on shift may work other than normal hours to provide extended coverage.

The minimum staffing at each Unit during normal operation is contained in the NMP On-Shift Staffing Analysis Report, EP-AA-1013, Addendum 1. A detailed analysis of initial on-shift responsibilities and response to an emergency condition is contained in the NMP On-Shift Staffing Analysis Report, EP-AA-1013, Addendum 1.

2.1.1 Station Responsibility During Normal Working Hours

During normal working hours, the Vice President Nine Mile Point has overall responsibility for the site. The Plant Manager has overall responsibility for Unit 1 and Unit 2 operations. The Shift Manager (SM) on duty has responsibility for ensuring that the Unit is operated safely and within the respective license and Technical Specification requirements. The SM has the authority and responsibility to order shutdown of the reactor and/or declare an emergency if required. Also, any licensed reactor operator on duty in a Control Room can shutdown (scram) the reactor if it is in an unsafe condition.

2.1.2 Station Responsibility During Off-Normal Working Hours

During off-normal working hours, the SM's have overall responsibility for the site and safe operation of their respective units. Selected management personnel are on call and may be reached through the use of an approved notification system if a SM needs to notify them of an event that requires technical consultation or requires additional personnel. However, it is the on-duty SM who has the responsibility and authority to declare an emergency. Upon declaring an emergency, the SM immediately becomes the Shift Emergency Director.

In the event of an emergency declaration due to an initiating condition affecting both Unit 1 and Unit 2, both Units' SMs will confer and determine:

- The Shift Manager of the Unit with the higher emergency classification will become the Shift Emergency Director.
- If emergency classification levels are equal, the SM first notified will become the Shift Emergency Director.
- If there is any question as to who should initiate the Station Annex, the Unit 1 SM shall assume the Shift Emergency Director duties.

2.2 On-Shift Emergency Response Organization Assignments

The initial phases of an emergency situation at a nuclear station will most likely involve a relatively small number of individuals. These individuals must be capable of (1) determining that an emergency exists; (2) providing initial classification and assessment; and (3) promptly notifying other groups and individuals in the emergency organization. The subsequent phases of the emergency situation may require an increasing augmentation of the emergency organization.

All emergency facilities will have minimum staffing within 60 minutes. Minimum staff positions are defined in EP-AA-1000, Figure Table 25.1.

All Exelon Nuclear stations have the capability at all times to perform detection, mitigation, classification, and notification functions required in the early phases of an emergency.

~~2.3 Authority Over The Emergency Response Organization~~

~~The Emergency Director in Command and Control is the designated Exelon individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station. The Emergency Director will immediately and unilaterally initiate any emergency actions, including providing protective action recommendations to authorities responsible for implementing offsite emergency measures.~~

~~The Shift Manager is available at all times to assume the responsibilities of Emergency Director. Qualified individuals are on call to respond to the EOF and TSC relieve the Shift Manager of Emergency Director duties.~~

~~2.4 Criteria for Assuming Command and Control (Succession)~~

~~The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. Emergency personnel assume responsibility for their positions upon receiving notification to activate when an event has been declared.~~

~~The Emergency Director responsibilities are initially assumed by the Shift Manager. If the event is classified at an Alert or Higher level, or the Shift Manager deems it appropriate, the Shift ERO will be augmented by the on-call ERO.~~

~~The on-call Corporate Emergency Director will report to the EOF and assume overall Command and Control. In accordance with the Nine Mile Point Emergency Plan, the Station Emergency Director reports to the TSC and assumes the responsibilities to classify and declare emergencies and emergency exposure controls.~~

~~The Shift Manager is relieved of Command and Control as soon as possible after the declaration of an Alert or higher classification. Command and Control does not transfer until the following criteria have been met:~~

- ~~• Adequate staff levels are present in support of the non-delegable responsibilities.~~
- ~~• The staff has been fully briefed as to the status of the event and the currently proposed plan of action.~~
- ~~• A formal turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.~~

~~2.5 Non-Delegable Responsibilities~~

~~Functional responsibilities of an Emergency Director that may not be delegated are:~~

- ~~• Classify and declare emergencies.~~
- ~~• Direct and approve offsite emergency notifications to state and local authorities.~~
- ~~• Make Protective Action Recommendations to offsite authorities.~~
- ~~• Approve and direct emergency exposure controls.~~

~~The Station Emergency Director (TSC) will relieve the Shift Emergency Director and assume authority and responsibility for performing the non-delegable duties of classification and emergency exposure controls, the Corporate Emergency Director (EOF) will relieve the Shift Emergency Director of overall Command and Control and assume the non-delegable responsibilities for PAR determination and notifications to offsite authorities.~~

2.6 Emergency Response Organization Positional Responsibilities

~~Table 2.1 outlines ERO positions required to meet minimum staffing and full augmentation of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are used as a planning basis to cover a wide range of possible events. For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.~~

~~The station's ERO consist of three major sub-groups reporting to the Emergency Director:~~

- ~~• Onsite ERO, consisting of Control Room, TSC, OSC and Security staffs. The primary functions of the Onsite ERO is perform mitigative actions and ensure appropriate onsite protective actions are taken.~~
- ~~• Offsite ERO, consisting of EOF staff. The primary functions of the Offsite ERO are to interface with offsite authorities and perform offsite radiological assessment.~~
- ~~• Public Information ERO, consisting of JIC staff. The primary function of the Public information ERO is to provide accurate information to the public through News Media.~~

2.7 Emergency Response Organization Block Diagram

~~Figures 2.2 through 2.6 show the reporting chains and interfaces of the ERO.~~

2.8 Corporate Emergency Response Organization

~~In the event of a declared emergency at one of Exelon's Nuclear Stations, a Corporate Duty Officer is notified. The Duty Officer will notify senior company management personnel of the event. The Emergency Director will keep senior management informed of events and any need for assistance.~~

~~Specific departments of the company may be called on to assist as necessary to provide support for logistics, public information, finance, technical issues, etc.. Senior management may assist with interfacing government authorities and other outside organizations.~~

2.93 Industry/Private Support Organizations

Exelon retains contractors to provide supporting services to the company's nuclear generating stations. For station specific support, copies of current contracts and letters of agreement with these groups are maintained by the Emergency Preparedness Department.

Current contracts and letters of agreement are maintained in the Emergency Preparedness Department's files.

Figure 2.1: Minimum Staffing Requirements for the ERO

Functional Area	Major Tasks	Emergency Positions	Minimum Staff (1)	Full Augmentation		
1. Plant Ops and Assessment	Control Room Staff	Shift Manager (Shift)	1*			
		Senior Reactor Operator (SRO) (Shift)	1*			
		Reactor Operator (RO) (Shift)	2*			
		Equipment Operator (EO) (Shift)	2*			
		RP Technician (Shift)	1*			
		Chemistry Technician (Shift)	1*			
2. Emergency Direction and Control	Command and Control	Shift Manager (Shift)	See above			
		Corporate Emergency Director (EOF)	1			
	Station Emergency Director (TSC)	1				
	Facility Control	TSC Director (TSC)	1			
		EOF Director (EOF)	1			
3. Notification & Comm.	Emergency Communications	Shift Communicator (Shift)	1*			
		State/Local Communicator (EOF)	1			
		ENS Communicator (TSC)	1			
		HPN Communicator (EOF)	1			
	Plant Status & Technical Activities	All ERFs: Operations Communicators (one for TSC, EOF, OSC and each CR)			5	
	In-Plant Team Control	Team Tracker (OSC)			1	
	Governmental		EOC Communicator (EOF)			1
			State Liaison (EOF)			1
County Liaison (EOF)				1		
Incident Command Post Liaison				(Note 8)		

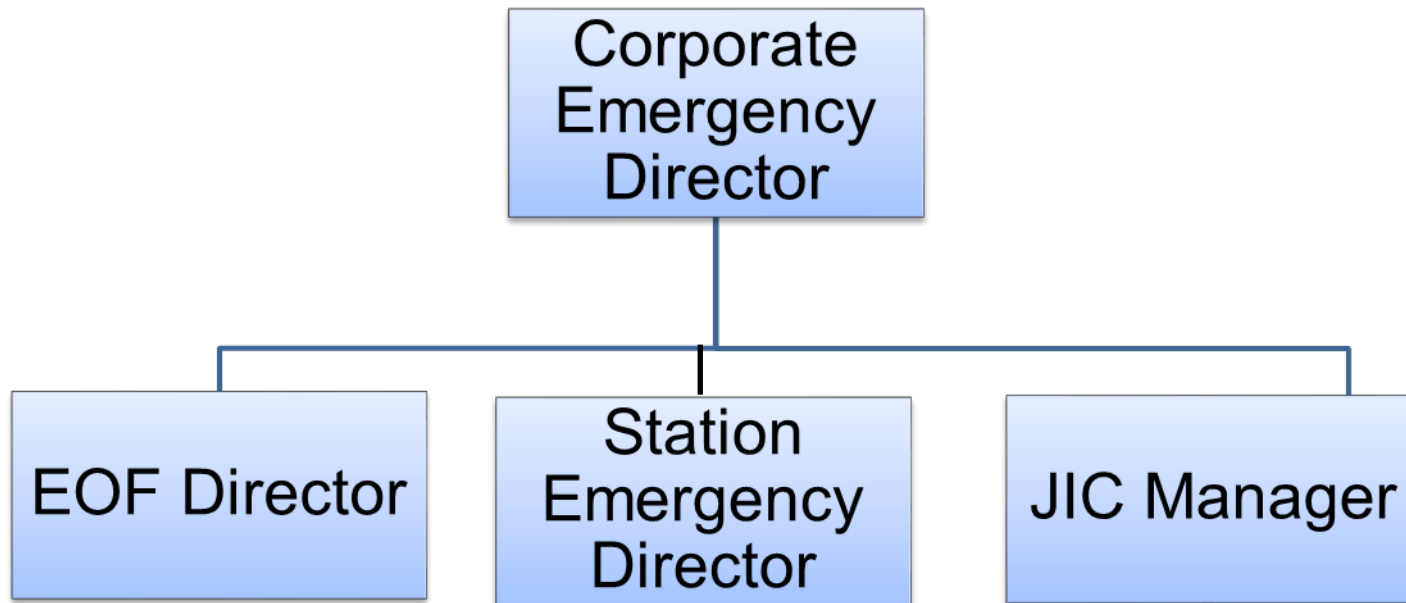
Functional Area	Major Tasks	Emergency Positions	Minimum Staff (1)	Full Augmentation
4.—Radiological Assessment	Offsite Dose Assessment	Dose Assessor (EOF)	4	4
	Offsite Surveys	Environmental Coordinator (EOF)	4	4
		Offsite Monitoring Team (EOF)		
	Onsite Surveys	RP Technician (OSC)	2	
	In-plant Surveys	RP Technician (OSC)	2	
	Chemistry	Chemistry Technician (OSC)	4	4
RP Supervisory	TSC Radiation Protection Manager (TSC) EOF Radiation Protection Manager (EOF)	4 4		
5.—Plant System Engineering, Repair, and Corrective Actions	Technical Support / Accident Analysis	Shift Technical Advisor (Shift)	1*	4
		Technical Manager (TSC)		
		Electrical Engineer (TSC)	4	
		Mechanical Engineer (TSC)	4	
		Core Thermal Hydraulic Engineer (TSC)	4	
		Operations Manager (TSC)	4	
		Technical Advisor (EOF)	4	
	TSC Technical Staff		Note 3	
	Repair and Corrective Actions	Maintenance Manager (TSC)		4
		OSC Director (OSC)	4	
Assistant OSC Director (OSC)		4		
Electrical Technicians (OSC)		2	Note 3	
Mechanical Technicians (OSC)		2	Note 3	
I&C Technicians (OSC)		2	Note 3	
Operations Personnel (OSC)			Note 3	
Leads (Ops, Elec, Main, I&C, & RP)			5 (Note 4)	
6.—In-Plant Protective Actions	Radiation Protection	RP Technician (OSC)	4	
7.—Fire Fighting	--	Fire Brigade (Shift)	Note 5	

Functional Area	Major Tasks	Emergency Positions	Minimum Staff (1)	Full Augmentation
8. First Aid / Rescue	--	First Aid provided by trained Shift Personnel Rescue support provided by shift personnel or OSC personnel.		
9. Site Access Control	Security & Accountability	Security Shift Supervisor (Shift) Security Personnel Security Coordinator (TSC)	Note 6	4
10. Resource Allocation and Admin Support	Logistics	EOF Logistics Manager (EOF) JIC Logistics Manager (JIC)	4	4
	Administration	Administrative Staff (TSC) Administrative Staff (OSC) Administrative Staff (EOF) Administrative Staff (JIC)		2 4 2 (Note 7) 2 (Note 7)
	Facility Operations	Computer Specialist (TSC / OSC) Computer Specialist (EOF / JIC)		4 4
11. Public Information	Media Interface	Company Spokesperson (JIC) Media Liaison (JIC)	4	4
	Information Development	News Writer (JIC) Technical Advisor (JIC)	4	4
	Media Monitoring and Rumor Control	MM/RC Coordinator (JIC) Inquiry Phone Team (JIC) Media Monitoring Team (JIC)	4	2 (Note 3) 2 (Note 3)
	Facility Operation and Control	JIC Manager (JIC) JIC Security (JIC)	4	4
		TOTALS:	Shift staff: 10 Augmented Min Staff: 41	37

Notes:

- ~~(1) — Provided by On-Shift personnel, denoted by an asterisk.~~
- ~~(2) — (Deleted).~~
- ~~(3) — Personnel numbers depend on the type and extent of the emergency.~~
- ~~(4) — Craft Lead positions can be filled by senior technicians or craft supervisors.~~
- ~~(5) — Fire Brigade per FSAR/Technical Specifications, as applicable. May be a collateral duty.~~
- ~~(6) — Per Station Security Plan.~~
- ~~(7) — EOF/JIC or TSC/OSC may share Administrative Staffs~~
- ~~(8) — Up to 3 Incident Command Post (ICP) Liaisons may be called based on event when a near site ICP is established.~~

Figure 2.2: ERO Management Structure



Offsite ERO
Interface with Offsite Response Organizations (Federal, State and Local) to coordinate Protective Actions for the public

Onsite ERO
Onsite (OCA) Protective Response and Mitigative Actions.

Public Information ERO
Provides information to the Public through the News Media, addresses phone inquiries, conducts Rumor Control operations.

Figure 2.3: TSC Staffing

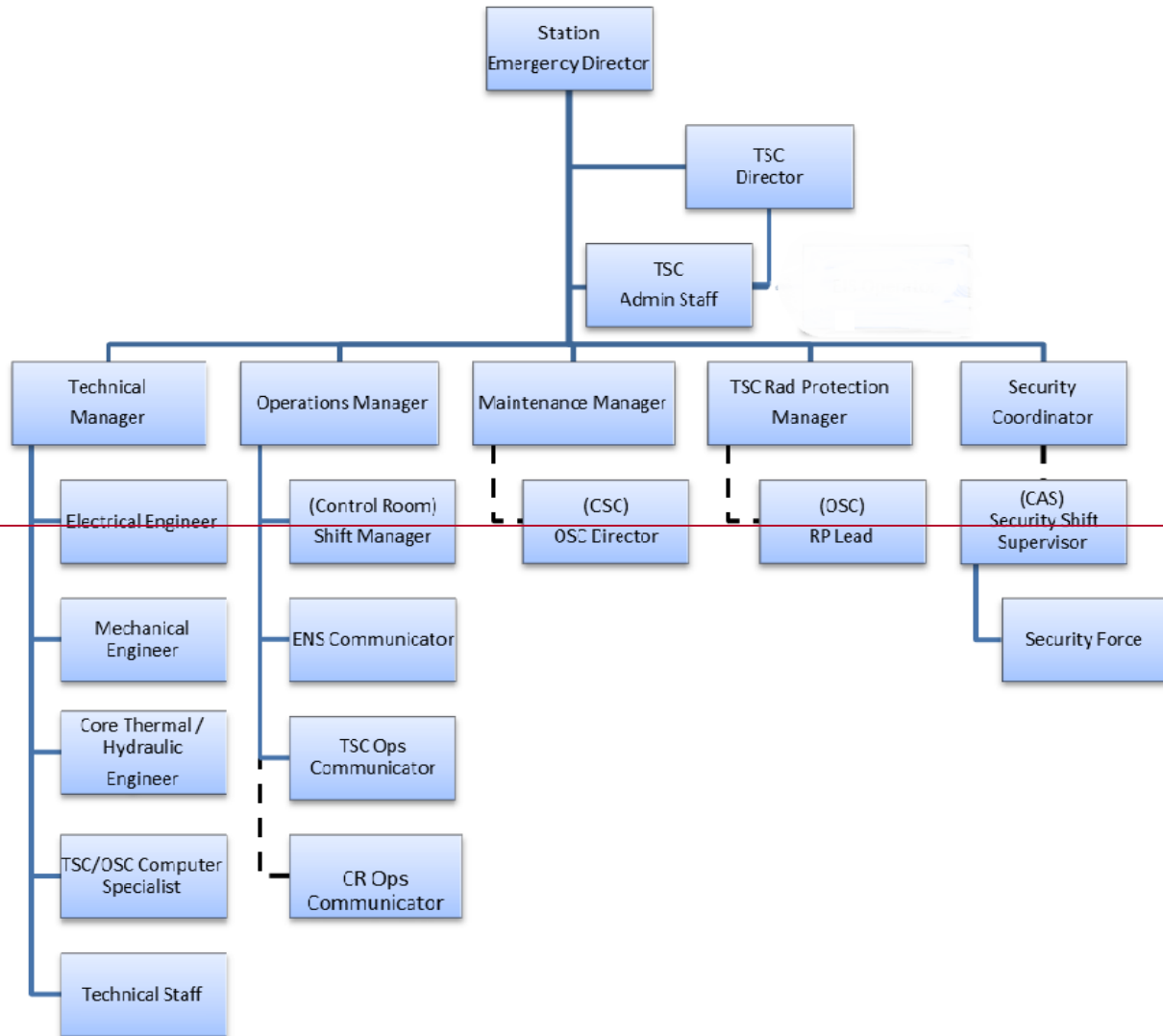


Figure 2.4: OSC Staffing

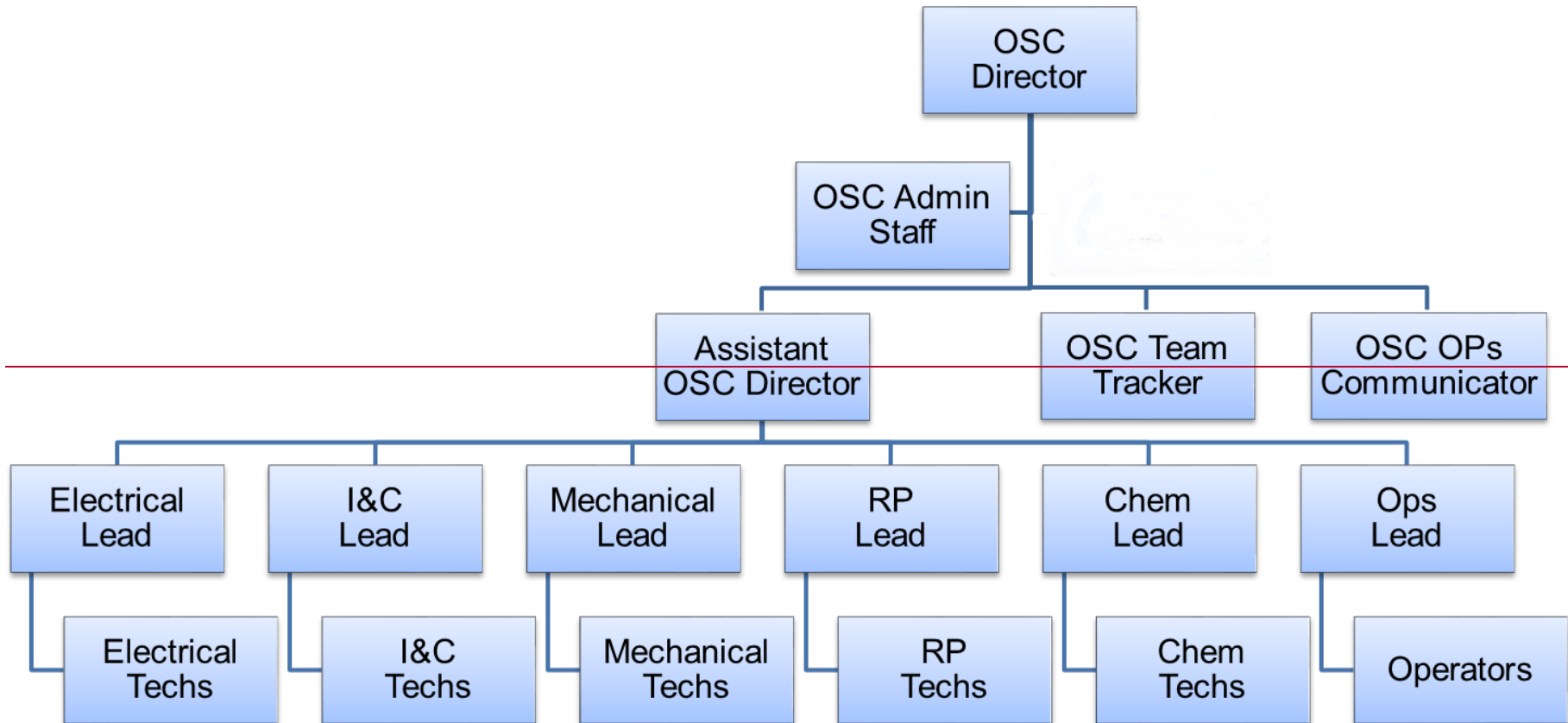


Figure 2.5 EOF Staffing

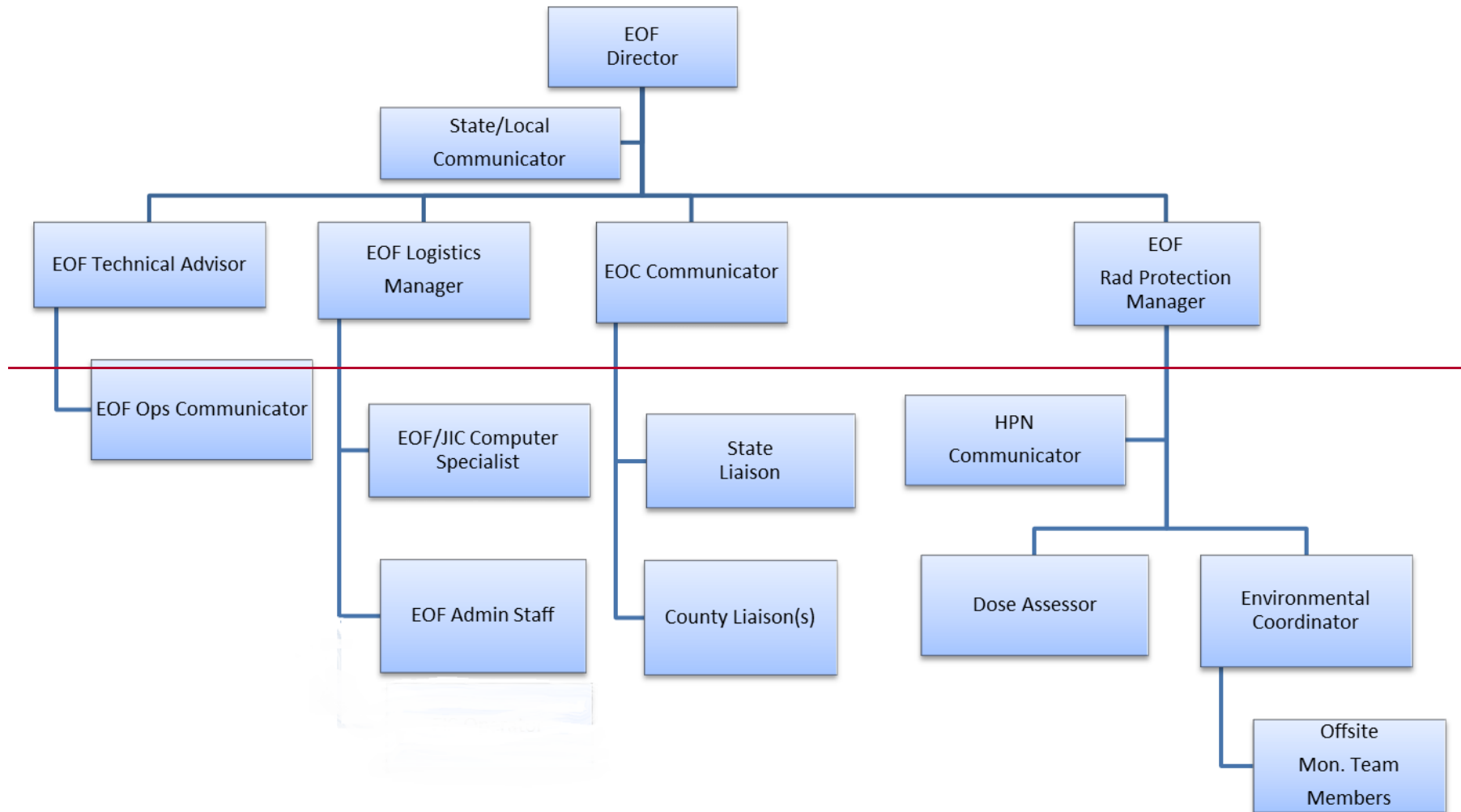
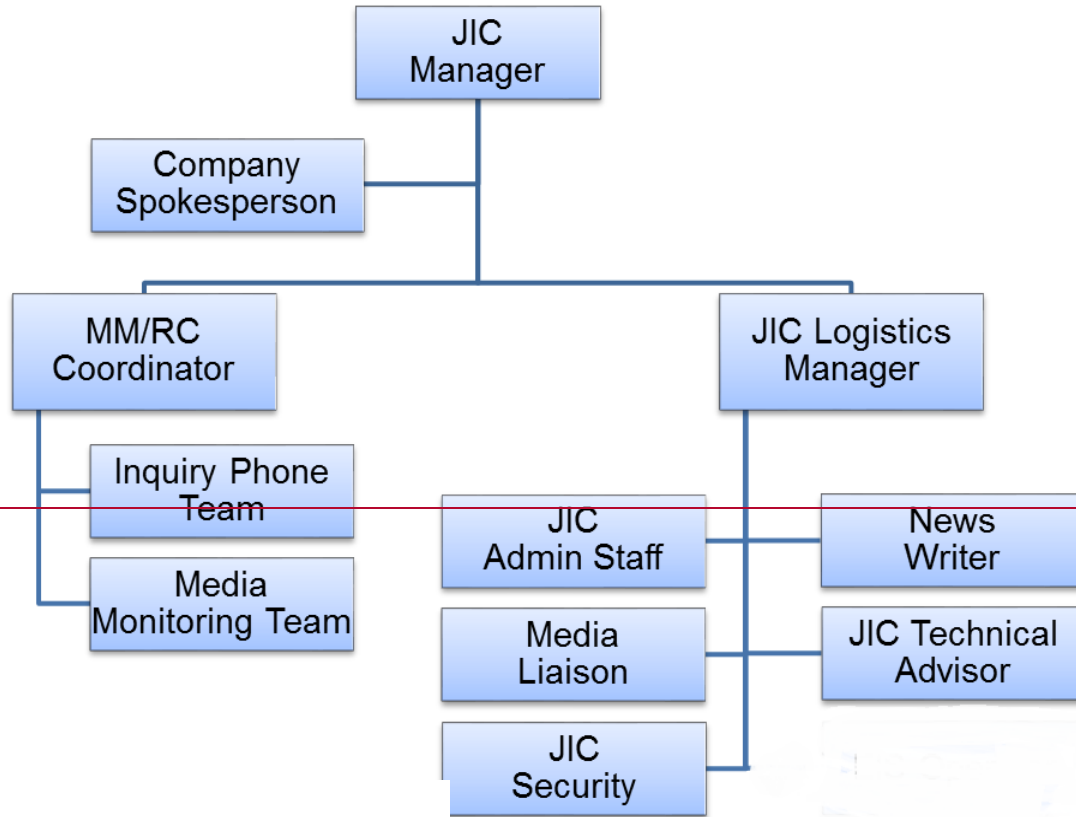


Figure 2.6 JIC Staffing



Provisions are made for assessment and continuing re-assessment throughout the course of an emergency to ensure the effective coordination, direction and upgrading of emergency activities in a timely manner. The assessment actions are described in detail in the Emergency Plan Implementing Procedures.

4.3.1 Unusual Event

The purpose of the Unusual Event classification is to provide early warning of minor events which could lead to more serious consequences. The Unusual Event conditions represent potential degradation of the level of safety of the plant or indicate a security threat to facility protection. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. Declaring an Unusual Event assures that the first step for any response later found to be needed, has been carried out by bringing onsite staff and offsite organizations to a state of readiness, thus providing a system for handling information and decision making.

The NRC, State, and Oswego County authorities will be promptly notified to assure that the first step of any necessary response can quickly be initiated. Offsite organizations will standby for further information or termination. On-shift resources can be augmented to assess and respond as needed.

4.3.2 Alert

Events of the Alert classification involve actual or potential degradation of the level of safety of the plant or a security event that involves probable life-threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any radioactivity released would result in exposures of only a small fraction of the guidelines for required offsite action. By assuring that emergency personnel are available, protective actions, such as performing confirmatory radiation monitoring and providing offsite authorities with current status information, will be ensured.

For events which fall into the Alert classification, the Emergency Response Organization will promptly notify the NRC, State and County authorities of the Alert Classification and the reasons for the classification. The TSC and EOF will be staffed to assist in the assessment of the incident and determination of proper responses. Periodic plant status updates will be given to offsite authorities who will also be advised of any change in the classification of the event.

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

- ~~• Appropriate staff is available to mitigate the event,~~
- ~~• The potential to over-expose non-essential personnel is minimized,~~

- ~~Non-essential personnel are prepared for possible exclusion area evacuation by pre-staging these personnel outside of the protected area.~~

The JIC will be staffed in order to coordinate public information activities warranted by the emergency. Offsite agencies may activate their resources and facilities and may alert other emergency personnel, such as monitoring teams, communication centers, the Emergency Alert System (EAS), and law enforcement. They will be ready to escalate to a more severe classification, if appropriate.

4.3.3 Site Area Emergency

A Site Area Emergency (SAE) is declared when events are in progress or have occurred which involve actual or likely major failures of plant functions needed for the protection of the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary.

In the event that a SAE is declared, the actions to be taken by various plant groups are detailed in the implementing procedures for the plant. The Emergency Response Organization will make the initial notification to the County authorities, State, and NRC.

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

- ~~Appropriate staff is available to mitigate the event,~~
- ~~The potential to over-expose non-essential personnel is minimized,~~

The purpose of declaring a SAE is to assure that non-essential personnel are protected in the event of a release of radioactive materials. Should a release be anticipated or in progress, non-essential personnel will normally be directed to evacuate to the either the Offsite Assembly Area (provided it is safe) for monitoring and if necessary decontamination, or home if there was no release of contamination from the station. If no release is anticipated or in progress, non-essential personnel will normally remain at designated locations within the exclusion area, to permit more rapid return of personnel to normal duties. Accountability of personnel remaining within the protected area, as a minimum will commence at this level, and continues until event termination or de-escalation. Also, offsite agency authorities will be available at primary response centers for consultation and updates on the situation, and to provide information to the public.

For events which fall into the SAE classification, the County, State, and NRC will be promptly notified of the SAE classification, and the reasons for the SAE

4.3.4 General Emergency

A General Emergency (GE) is declared when events are in progress or have occurred which involve actual or imminent substantial core damage or melting with potential loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases of radioactive material can be expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

In the event that a GE is declared, the actions to be taken by the various plant groups are detailed in the implementing procedures for the plant. The Emergency Response Organization will make the initial notification to the County authorities, State, and NRC. Initial notification of a GE shall contain initial Protective Action Recommendations. The purposes for declaring the GE are:

- To initiate protective actions for the public and site personnel as predetermined by projected, or by actual releases.
- To provide continuous assessment of information from the affected unit.
- To provide for consultation with offsite authorities.
- To keep the public informed through the JIC.
- To evacuate non-essential personnel from the exclusion area (provided it is safe) to either the Offsite Assembly Area (OAA) for monitoring and if necessary decontamination, or home if there has been no release of contamination from the station.

The TSC and EOF will be staffed to assist in the assessment of the incident and proper determination of responses. Periodic plant status updates will be given to offsite authorities who will also be advised of any change in the classification of the incident. The JIC will be staffed in order to coordinate public information activities warranted by the emergency. Offsite agencies will activate all needed resources and facilities.

4.4 Assessment Capabilities

4.4.1 Field Radiological Assessment

Field radiological data is collected by onsite and offsite survey teams. The teams may be deployed for any emergency classification involving projected or actual releases of radioactive materials. The survey teams use emergency/company vehicles (or personal vehicles, if needed) for transportation and maintain contact with the EOF or TSC. **NMPNS will share the Offsite Monitoring Responsibilities with the James A. FitzPatrick Nuclear Plant. The Offsite teams are available and trained to respond to an event at either station.**

Downwind Survey equipment is maintained for emergency use by onsite and offsite survey teams. This equipment includes portable instrumentation for

APPENDIX 1

CROSS-REFERENCE INDEX
 BETWEEN NMPNS EMERGENCY PLAN
 AND NUREG-0654/FEMA-REP-1 REV 1

<u>NUREG</u> <u>0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX</u> <u>SECTION</u>
A.1.a	Identification of Response Organizations	2.1, 2.2, 2.9, 2.10, 2.11
A.1.b	Organization of Concept of Operations	2.1, 2.2, 2.9, 2.10, 2.11
A.1.c	Organizational Inter-Relationships- Block Diagram	Fig. 2.1, Fig. 2.2, Fig. 2.6, Fig. 2.3, Fig 2.4, Fig 2.5, Fig. 4.2, Fig. 4.3, EP-AA-1000, Section B
A.1.d	Designation of Organization Director	2.1, 2.3, 2.4 EP-AA-1000, Section B
A.1.e	24 Hour Response/Communication	2.1, 2.2,
A.2.a	Organization Authority	Appendix 5
A.2.b	Legal Basis for Organization Authority	Appendix 5
A.3	Formal Intra-Government/Organization Agreements	Appendix 2
A.4	Designated Authority for Organization Resource Continuity	2.6 EP-AA-1000, Section B
B.1	Provision for Onsite Shift Emergency Organization	2.1, 2.1.1, 2.1.2, 2.2, EP-AA-1013, Addendum 1
B.2	Designation of Onsite Emergency Coordinator	2.1, 2.2
B.3	Line of succession for the Emergency Coordinator	2.2.1, 2.2.2b, 2.2, 2.1, 2.3, 2.4
B.4	Functional Responsibilities of the Emergency Coordinator	2.2, 2.5 EP-AA-1000, Section B
B.5	Qualification of Onsite Emergency Personnel	2.2, Fig. 2.1 EP-AA-1000, Section B
B.6	Onsite Emergency Organization Interface	Fig. 2.1-2.6, Fig. 4.2, Fig. 4.3, EP-AA-1000, Section B
B.7	Corporate level support and Table B-1	2.1, 2.8 EP-AA-1000, Section B

APPENDIX 1

CROSS-REFERENCE INDEX
 BETWEEN NMPNS EMERGENCY PLAN
AND NUREG-0654/FEMA-REP-1 REV 1

<u>NUREG</u> <u>0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX</u> <u>SECTION</u>
B.7.a	Logistical Support for Emergency Personnel	2.6 EP-AA-1000, Section B
B.7.b	Technical Support Planning/Reentry/Recovery	7.4
B.7.c	Management level Interface with Governmental Authorities	2.6, Fig. 2.1 EP-AA-1000, Section B
B.7.d	Augmentation of Media Release personnel	EP-AA-1000, Section B 2.6, Fig. 2.1
B.8	Augmentation by Private Contractors/Organizations	7.4.2, 2.9, 2.10
B.9	Local Agency Support Services and Agreements	4.8, Appendix 2, 2.10
C.1.a	Authority to request Federal Resources	2.2.b, 2.3 , 2.6.2.a, EP-AA-1000, Section B
C.1.b	Resources expected and Arrival Times	2.11
C.1.c	Support Available for Federal Response	5.1.4, 5.2, 2.11
C.2.a	Representative of State/County to EOF	Appendix 5
C.2.b	NMPNS Representative to State/County EOCs	2.6.2.i, 2.6.2.j EP-AA-1000, Section B
C.3	Radiological Laboratory Capabilities	5.3.1, 5.3.2
C.4	Sources for Nuclear Assistance	5.6, 9.4.2, Appendix 2, 2.9, 2.10, 4.8, 5.1.7, 5.1.8, 5.3
D.1	Facility Emergency Classification Methodology	3.1, 4.3, Fig 3.1
D.2	Initiating Conditions	3.1, 4.3, Fig. 3.1
D.3	State Emergency Classification System	Appendix 5
D.4	State and Local Procedures	Appendix 5

APPENDIX 1

CROSS-REFERENCE INDEX
BETWEEN NMPNS EMERGENCY PLAN
AND NUREG-0654/FEMA-REP-1 REV 1

<u>NUREG 0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX SECTION</u>
G.1	Public Emergency Education/Information	6.4.1, 6.4.2
G.2	Public Emergency Education Program	6.4.1, 6.4.2
G.3.a	Media Contacts and Locations	5.1.6, 2.6.3
G.3.b	Media at the EOF	5.1.6
G.4.a	Designated Public Information Spokesperson	2.6.3.b EP-AA-1000, Section B
G.4.b	Timely Exchange Among Spokespersons	2.6.3.b EP-AA-1000, Section B
G.4.c	Arrangements for Rumor Control	4.9, 2.6.3.h
G.5	News Media Education Program	6.1.1g
H.1	NUREG 0696 TSC and OSC Requirements	5.1.2, 5.1.3
H.2	Near Site EOF	5.1.4
H.3	State and County EOCs	Appendix 5
H.4	Timely Activation/Staffing of ERFs/EOCs	2.2,
H.5.a	Onsite Monitoring Systems - Geophysical	5.3.3.f, 5.3.3.g, 5.3.3.h.
H.5.b	Onsite Monitoring Systems - Radiological	5.3.3.b, 5.3.3.d.
H.5.c	Onsite Monitoring Systems - Process	5.3.3.a, 5.3.3.c.
H.5.d	Onsite Monitoring Systems - Fire	5.3.3.e.
H.6.a	Offsite Monitoring Systems/Equipment - Geophysical	5.3.3.f, 5.3.3.g., 5.3.3.h.

APPENDIX 4**Emergency Response Organization Responsibilities**

Note: The positions and responsibilities described in this Appendix apply to Nine Mile Point station and supersede the list of ERO positions and respective ERO responsibilities identified in the Exelon Standard Plan.

1.0 ON-SHIFT STAFF POSITIONAL RESPONSIBILITIES**1.1 Shift Emergency Director / Shift Manager:**

NOTE: * Indicates Non-Delegable responsibilities when performing Emergency Director duties.

- Coordinate between CR, OSC and TSC to set OSC team task priorities.
- Perform or direct emergency PA announcements.
- Ensure flow of information within and between the emergency response facilities.
- Integrate ERO activities with the Incident Command Post (ICP) response activities.
- Assume overall command and control of emergency response.
- Classify and declare emergencies.*
- Direct notification and activation of the ERO.
- Direct and approve offsite emergency notifications to state and local authorities*.
- Direct ENS communications with the NRC.
- Oversee the performance and evaluate the results of dose projection activities.
- Ensure appropriate accountability and search and rescue actions for plant personnel.
- Ensure appropriate evacuation actions for plant personnel*.
- Approve the issuance of KI.
- Make Protective Action Recommendations to offsite authorities*.
- Approve emergency exposures.*
- Terminate the emergency event.

1.2 Shift Manager (After Transfer of Command and Control)

- Coordinate between CR, OSC and TSC to set OSC team task priorities.
- Perform or direct emergency PA announcements.
- Ensure flow of information within and between the emergency response facilities.
- Participate in Inter-Facility Briefings to communicate and obtain event and response information.
- Authorize and prioritize requests for external assistance (police, fire, medical) as necessary.
- Assist with Emergency Classification.

APPENDIX 4**Emergency Response Organization Responsibilities**

- 1.3 ~~Shift Technical Advisor (STA), SROs and ROs~~
- ~~• Assist with emergency classification.~~
- 1.4 ~~Designated Shift Communicator~~
- ~~• Notify the ERO.~~
 - ~~• Perform offsite emergency notifications to state and local authorities.~~
 - ~~• Provide plant data and plant information to the NRC via the ENS.~~
- 1.5 ~~Designated Shift Dose Assessor~~
- ~~• Perform dose assessments.~~
- 1.6 ~~Shift Radiation Protection Technician(s)~~
- ~~• Ensure habitability is established and maintained for occupied onsite areas.~~
 - ~~• Monitor in-plant radiological conditions.~~
 - ~~• Coordinate RP support for personnel dispatched into the plant.~~
- 1.7 ~~Shift Chemistry Technician~~
- ~~• Conduct sampling to assist with emergency assessment activities.~~
- 1.8 ~~Security Shift Supervisor~~
- ~~• Supervise security force activities.~~
 - ~~• Perform offsite emergency notifications to state and local authorities.~~
 - ~~• Establish and maintain Protected Area accountability.~~
 - ~~• Establish and supervise plant access controls.~~
 - ~~• Supervise security actions for site evacuation.~~
 - ~~• Coordinate administration of KI to the security officers.~~
- 1.9 ~~Other Shift Personnel (Non-licensed Operators, Security Force, Maintenance Personnel)~~
- ~~• Support emergency response as directed.~~

2.0 TECHNICAL SUPPORT CENTER (TSC)

- 2.1 ~~Station Emergency Director~~
- ~~NOTE: * Indicates Non-Delegable responsibilities when performing Emergency Director duties.~~
- ~~• Approve emergency exposure controls.*~~
 - ~~• Approve the issuance of KI.~~
 - ~~• Ensure appropriate evacuation actions for plant personnel*.~~
 - ~~• Classify and declare emergencies.*~~

APPENDIX 4Emergency Response Organization Responsibilities

- ~~Manage all onsite emergency activities in support of plant operations.~~
- ~~Establish plant/station response priorities.~~
- ~~Integrate ERO activities with the Incident Command Post (ICP) response activities.~~
- ~~Authorize and prioritize requests for external assistance (onsite technical support, manpower) as necessary.~~
- ~~Provide informational updates and recommendations to the ED, regarding plant status and activities.~~
- ~~Direct ENS communications with the NRC.~~
- ~~Authorize emergency response facility relocations.~~
- ~~Evaluate event assessments and mitigative strategies to determine operational and response actions.~~
- ~~Ensure appropriate accountability and search and rescue actions for plant personnel.~~
- ~~Ensure accountability, once established, is maintained in all occupied areas of the station.~~
- ~~Ensure appropriate evacuation actions for plant personnel.~~
- ~~Coordinate between CR, OSC and TSC to set OSC team task priorities.~~
- ~~Conduct facility briefs and updates.~~
- ~~Participate in the Inter-Facility briefing to communicate and obtain event and response information.~~
- ~~Coordinate integration of the NRC Site Team.~~
- ~~Terminate the Emergency Event.~~
- ~~Assist in the development of recovery plans.~~

2.2 TSC Director

- ~~Activate the Facility.~~
- ~~Establish and maintain facility accountability.~~
- ~~Manage the operation of the facility.~~
- ~~Review and ensure facility displays are maintained current.~~
- ~~Coordinate ERO shift relief rosters for the onsite facilities.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Perform or direct emergency PA announcements.~~
- ~~Coordinate integration of the NRC Site Team.~~
- ~~Arrange for logistics support.~~
- ~~Ensure flow of information within and between the emergency response facilities.~~
- ~~Provide input for facility briefs and updates.~~
- ~~Coordinate TSC relocation.~~

APPENDIX 4**Emergency Response Organization Responsibilities****2.3—Technical Manager**

- ~~Manage the activities of the TSC engineering / technical staff.~~
- ~~Ensure additional personnel and/or equipment is arranged for, as necessary.~~
- ~~Provide engineering support for accident detection and assessment.~~
- ~~Develop mitigative strategies based on assessment of the event.~~
- ~~Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~
- ~~Provide input for facility briefs and updates.~~

2.4—Electrical Engineer

- ~~Provide engineering support for accident detection and assessment.~~
- ~~Provide input into mitigative strategies.~~
- ~~Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~

2.5—Mechanical Engineer

- ~~Provide engineering support for accident detection and assessment.~~
- ~~Provide input into mitigative strategies.~~
- ~~Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~

2.6—Core/Thermal Hydraulic Engineer

- ~~Provide engineering support for accident detection and assessment.~~
- ~~Provide input into mitigative strategies.~~
- ~~Perform core damage estimations.~~
- ~~Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).~~

2.7—Technical Staff

- ~~Provide input for mitigative strategies~~

2.8—TSC/OSC Computer Specialist

- ~~Support the setup of systems and equipment within the facility.~~
- ~~Monitor facility equipment (computer related and communications) to ensure adequate operation.~~
- ~~Resolve any IT related malfunctions.~~

2.9—TSC Operations Manager

- ~~Manage the activities of the TSC Operations staff.~~
- ~~Assist with emergency classification.~~

APPENDIX 4**Emergency Response Organization Responsibilities**

- Provide technical assistance communication path to the Shift Manager.
- Support the establishment of plant/station response priorities.
- Provide operations support for accident detection and assessment.
- Recommend operations actions to the Shift Manager in support of restoration and accident mitigation.
- Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls).
- Coordinate between CR, OSC and TSC to set OSC team task priorities.
- Coordinate operations activities outside of the Control Room between the Shift Manager and OSC.
- Provide input for facility briefs and updates.

2.10—ENS Communicator

- Provide event data and plant information to the NRC via the ENS.
- Verify Emergency Response Data System (ERDS) operation.
- Monitor assigned communication line and provide key information to facility staff.
- Monitor event information on the facility display systems.

2.11—TSC Operations Communicator

- Communicate key information between the facilities over the Operations Status Line.
- Monitor assigned communication line and provide key information to facility staff.
- Display, monitor and trend plant data and event information on the facility display systems.

2.12—CR Operations Communicator

- Communicate key information between the facilities over the Operations Status Line
- Monitor assigned communication line and provide key information to facility staff.

2.13—Maintenance Manager

- Provide input into mitigative strategies.
- Coordinate between CR, OSC and TSC to set OSC team task priorities.
- Coordinate repair and OSC team task information between the TSC and OSC.
- Provide input for facility briefs and updates.

2.14—TSC Radiation Protection Manager

APPENDIX 4**Emergency Response Organization Responsibilities**

- ~~Manage and direct the radiological activities of the RP personnel.~~
- ~~Ensure additional personnel and/or equipment is arranged for, as necessary.~~
- ~~Provide radiological support for accident detection and assessment.~~
- ~~Monitor, evaluate and communicate conditions involving any release of radioactivity.~~
- ~~Provide support and logistics for site evacuation activities.~~
- ~~Evaluate the need for and ensure proper use of KI.~~
- ~~Ensure habitability is established and maintained for occupied onsite areas.~~
- ~~Ensure proper emergency exposure controls are taken for personnel.~~
- ~~Provide radiological assistance for planning rescue operations and repair team monitoring.~~
- ~~Direct personnel decontamination activities.~~
- ~~Provide radiological assistance for the transfer of injured and/or contaminated personnel.~~
- ~~Provide input for facility briefs and updates.~~

~~2.15 Security Coordinator~~

- ~~Integrate ERO activities with the ICP response activities.~~
- ~~Manage the activities of the site security force.~~
- ~~Request and coordinate emergency activities with Local Law Enforcement Agencies (LLEAs).~~
- ~~Provide security related communications with the NRC.~~
- ~~Direct accountability and search & rescue activities.~~
- ~~Direct site evacuation activities.~~
- ~~Direct site access controls activities.~~
- ~~Coordinate security activities between the SSS and OSC.~~
- ~~Determine radiation protection measures for security force personnel and law enforcement agency personnel on site.~~
- ~~Provide input for facility briefs and updates.~~

~~2.16 TSC Administrative Staff~~

- ~~Perform administrative and logistic support functions for facility personnel.~~
- ~~Establish and maintain facility accountability.~~

APPENDIX 4**Emergency Response Organization Responsibilities****3.0 Operations Support Center (OSC):****3.1 OSC Director**

- ~~Activate the Facility.~~
- ~~Manage the operation of the facility.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Ensure flow of information within and between the emergency response facilities.~~
- ~~Support the establishment of plant / station response priorities.~~
- ~~Direct accountability and search & rescue activities.~~
- ~~Establish and maintain facility accountability.~~
- ~~Coordinate between CR, OSC and TSC to set OSC team task priorities.~~
- ~~Coordinate OSC team dispatch and control.~~
- ~~Conduct facility briefs and updates.~~
- ~~Participate in the Inter Facility Briefing to communicate and obtain event and response information.~~

3.2 Assistant OSC Director

- ~~Coordinate between CR, OSC and TSC to set OSC team task priorities.~~
- ~~Participate with OSC team dispatch and control.~~
- ~~Assemble and dispatch OSC and offsite monitoring teams.~~
- ~~Provide input for facility briefs and updates.~~

3.3 OSC Group, Chemistry and Operations Leads

- ~~Manage OSC manpower needs.~~
- ~~Assist with formation of OSC teams.~~
- ~~Participate with OSC team dispatch and control.~~
- ~~Provide technical support to dispatched OSC teams.~~

3.4 OSC Group, Chemistry and Operations Personnel

- ~~Perform job duties as an OSC team member.~~

3.5 OSC Radiation Protection (RP) Lead

- ~~Manage OSC manpower needs.~~
- ~~Brief and dispatch the onsite/offsite radiation monitoring teams.~~
- ~~Monitor in-plant radiological conditions.~~
- ~~Ensure habitability is established and maintained for occupied onsite areas.~~
- ~~Participate with OSC team dispatch and control.~~
- ~~Coordinate RP support for OSC teams.~~
- ~~Track OSC Team emergency exposure.~~

APPENDIX 4**Emergency Response Organization Responsibilities**

- ~~Implement appropriate protective measures for OSC personnel.~~
- ~~Establish OSC and plant access radiological controls.~~
- ~~Provide input for facility briefs and updates.~~

~~3.6 OSC Radiation Protection Technicians(s)~~

- ~~Perform habitability monitoring in occupied areas.~~
- ~~Perform job duties as an OSC team member.~~

~~3.7 OSC Team Tracker~~

- ~~Maintain Team Tracking Status display.~~
- ~~Participate with OSC team dispatch, control and tracking.~~
- ~~Track and maintain communications with OSC teams.~~

~~3.8 OSC Operations Communicator~~

- ~~Communicate key information between the facilities over the Operations Status Line~~
- ~~Monitor the Operations Status Line and announce key information to facility staff.~~
- ~~Display, monitor and trend plant data and event information on the facility display systems.~~

~~3.9 OSC Administrative Staff~~

- ~~Perform administrative and logistic support functions for facility personnel.~~

~~4.0 Corporate Emergency Operations Facility – Offsite ERO~~**~~4.1 Emergency Director~~**

~~NOTE: * Indicates Non-Delegable responsibilities when performing Emergency Director duties.~~

- ~~Assume overall command and control of emergency response.~~
- ~~Ensure all EXELON emergency response facilities are properly staffed and activated.~~
- ~~Direct and approve offsite emergency notifications to state and local authorities.*~~
- ~~Make Protective Action Recommendations to offsite authorities.*~~
- ~~Integrate ERO activities with the Incident Command Post (ICP) response activities.~~
- ~~Authorize and prioritize requests for external assistance (governmental) as necessary.~~

APPENDIX 4Emergency Response Organization Responsibilities

- ~~Authorize and prioritize requests for external assistance (offsite technical support, manpower) as necessary.~~
- ~~Ensure other organization's management/decision makers (NRC, State, EXELON, etc.) are kept informed of the emergency situation.~~
- ~~Ensure flow of information within and between the emergency response facilities.~~
- ~~Approve technical content of media statements.~~
- ~~Coordinate integration of the NRC site team.~~
- ~~Establish a recovery plan and organization.~~
- ~~Conduct facility briefs and updates.~~
- ~~Conduct an Inter-Facility briefings to communicate and obtain event and response information.~~

4.2 ~~EOF Director~~

- ~~Activate the Facility.~~
- ~~Manage the operation of the facility.~~
- ~~Assist offsite agency personnel responding to the facility.~~
- ~~Coordinate integration of the NRC site team.~~
- ~~Support the completion of timely offsite event notifications to State and local authorities.~~
- ~~Evaluate conditions and determine recommendations for PARs.~~
- ~~Assist in the development of recovery plans.~~
- ~~Participate in the Inter-Facility briefing to communicate and obtain event and response information.~~
- ~~Provide input for facility briefs and updates.~~

APPENDIX 4**Emergency Response Organization Responsibilities****4.3 — EOF Technical Advisor**

- ~~Monitor plant status and Control Room activities.~~
- ~~Provide input for facility briefs and updates.~~

4.4 — EOF Operations Communicator

- ~~Communicate key information between the facilities over the Operations StatusLine.~~
- ~~Monitor assigned communication line and provide key information to facility staff.~~
- ~~Display, monitor and trend plant data and event information on the facility display systems.~~

4.5 — EOF Logistics Manager

- ~~Ensure ERO personnel have been properly notified and are responding to the facilities.~~
- ~~Oversee staffing of EOF and assist with staffing for other facilities.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Coordinate ERO shift relief rosters for all facilities and the notification of personnel.~~
- ~~Manage the administrative support staff.~~
- ~~Review and ensure facility displays are maintained current.~~
- ~~Manage the procurement and logistical support activities for the onsite and offsite emergency response personnel and facilities.~~
- ~~Monitor and maintain access controls for the facility.~~
- ~~Communicate with and coordinate support for ERO responders or plant personnel sent offsite to relocation areas.~~
- ~~Provide input for facility briefs and updates~~

4.6 — EOF/JIC Computer Specialist

- ~~Support the setup of systems and equipment within the facility.~~
- ~~Monitor facility equipment (computer related and communications) to ensure adequate operation.~~
- ~~Resolve any IT related malfunctions.~~
- ~~Assist in operation of JIC audio visual equipment.~~

4.7 — EOF Administrative Staff

- ~~Callout ERO relief shift.~~
- ~~Set up EOF equipment in preparation for facility activation.~~
- ~~Perform administrative and logistic support functions for facility personnel.~~

APPENDIX 4**Emergency Response Organization Responsibilities****4.8 EOC Communicator**

- ~~Monitor plant conditions and event response activities.~~
- ~~Provide information updates to and address questions and support requests from the offsite liaisons.~~
- ~~Notify and brief external agencies and groups (INPO, ANI) of the emergency event.~~
- ~~Provide input for facility briefs and updates.~~

4.9 State Liaison

- ~~Communicate EOC / ICP actions and decisions to the EOF.~~
- ~~Provide technical support and information to the EOC / ICP.~~

4.10 County Liaison(s)

- ~~Communicate EOC / ICP actions and decisions to the EOF.~~
- ~~Provide technical support and information to the EOC / ICP.~~

4.11 EOF Radiation Protection Manager

- ~~Manage and direct the radiological activities of the Offsite RP personnel.~~
- ~~Coordinate activities with the external agency field monitoring teams.~~
- ~~Coordinate the comparison and exchange of dose assessment results with offsite agency personnel.~~
- ~~Monitor, evaluate and communicate conditions involving any release of radioactivity.~~
- ~~Oversee the performance and evaluate the results of dose projection activities.~~
- ~~Perform dose assessment.~~
- ~~Oversee the performance and evaluate the results of Offsite Monitoring Team (OMT) activities.~~
- ~~Provide support and logistics for site evacuation activities.~~
- ~~Evaluate the need for and ensure proper use of KI.~~
- ~~Evaluate conditions and determine recommendations for PARs.~~
- ~~Ensure proper emergency exposure controls are taken for personnel.~~
- ~~Provide assistance to state and federal agencies for ingestion pathway radiological activities.~~
- ~~Provide input for facility briefs and updates.~~

4.12 HPN Communicator

- ~~Provide event data and plant information to the NRC via the HPN.~~
- ~~Monitor assigned communication line and provide key information to facility staff.~~

APPENDIX 4**Emergency Response Organization Responsibilities****4.13—Dose Assessor**

- ~~Monitor, evaluate and communicate conditions involving any release of radioactivity.~~
- ~~Perform dose assessment.~~
- ~~Evaluate conditions and determine recommendations for PARs.~~

4.14—Environmental Coordinator

- ~~Direct and track Offsite Monitoring Team activities.~~
- ~~Coordinate activities with the external agency field monitoring teams.~~
- ~~Establish and maintain OMT communications.~~
- ~~Maintain and update the radiological status displays.~~
- ~~Coordinate the receipt, analysis, storage and transfer of field monitoring samples.~~
- ~~Record and report field monitoring survey, sample and exposure information.~~

4.15—Offsite Monitoring Teams

- ~~Establish and maintain OMT communications.~~
- ~~Perform equipment checks and inventories in preparation of deployment.~~
- ~~Track radiological plumes.~~
- ~~Perform and report results of radiation surveys and environmental sampling.~~
- ~~Coordinate the receipt, analysis, storage and transfer of field monitoring samples.~~
- ~~Communicate exposure status to the Environmental Coordinator.~~

4.16—State/Local Communicator

- ~~Perform offsite emergency notifications to state and local authorities.~~

5.0—Public Information ERO (JIC Staff)**5.1—JIC Manager**

- ~~Activate the Facility.~~
- ~~Manage the operation of the facility.~~
- ~~Assist offsite agency personnel responding to the facility.~~
- ~~Coordinate integration of the NRC Site Team.~~
- ~~Provide liaison to the NRC Site Team.~~
- ~~Arrange for support for Emergency Alert System (EAS) information.~~

APPENDIX 4**Emergency Response Organization Responsibilities**

- ~~Ensure flow of information within and between the emergency response facilities.~~
- ~~Interface with offsite agency Public Information Officers (PIOs) to coordinate overall information flow to the media and public.~~
- ~~Coordinate facilitation of the media briefing schedule.~~
- ~~Ensure news media briefings are held regularly during the course of the emergency.~~
- ~~Oversee conduct of media briefings.~~
- ~~Integrate ERO activities with the Incident Command Post (ICP) response activities~~
- ~~Assist in the development of recovery plans.~~
- ~~Conduct facility briefs and updates.~~
- ~~Participate in the Inter Facility Briefing to communicate and obtain event and response information.~~

5.2—Company Spokesperson

- ~~Establish periodic contact with the communications personnel in the corporate office.~~
- ~~Interface with offsite agency PIOs to coordinate overall information flow to the media and public.~~
- ~~Provide interviews to the media.~~
- ~~Serve as Company Spokesperson during press conferences at the JIC.~~
- ~~Participate in the Inter Facility Briefing to communicate and obtain event and response information.~~
- ~~Provide input for facility briefs and updates.~~

5.3—EOF Logistics Manager

- ~~Manage the administrative support staff.~~
- ~~Develop ERO shift relief rosters for the facility.~~
- ~~Arrange for logistics support.~~
- ~~Oversee set-up and testing of JIC equipment.~~
- ~~Maintain access control to the JIC.~~
- ~~Provide input for facility briefs and updates.~~
- ~~Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.~~
- ~~Coordinate preparation, review and distribution of Media Statements.~~
- ~~Obtain ED approval for the technical content of Media Statements.~~
- ~~Keep JIC staff informed of plant status and EXELON emergency response activities.~~

APPENDIX 4**Emergency Response Organization Responsibilities****5.4—~~News Writer~~**

- ~~• Prepare draft Media Statements.~~
- ~~• Develop public information materials (bulletins, backgrounders and chronologies).~~

5.5—~~JIC Technical Advisor~~

- ~~• Provide technical expertise to the JIC staff.~~
- ~~• Assist the News Writer with development of technically accurate media statements.~~
- ~~• Provide answers to technical questions from the news media regarding the emergency situation.~~
- ~~• Periodically monitor EOF/TSC briefings and Operations Status Line to obtain information.~~
- ~~• Provide technical information support to the Company Spokesperson.~~
- ~~• Monitor event information on the facility display systems.~~
- ~~• Provide input for facility briefs and updates.~~

5.6—~~Media Liaison~~

- ~~• Ensures media is informed of protocol and schedules established for media briefings.~~
- ~~• Coordinate preparations for media briefings.~~
- ~~• Distribute media statements to the media in the media briefing area.~~
- ~~• Coordinate media relations in JIC and update media between press conferences.~~
- ~~• Coordinate special interviews and facility tours for the media.~~
- ~~• Coordinate JIC briefing area preparation and establish briefing protocol.~~

5.7—~~JIC Administrative Staff~~

- ~~• Assist in badging and direction of members of the media to proper work locations.~~
- ~~• Perform administrative and logistic support functions for facility personnel.~~
- ~~• Distribute media materials to the press.~~

5.8—~~Media Monitoring / Rumor Control Coordinator~~

- ~~• Supervise media monitoring and Inquiry Phone Team personnel.~~
- ~~• Review Media Monitoring team information for trends, misinformation and rumors.~~
- ~~• Review Phone Team information for trends, misinformation and rumors.~~
- ~~• Ensure adequate staff is available to perform media monitoring and phone team functions.~~

APPENDIX 4**Emergency Response Organization Responsibilities**

- Provide input for facility briefs and updates.

5.9 Inquiry Phone Team

- Respond to and log phone inquiries from the media and the public.
- Monitor telephone lines for trends, misinformation and rumors.

5.10 Media Monitoring Team

- Monitor media coverage of the event for trends

5.11 JIC Security

- Provide badging and access controls for the facility.

6.0 In addition to the position specific responsibilities listed above all ERO members have the following general responsibilities:

- Perform position turnover for protracted events
- Respond as directed when notified of a declared event
- Maintain personal event logs and records in support of the after-action report
- Restore area and materials upon event termination
- Apply fundamental ERO knowledge in the performance of your ERO duties
- Properly use ERO procedures and checklists in the performance of your ERO duties
- Acquire & maintain qualification in your assigned ERO position
- Apply human performance error reduction techniques in the performance of your ERO duties

License Amendment Request

ATTACHMENT 2B

Emergency Plan Clean Copy Pages – Nine Mile Point Nuclear Station

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1013

Affected Pages

Standardized Emergency Plan EP-AA-1000

Clean Copy

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station and Corporate Emergency Director's responsibilities and authority until relieved. The Corporate Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications.** Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

Non-delegable responsibilities include the following functions:

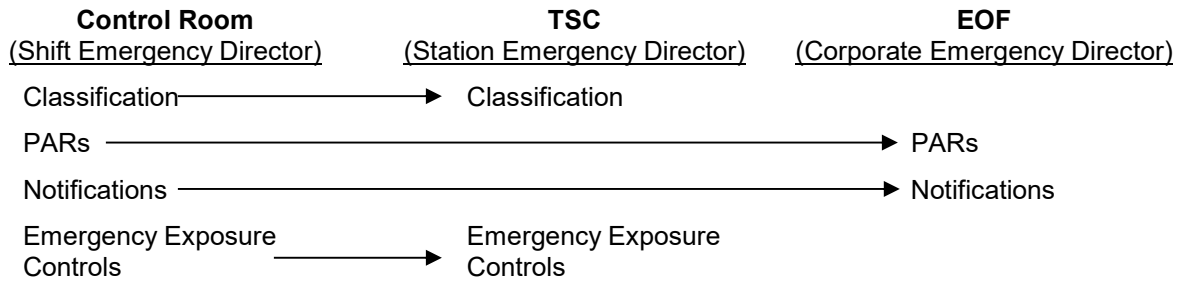
- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Overall** Command and Control is transferred to the Corporate Emergency Director.

The Station Emergency Director assumes overall authority and responsibility for **Classification and Emergency Exposure Control**. The Corporate Emergency Director (EOF) assumes the non-delegable responsibilities for PAR determination and notifications to offsite authorities.

Transition of “Non-Delegable” Responsibilities



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within **this Emergency Plan**, outlines ERO positions required to meet minimum staffing of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are **described in Emergency Preparedness Implementing Procedures (EPIPs)**. For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)
- Firefighting

- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. Other qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director.

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;

- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew.

2) Station Emergency Director

TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities

- **Activate the Facility**
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.
- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.
- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.

- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

3) ENS Communicators

TSC

Responsibilities assigned to the ENS Communicators include:

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.
- Notify the NRC of changes in event classification and assist in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
- Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.

- Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

4) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.
- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.

At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

5) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

6) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director. The TSC RPM directs staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.

- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

7) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

8) Operations Support Center Director OSC

The OSC Director reports to the **Emergency Director** and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - I&C Maintenance
 - Mechanical Maintenance
 - Electrical Maintenance
 - Radiation Protection
- Coordinate with Operations in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

9) OSC Leads OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.

- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

1) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

2) Radiation Protection Manager EOF

The Radiation Protection Manager directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the **Emergency** Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the **Emergency** Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

3) Dose Assessment Coordinator EOF

The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager. Responsibilities include:

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers.
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, .
- Perform dose projections using the Dose Assessment computer models.
- Monitor meteorological and plant effluent conditions.
- Evaluate the need for administering KI to Exelon nuclear workers.
- **Coordinate Field Monitoring Team activities**

4) Computer Specialist EOF

The Computer Specialist reports to the **Emergency Director**. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.
- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

5) State/Local Communicator EOF

The State/Local Communicator reports to the **Emergency Director**. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.

c. Public Information Emergency Response Organization

1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

2) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.

- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.
- Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.
- Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

3) Public Information Director (PID) JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. **The Public Information Director may perform this function at remote locations.** Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- **Review** and access media coverage of the emergency event.

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained in Appendix 5, lists the key positions of the ERO. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. These positions are further described in the EPIPs.

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC Corporate Spokesperson. The ENC function may be located at either the EOF or the JIC.

The EOF is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the Shift Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:

Figure B-1a: Exelon Overall ERO Command Structure

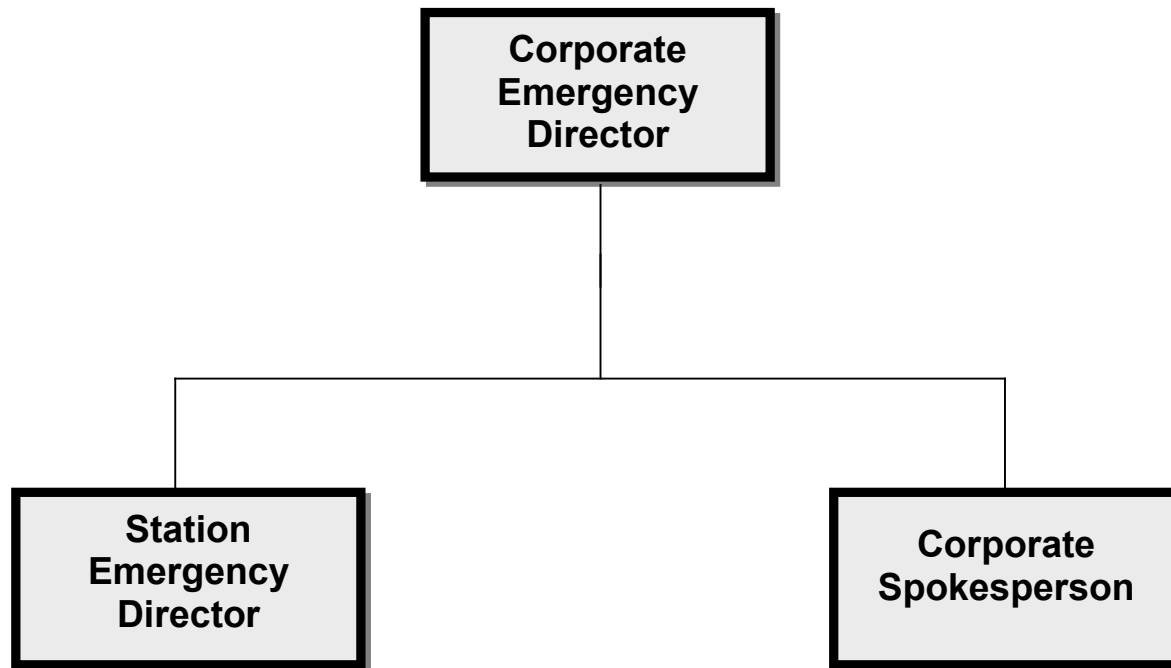
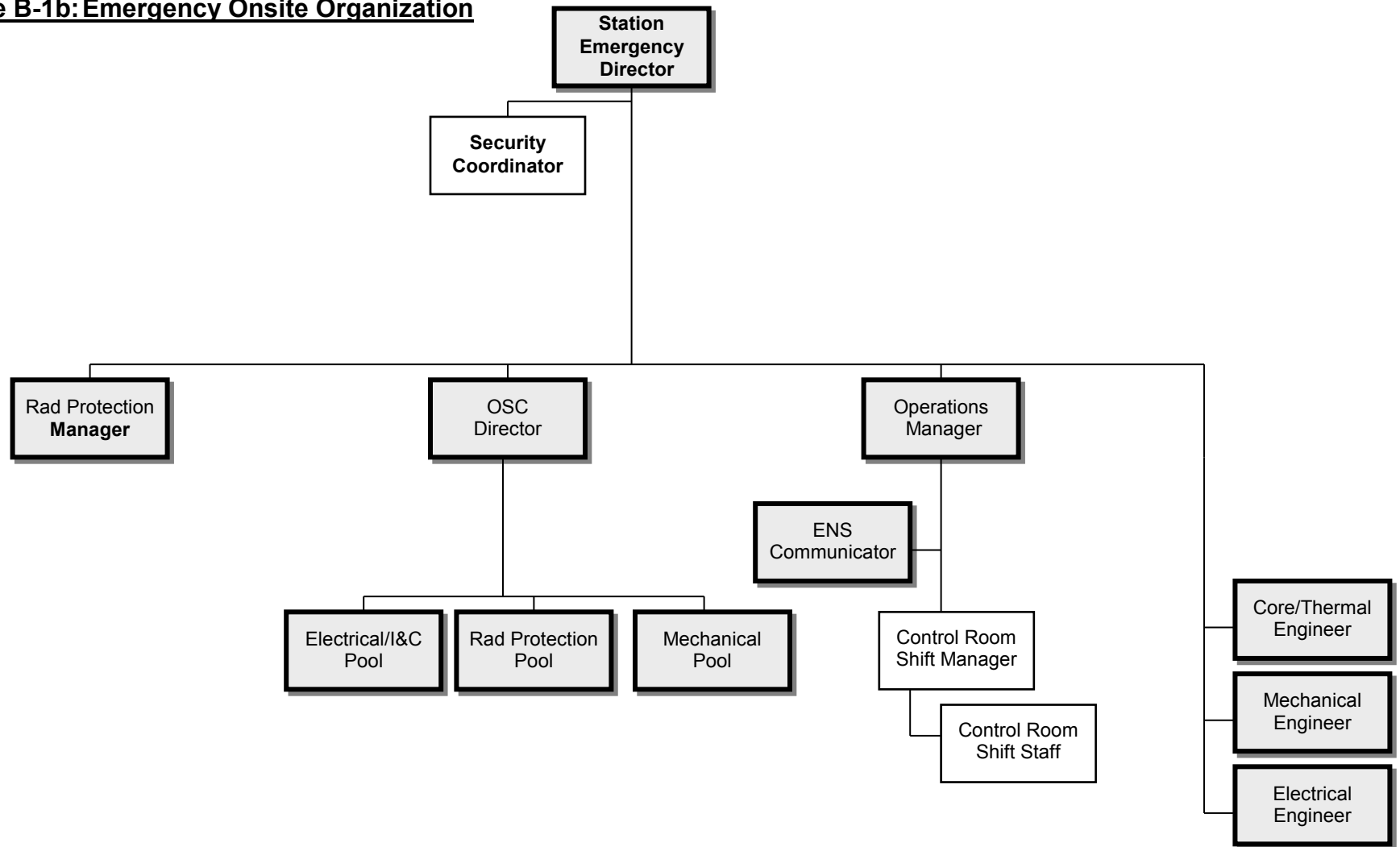


Figure B-1b: Emergency Onsite Organization



ERO response pool personnel do not include the on-shift complement.

SAMG functions requires 1 Decision-Maker and 2 Evaluators.

Figure B-1c: Emergency Offsite Organization

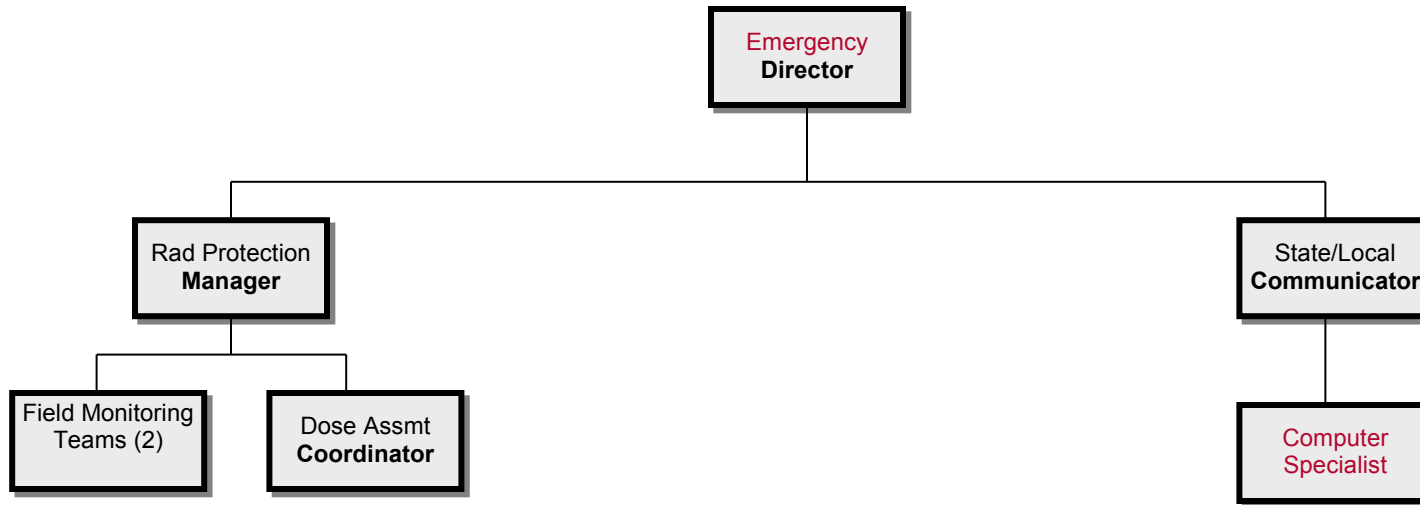
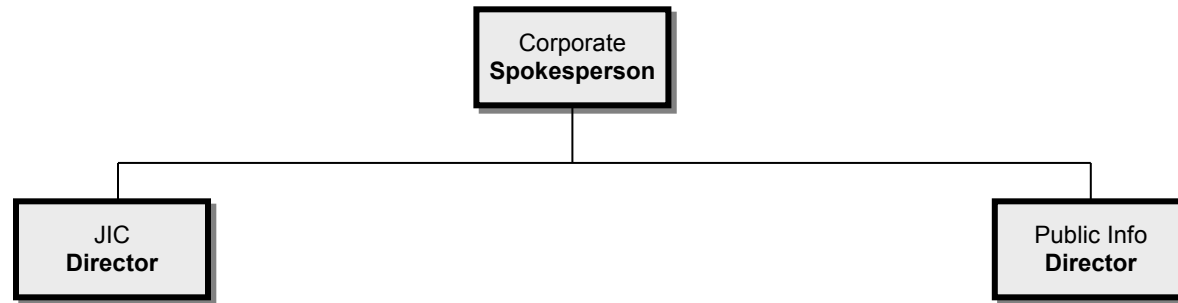


Figure B-1d: Emergency Public Information Organization



- 9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

- e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.

- f. NRC Communications (ENS)

Communications with the NRC Operations Center will be performed via the NRC ENS circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

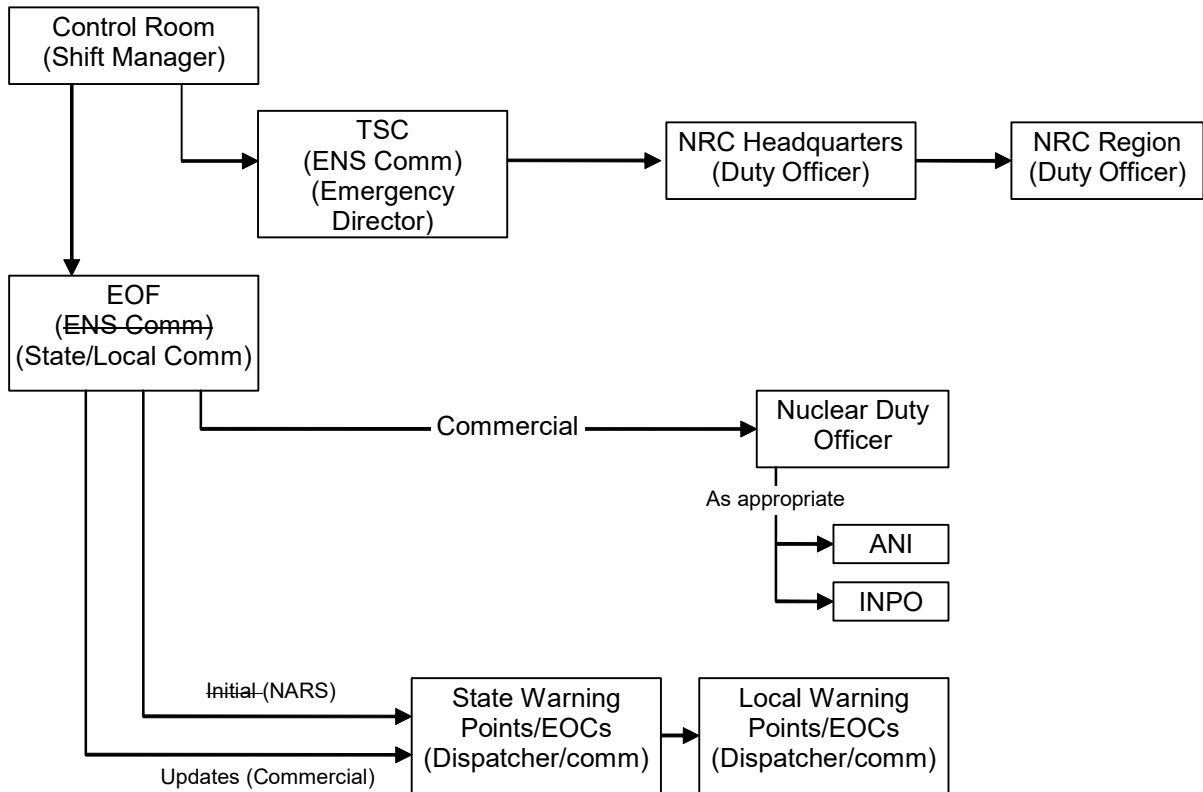
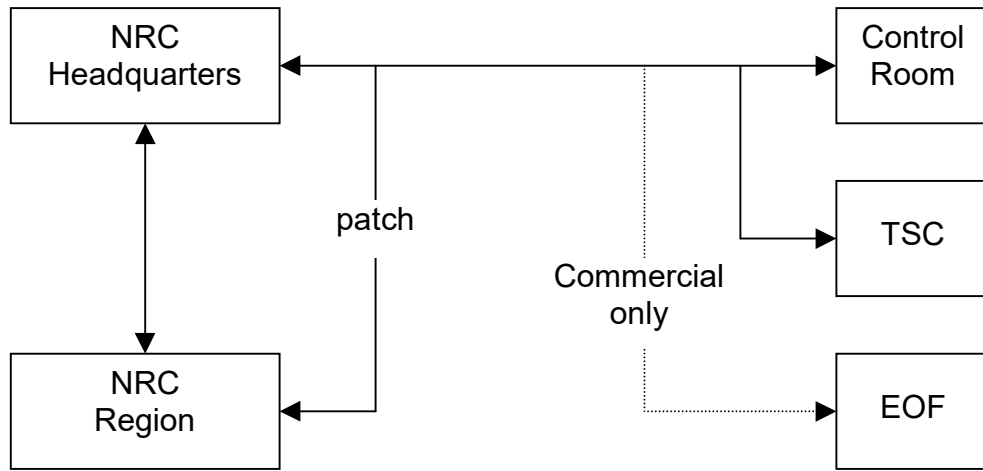


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through telephones that the media can call for information about an emergency.

b. The news media is not permitted into the EOF during an emergency.

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 **JIC Staff**. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.
- Coordination of radiological and environmental assessments.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

The National Weather Service (NWS), or regional weather forecast providers, may be contacted during severe weather periods. These providers analyze national and local weather in order to provide localized weather forecasts for the system or for the station area as appropriate.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
 - Radiation Protection
 - Maintenance (mechanical, electrical and I&C)
- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.
- Acting as the sole contact point for ensuring attendance.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift] (OSC)	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift and those responding within 60 min.] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1013

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EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR NINE MILE POINT STATION

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Section 1: Introduction.....	1-1
1.1 Purpose.....	1-1
1.2 Emergency Organization.....	1-1
Section 2: Organizational Control of Emergencies.....	2-1
2.1 Typical Nuclear Division / Station Organization.....	2-1
2.2 On-Shift Emergency Response Organization Assignments	2-2
2.3 Industry/Private Support Organizations.....	2-4
2.4 Coordination with Participating Government Agencies	2-5
Figure 2.1 Minimum Staffing Requirements for the ERO	2-7
Figure 2.2 ERO Management Structure	2-11
Figure 2.3 TSC Staffing.....	2-12
Figure 2.4 OSC Staffing	2-13
Figure 2.5 EOF Staffing.....	2-14
Figure 2.6 JIC Staffing	2-15
Section 3: Emergency Conditions	3-1
3.1 Classification System	3-1
3.2 Spectrum of Postulated Accidents	3-3
Figure 3.1 Required Actions and Participation by Response Organizations for Various Emergency Classes	3-4
Section 4: Emergency Measures	4-1
4.1 Initiation of Emergency Actions.....	4-1
4.2 Activation of Emergency Organization	4-2
4.3 Assessment Actions.....	4-4
4.4 Assessment Capabilities	4-7
4.5 Dose Assessment Methods and Techniques	4-8
4.6 Corrective Actions.....	4-11
4.7 Protective Actions	4-11
4.8 Aid to Affected Personnel.....	4-18
4.9 Emergency Public Information and Rumor Control	4-19
Figure 4.1 Activation of Emergency Organization- Summary of Notification and Response	4-20

Section 8: Acronyms and Definitions..... 8-1

 8.1 Acronyms 8-1

 8.2 Definitions 8-3

APPENDICES

1. NUREG-0654/FEMA-REP-1 Cross Reference Index
2. Letters of Agreement
3. Emergency Plan Implementing Procedures
4. Oswego County Radiological Emergency Response Plan and New York State Radiological Emergency Response Plan
5. Typical Additional Support Resources
6. Resource Material
7. Emergency Plan Commitments

ADDENDUMS

- Addendum 1, Nine Mile Point Station On-Shift Staffing Analysis Report
- Addendum 2, Evacuation Time Estimates for the James A. Fitzpatrick/Nine Mile Point Emergency Planning Zone
- Addendum 3, Unit 1 Emergency Action Levels for Nine Mile Point Station
- Addendum 4, Unit 2 Emergency Action Levels for Nine Mile Point Station

1.3 Interrelationship Between Emergency Plan and Other Procedures

Interrelationship of this Station Annex with other procedures, plans and emergency arrangements is necessary to ensure an effective response organization. These interrelated documents include:

- a. Nine Mile Point Nuclear Station Emergency Plan Implementing Procedures are designed to detail specific actions required by Station personnel in response to radiological and non-radiological emergency conditions. A listing of these procedures is contained in Appendix C.
- b. Operating Procedures (OP), Emergency Operating Procedures (EOP) Special Operating Procedures (SOP), and Severe Accident Procedures (SAP) detail immediate and subsequent operator actions in response to various system transients. These operating procedures are coordinated with the Station Annex and its implementing procedures to ensure appropriate actions are taken on a timely basis.
- c. Station Chemistry Department and Radiation Protection Department Procedures define health physics requirements for the control and handling of radioactive materials, personnel decontamination, and respiratory protection, sampling techniques, radiation survey techniques and radiation exposure guidelines. Selected procedures, which are applicable to both normal and emergency conditions, are used in conjunction with the Station Annex and its implementing procedures.
- d. Station Physical Security and Fire Protection Plans and their implementing procedures, provide overall guidance and specific instructions to Nuclear Security and Station personnel for emergencies involving security or fire. These plans and procedures are coordinated with the Station Annex and its implementing procedures to ensure compatibility, and with Offsite Plans to ensure prompt access for Offsite Response Organization Responders when necessary.
- e. The Oswego County Radiological Emergency Preparedness Plan and the New York State Radiological Emergency Preparedness Plan, in conjunction with this Station Annex and its implementing procedures, provide for early and redundant notification schemes, continued assessment and update of radiological conditions, and the coordination of onsite and offsite protective actions.

The concept of operations, and its relationship to the Federal, State, local and private organizations that are part of the overall emergency response organizations, is described in the Exelon Nuclear Standardized Emergency Plan, EP-AA-1000. A block diagram, which illustrates these interrelationships, is included in EP-AA-1000. Illustrations of how the interfaces between various segments of response organizations change during various phases of emergency and recovery operations are shown in Station Annex, Section 4.

Section 2: Organizational Control of Emergencies

This section in conjunction with EP-AA-1000, describes the Exelon Emergency Response Organization (ERO) at Nine Mile Point, its key positions and associated responsibilities. It outlines the staffing requirements which provide initial emergency response actions and provisions for timely augmentation of on-shift personnel when required. It also describes interfaces among emergency response personnel and specifies the offsite support available to respond to the nuclear generating stations.

2.1 Typical Nuclear Division/Station Organization

The typical Nuclear Division organization for normal operation is shown in GAP-POL-01, Composition and Responsibility of the Nine Mile Point Nuclear Station LLC Organization.

Personnel in certain categories, principally Operations, and Radiation Protection work in shifts so that coverage is provided 24 hours per day. For certain station conditions, such as outages, testing, etc., personnel who do not normally work on shift may work other than normal hours to provide extended coverage.

The minimum staffing at each Unit during normal operation is contained in the NMP On-Shift Staffing Analysis Report, EP-AA-1013, Addendum 1. A detailed analysis of initial on-shift responsibilities and response to an emergency condition is contained in the NMP On-Shift Staffing Analysis Report, EP-AA-1013, Addendum 1.

2.1.1 Station Responsibility During Normal Working Hours

During normal working hours, the Vice President Nine Mile Point has overall responsibility for the site. The Plant Manager has overall responsibility for Unit 1 and Unit 2 operations. The Shift Manager (SM) on duty has responsibility for ensuring that the Unit is operated safely and within the respective license and Technical Specification requirements. The SM has the authority and responsibility to order shutdown of the reactor and/or declare an emergency if required. Also, any licensed reactor operator on duty in a Control Room can shutdown (scram) the reactor if it is in an unsafe condition.

2.1.2 Station Responsibility During Off-Normal Working Hours

During off-normal working hours, the SM's have overall responsibility for the site and safe operation of their respective units. Selected management personnel are on call and may be reached through the use of an approved notification system if a SM needs to notify them of an event that requires technical consultation or requires additional personnel. However, it is the on-duty SM who has the responsibility and authority to declare an emergency. Upon declaring an emergency, the SM immediately becomes the Shift Emergency Director.

In the event of an emergency declaration due to an initiating condition affecting both Unit 1 and Unit 2, both Units' SMs will confer and determine:

- The Shift Manager of the Unit with the higher emergency classification will become the Shift Emergency Director.
- If emergency classification levels are equal, the SM first notified will become the Shift Emergency Director.
- If there is any question as to who should initiate the Station Annex, the Unit 1 SM shall assume the Shift Emergency Director duties.

2.2 On-Shift Emergency Response Organization Assignments

The initial phases of an emergency situation at a nuclear station will most likely involve a relatively small number of individuals. These individuals must be capable of (1) determining that an emergency exists; (2) providing initial classification and assessment; and (3) promptly notifying other groups and individuals in the emergency organization. The subsequent phases of the emergency situation may require an increasing augmentation of the emergency organization.

All emergency facilities will have minimum staffing within 60 minutes. Minimum staff positions are defined in EP-AA-1000, Figure 5.1.

All Exelon Nuclear stations have the capability at all times to perform detection, mitigation, classification, and notification functions required in the early phases of an emergency.

2.3 Industry/Private Support Organizations

Exelon retains contractors to provide supporting services to the company's nuclear generating stations. For station specific support, copies of current contracts and letters of agreement with these groups are maintained by the Emergency Preparedness Department.

Current contracts and letters of agreement are maintained in the Emergency Preparedness Department's files.

2.4 Coordination with Participating Government Agencies

2.4.1 Federal Agencies

The principal Federal government agencies having emergency responsibilities relative to the NMPNS, and a summary of those responsibilities, are:

a. U.S. Department of Energy (DOE)

The DOE, Brookhaven Area Office, will respond to requests from NMPNS for assistance. This assistance is limited to advice and emergency action(s) essential for the control of the immediate hazards to public health and safety.

The primary method of notification to DOE is by commercial telephone. Notification may also be made through NRC. Assistance can be requested by the NMPNS ED/RM, the Oswego County Emergency Management Director or the Commissioner of the New York State Department of Health. Medical Assistance provided by DOE could also include medical assistance by the Radiation Emergency Assistance Center/Training Site (REAC/TS) Support from Oak Ridge.

When notified of an emergency the Federal Radiological Monitoring and Assessment Plan (FRMAP) team would request a Coast Guard helicopter pick up a six person team at Brookhaven and fly them to the Nine Mile Point area with their equipment. Approximate arrival time of five (5) hours from notification is expected. This team would provide initial radiation surveys, obtain airborne samples and analyze these samples with the equipment available. The team would also act as an advance party to establish an initial base of operations for follow-on personnel. A possible location for the FRMAP team to set up operations is the Oswego County Airport, which is about ten (10) miles from the NMPNS and in close proximity to the Emergency Response Facilities yet still outside of the 10 mile EPZ. Use of this airport facility would also allow for equipment to be flown in on fixed wing aircraft close to the facilities that would be used for staging and dispatch.

b. Federal Energy Regulatory Commission (FERC)

Two (2) licensed hydroelectric developments are situated within a ten (10) mile radius of the Nine Mile Point Nuclear Station and the James A. Fitzpatrick Nuclear Power Plant. The Minetto and Varick Hydroelectric Stations are part of Project Number 2474 licensed with the Federal Energy Regulatory Commission. A plan has been developed to implement a response plan to safely shutdown and evacuate these hydroelectric facilities. This would be done in the event of a radiological emergency at either nuclear station. In addition, this plan addresses the means to minimize the impact to the public as a result of this emergency shutdown of the hydroelectric stations.

2.4.2 State and Local Agencies

This section identifies the principal State and local government agencies having action responsibilities in the event of a radiological emergency, including a Hostile Action Based event, in the vicinity of the NMPNS. The radiological emergency response plans of these agencies: describe their respective responsibilities, authorities, capabilities and emergency functions; contain provisions for preparedness and response to radiological emergencies by each organization; and contain the primary and alternate methods of emergency notifications.

a. Oswego County Emergency Management Office (OCEMO)

The OCEMO is the lead government agency for coordination and response at the local level. The Oswego County Radiological Emergency Preparedness Plan contains provisions for:

4.3 Assessment Actions

Provisions are made for assessment and continuing re-assessment throughout the course of an emergency to ensure the effective coordination, direction and upgrading of emergency activities in a timely manner. The assessment actions are described in detail in the Emergency Plan Implementing Procedures.

4.3.1 Unusual Event

The purpose of the Unusual Event classification is to provide early warning of minor events which could lead to more serious consequences. The Unusual Event conditions represent potential degradation of the level of safety of the plant or indicate a security threat to facility protection. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. Declaring an Unusual Event assures that the first step for any response later found to be needed, has been carried out by bringing onsite staff and offsite organizations to a state of readiness, thus providing a system for handling information and decision making.

The NRC, State, and Oswego County authorities will be promptly notified to assure that the first step of any necessary response can quickly be initiated. Offsite organizations will standby for further information or termination. On-shift resources can be augmented to assess and respond as needed.

4.3.2 Alert

Events of the Alert classification involve actual or potential degradation of the level of safety of the plant or a security event that involves probable life-threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any radioactivity released would result in exposures of only a small fraction of the guidelines for required offsite action. By assuring that emergency personnel are available, protective actions, such as performing confirmatory radiation monitoring and providing offsite authorities with current status information, will be ensured.

For events which fall into the Alert classification, the Emergency Response Organization will promptly notify the NRC, State and County authorities of the Alert Classification and the reasons for the classification. The TSC and EOF will be staffed to assist in the assessment of the incident and determination of proper responses. Periodic plant status updates will be given to offsite authorities who will also be advised of any change in the classification of the event.

The JIC will be staffed in order to coordinate public information activities warranted by the emergency. Offsite agencies may activate their resources and facilities and may alert other emergency personnel, such as monitoring teams, communication centers, the Emergency Alert System (EAS), and law enforcement. They will be ready to escalate to a more severe classification, if appropriate.

4.3.3 Site Area Emergency

A Site Area Emergency (SAE) is declared when events are in progress or have occurred which involve actual or likely major failures of plant functions needed for the protection of the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary.

In the event that a SAE is declared, the actions to be taken by various plant groups are detailed in the implementing procedures for the plant. The Emergency Response Organization will make the initial notification to the County authorities, State, and NRC.

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

- Appropriate staff is available to mitigate the event,
- The potential to over-expose non-essential personnel is minimized,

The purpose of declaring a SAE is to assure that non-essential personnel are protected in the event of a release of radioactive materials. Should a release be anticipated or in progress, non-essential personnel will normally be directed to evacuate to the either the Offsite Assembly Area (provided it is safe) for monitoring and if necessary decontamination, or home if there was no release of contamination from the station. If no release is anticipated or in progress, non-essential personnel will normally remain at designated locations within the exclusion area, to permit more rapid return of personnel to normal duties. Accountability of personnel remaining within the protected area, as a minimum will commence at this level, and continues until event termination or de-escalation. Also, offsite agency authorities will be available at primary response centers for consultation and updates on the situation, and to provide information to the public.

For events which fall into the SAE classification, the County, State, and NRC will be promptly notified of the SAE classification, and the reasons for the SAE classification. The TSC and EOF will be staffed to assist in the assessment of the incident and determination of proper responses. Periodic plant status updates will be given to offsite authorities who will also be advised of any change in the classification of the event.

The JIC will be staffed in order to coordinate public information activities warranted by the emergency.

Offsite agencies may activate their resources and facilities and may alert other emergency personnel, such as monitoring teams, communication centers, EAS,

and law enforcement. They will be ready to escalate to a more severe classification, if appropriate.

4.3.4 General Emergency

A General Emergency (GE) is declared when events are in progress or have occurred which involve actual or imminent substantial core damage or melting with potential loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases of radioactive material can be expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

In the event that a GE is declared, the actions to be taken by the various plant groups are detailed in the implementing procedures for the plant. The Emergency Response Organization will make the initial notification to the County authorities, State, and NRC. Initial notification of a GE shall contain initial Protective Action Recommendations. The purposes for declaring the GE are:

- To initiate protective actions for the public and site personnel as predetermined by projected, or by actual releases.
- To provide continuous assessment of information from the affected unit.
- To provide for consultation with offsite authorities.
- To keep the public informed through the JIC.
- To evacuate non-essential personnel from the exclusion area (provided it is safe) to either the Offsite Assembly Area (OAA) for monitoring and if necessary decontamination, or home if there has been no release of contamination from the station.

The TSC and EOF will be staffed to assist in the assessment of the incident and proper determination of responses. Periodic plant status updates will be given to offsite authorities who will also be advised of any change in the classification of the incident. The JIC will be staffed in order to coordinate public information activities warranted by the emergency. Offsite agencies will activate all needed resources and facilities.

4.4 Assessment Capabilities

4.4.1 Field Radiological Assessment

Field radiological data is collected by onsite and offsite survey teams. The teams may be deployed for any emergency classification involving projected or actual releases of radioactive materials. The survey teams use emergency/company vehicles (or personal vehicles, if needed) for transportation and maintain contact with the EOF or TSC. NMPNS will share the Offsite Monitoring Responsibilities

with the James A. FitzPatrick Nuclear Plant. The Offsite teams are available and trained to respond to an event at either station.

Downwind Survey equipment is maintained for emergency use by onsite and offsite survey teams. This equipment includes portable instrumentation for performing direct radiation surveys, performing contamination surveys and collecting and analyzing airborne samples for gross and iodine radioactivity. Rapid assessment of any radiological hazards resulting from the gaseous effluents are made in the field using the environmental samples taken. Radiation Protection Procedures will be used to implement the required radiological surveys/samples and analyze of the results of these surveys/samples taken from within the NMPNS. Procedure EP-AA-112-500-F-55, NMP Offsite Monitoring Team Guidance, will be used to analyze the offsite survey and sample results to provide an initial estimate of the offsite radiological consequences.

Rapid field assessment of liquid samples is not considered essential because the nearest drinking water supply is far enough away to provide ample time for warning the appropriate State and local authorities in the event protective measures are required. When field liquid samples are required, they will be taken and transported back to the appropriate facility for assessment.

4.4.2 Field Airborne Radioiodine Assessment

Monitoring for radioiodine is accomplished by the use of portable sampling pumps equipped with a particulate filter and silver zeolite cartridges. The particulate filter and silver zeolite cartridges can be field counted in a low background area for immediate determination of total radioiodine concentration. Cartridges and filters can be further analyzed using gamma spectrometry in either the NMPNS counting laboratory, the environmental laboratory or the adjacent JAFNPP counting laboratory. The lower limit of detection for radioiodine is less than $1.0E-7$ $\mu\text{Ci/cc}$ under all weather conditions.

4.4.3 Field Contamination Assessment

A second type of radiological data which the onsite and offsite survey teams collect is surface contamination levels for the radionuclides listed in NUREG-0654, Table 3 (Radionuclides with Significant Contribution to Dominant Exposure Modes). The data obtained from these sample measurements assist in protective action decisions affecting the general public during the emergency and post-emergency recovery/re-entry phase. This data can be used to determine 10CFR140 applicability.

Surface contamination may be estimated using procedure EP-AA-112-500-F-55 during the emergency and actual values are determined by sampling snow, grass, soil, leafy vegetation, surface water as deemed appropriate during emergency recovery activities. EP-AA-112-500-F-55 describes in detail the emergency radiological environmental sampling program.

APPENDIX 1

CROSS-REFERENCE INDEX
 BETWEEN NMPNS EMERGENCY PLAN
AND NUREG-0654/FEMA-REP-1 REV 1

<u>NUREG 0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX SECTION</u>
A.1.a	Identification of Response Organizations	2.1, 2.2, 2.9, 2.10, 2.11
A.1.b	Organization of Concept of Operations	2.1, 2.2, 2.9, 2.10, 2.11
A.1.c	Organizational Inter-Relationships- Block Diagram	Fig. 4.2, Fig. 4.3, EP-AA-1000, Section B
A.1.d	Designation of Organization Director	2.1, EP-AA-1000, Section B
A.1.e	24 Hour Response/Communication	2.1, 2.2,
A.2.a	Organization Authority	Appendix 5
A.2.b	Legal Basis for Organization Authority	Appendix 5
A.3	Formal Intra-Government/Organization Agreements	Appendix 2
A.4	Designated Authority for Organization Resource Continuity	EP-AA-1000, Section B
B.1	Provision for Onsite Shift Emergency Organization	2.1, 2.1.1, 2.1.2, 2.2, EP-AA-1013, Addendum 1
B.2	Designation of Onsite Emergency Coordinator	2.1, 2.2
B.3	Line of succession for the Emergency Coordinator	2.2.1, 2.2.2b, 2.2, 2.1, 2.3, 2.4
B.4	Functional Responsibilities of the Emergency Coordinator	2.2, EP-AA-1000, Section B
B.5	Qualification of Onsite Emergency Personnel	2.2, EP-AA-1000, Section B
B.6	Onsite Emergency Organization Interface	Fig. 4.2, Fig. 4.3, EP-AA-1000, Section B
B.7	Corporate level support and Table B-1	2.1, EP-AA-1000, Section B

APPENDIX 1

**CROSS-REFERENCE INDEX
BETWEEN NMPNS EMERGENCY PLAN
AND NUREG-0654/FEMA-REP-1 REV 1**

<u>NUREG 0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX SECTION</u>
B.7.a	Logistical Support for Emergency Personnel	EP-AA-1000, Section B
B.7.b	Technical Support Planning/Reentry/Recovery	7.4
B.7.c	Management level Interface with Governmental Authorities	EP-AA-1000, Section B
B.7.d	Augmentation of Media Release personnel	EP-AA-1000, Section B
B.8	Augmentation by Private Contractors/Organizations	7.4.2, 2.9, 2.10
B.9	Local Agency Support Services and Agreements	4.8, Appendix 2, 2.10
C.1.a	Authority to request Federal Resources	2.2.b, 2.6.2.a, EP-AA-1000, Section B
C.1.b	Resources expected and Arrival Times	2.11
C.1.c	Support Available for Federal Response	5.1.4, 5.2, 2.11
C.2.a	Representative of State/County to EOF	Appendix 5
C.2.b	NMPNS Representative to State/County EOCs	EP-AA-1000, Section B
C.3	Radiological Laboratory Capabilities	5.3.1, 5.3.2
C.4	Sources for Nuclear Assistance	5.6, 9.4.2, Appendix 2, 2.9, 2.10, 4.8, 5.1.7, 5.1.8, 5.3
D.1	Facility Emergency Classification Methodology	3.1, 4.3, Fig 3.1
D.2	Initiating Conditions	3.1, 4.3, Fig. 3.1
D.3	State Emergency Classification System	Appendix 5
D.4	State and Local Procedures	Appendix 5

APPENDIX 1

CROSS-REFERENCE INDEX
BETWEEN NMPNS EMERGENCY PLAN
AND NUREG-0654/FEMA-REP-1 REV 1

<u>NUREG 0654</u>	<u>CRITERIA</u>	<u>NMPNS STATION ANNEX SECTION</u>
G.1	Public Emergency Education/Information	6.4.1, 6.4.2
G.2	Public Emergency Education Program	6.4.1, 6.4.2
G.3.a	Media Contacts and Locations	5.1.6, 2.6.3
G.3.b	Media at the EOF	5.1.6
G.4.a	Designated Public Information Spokesperson	EP-AA-1000, Section B
G.4.b	Timely Exchange Among Spokespersons	EP-AA-1000, Section B
G.4.c	Arrangements for Rumor Control	4.9, 2.6.3.h
G.5	News Media Education Program	6.1.1g
H.1	NUREG 0696 TSC and OSC Requirements	5.1.2, 5.1.3
H.2	Near Site EOF	5.1.4
H.3	State and County EOCs	Appendix 5
H.4	Timely Activation/Staffing of ERFs/EOCs	2.2,
H.5.a	Onsite Monitoring Systems - Geophysical	5.3.3.f, 5.3.3.g, 5.3.3.h.
H.5.b	Onsite Monitoring Systems - Radiological	5.3.3.b, 5.3.3.d.
H.5.c	Onsite Monitoring Systems - Process	5.3.3.a, 5.3.3.c.
H.5.d	Onsite Monitoring Systems - Fire	5.3.3.e.
H.6.a	Offsite Monitoring Systems/Equipment - Geophysical	5.3.3.f, 5.3.3.g., 5.3.3.h.

License Amendment Request

ATTACHMENT 2C

**Assessment of Nine Mile Point ERO Minimum Staff and
Full-Augmented Staff Positions Removed**

License Amendment Request

Attachment 2C

Assessment of NMP ERO Minimum Staff and

Full-Augmented Staff Positions Removed

1.0 SUMMARY DESCRIPTION

This enclosure provides a summary Table of the Emergency Response Organization (ERO) positions that are being removed from the Emergency Plan along with an assessment of their respective Emergency Plan tasks as defined in the Emergency Plan. The duties of the ERO positions being relocated to Emergency Plan Implementing Procedures (EPIPs) were reviewed against the NUREG-0654 guidance (both Revision 1 and draft Revision 2), and the station Emergency Plan. Each relocated ERO position was analyzed to ensure key tasks of the position are retained within the Emergency Plan and performed by Minimum Staff ERO members. The tasks were also evaluated against the NUREG-0654 guidance to ensure regulatory requirements were maintained.

The Table provides a description of each Full-Augmentation position as well as the responsibilities assigned under the station Emergency Plan. Each responsibility is assessed against the key Emergency Plan functions to ensure the Emergency Plan can still be implemented with the relocation of the responsibility to an EPIP. In some cases, a responsibility is identified as needed to support an Emergency Plan Function and subsequently reassigned to a Minimum Staff position.

The Full-Augmented Staff will continue to be available and respond to emergency conditions. The Full-Augmented Staff continue to be notified to respond to their respective Emergency Response Facilities (ERFs) at an Alert or higher Emergency Classification Level (ECL). They will be notified at the same time as the Minimum Staff personnel; however, the Full-Augmentation ERO response is not required to activate the ERF. Additionally, some ERO Full-Augmentation positions are designated as "as needed." These positions are trained and qualified to perform their Emergency Plan function; however, the position will be notified to report to their ERF only if conditions warrant, as determined by the Emergency Director or designee.

The Table is arranged in columns as described below:

Facility: This column identifies the affected Emergency Response Facility

MCR – Main Control Room

TSC – Tech Support Center

OSC – Operations Support Center

EOF – Emergency Operations Facility

JIC – Joint Information Center

Current ERO Position: This column identifies the ERO position title. Each ERO position is also identified with a unique abbreviation for reference throughout the table. For example, MDCC is for Main Control Room Damage Control Communicator.

Current E-Plan Minimum Staff: This column identifies those positions that are currently considered Minimum Staff in the current approved Emergency Plan, but are being reassigned as Full-Augmentation (i.e., Yes/No).

Tasks Defined by Station Emergency Plan: This column identifies the specific position tasks identified in the Emergency Plan and EP Implementing Procedures. Each task is identified with a unique task ID number for quick reference throughout the table.

Task Disposition (Eliminated/Reassigned To): This column identifies the disposition of those tasks assigned to a ERO position under this License Amendment Request. Each ERO task was evaluated and dispositioned as either Relocated to an EPIP or Reassigned to a Minimum Staff Position. Tasks that are reassigned designate the ERO member receiving the task.

Justification / Implementing Action: This column provides a conclusion as to why this change is acceptable. In some cases, for tasks not being reassigned, this column provides an action needed when the change is implemented.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	Technical Manager	No	Manage the activities of the TSC engineering / technical staff.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure additional personnel and/or equipment is arranged for, as necessary.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide engineering support for accident detection and assessments.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop mitigative strategies based on assessment of the event	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Analyze and develop extreme measures actions (SAMGs, EDMGs, §50.54(x) or suspend security controls)	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Maintenance Manager	No	Provide input into mitigative strategies.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate between CR, OSC and TSC to set OSC team task priorities	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Coordinate repair and OSC team task information between the TSC and OSC.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	TSC Director	Yes	Activate the Facility	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff Station Emergency Director
			Establish and maintain facility accountability	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Manage the operation of the facility.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review and ensure facility displays are maintained current.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate ERO shift relief rosters for the on-site facilities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop ERO shift relief rosters for the facility	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Perform or direct emergency PA announcements	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate integration of the NRC Site Team.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Arrange for logistics support	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure flow of information within and between the emergency response facilities.	Relocate to EP Implementing Procedure	Oversight Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate TSC relocation.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Computer Specialist	No	Support the setup of systems and equipment within the facility.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor facility equipment (computer related and communications) to ensure adequate operation.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Resolve any IT related malfunctions.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Operations Incident Command Post Liaison	No	Provide, interpret and clarify operational related information and station priorities between the ERO and the Incident Command.	Relocate to EP Implementing Procedure	Communication Task - The task of notifying the Dose Assessment Coordinator or Meteorological changes is also performed by the Dose Assessment Coordinator. It is unnecessary to relocate this task to the Dose Assessment Coordinator who is already performing Dose Assessment activities.
TSC	Rad Protection Incident Command Post Liaison	No	Assist the Incident Command Post, as requested, with radiological related information.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	Security Incident Command Post Liaison	No	Provide, interpret and clarify security related information, and priorities between Station Security and Incident Command	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	TSC Operations Communicator	No	Communicate key information between the facilities over the Operations Status Line.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor assigned communication line and provide key information to facility staff.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Display, monitor and trend plant data and event information on the facility display systems.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	MCR Operations Communicator	No	Communicate key information between the facilities over the Operations Status Line.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Monitor assigned communication line and provide key information to facility staff.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
TSC	TSC Administrative Staff	No	Perform administrative and logistic support functions for facility personnel.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Establish and maintain facility accountability.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Assistant OSC Director	Yes	Coordinate between CR, OSC and TSC to set OSC team task priorities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Participate with OSC team dispatch and control.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assemble and dispatch OSC and offsite monitoring teams.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Operations Communicator	No	Communicate key information between the facilities over the Operations Status Line.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Monitor assigned communication line and provide key information to facility staff.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Display, monitor and trend plant data and event information on the facility display systems.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Team Tracker	No	Maintain Team Tracking Status display.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Participate with OSC team dispatch, control and tracking.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Track and maintain communications with OSC teams.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Operations Lead	No	Manage OSC manpower needs.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assist with formation of OSC teams.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Participate with OSC team dispatch and control.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Provide technical support to dispatched OSC teams.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	OSC Admin Staff	No	Perform administrative and logistic support functions for facility personnel	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
OSC	Chemistry Personnel	Yes	Perform job duties as an OSC team member.	Relocate to EP Implementing Procedure	There are no specific EP related duties for the augmented Chemistry Technician. Chem Techs will be called in as the situation requires by the OSC Director.
			Monitor plant status and Control Room activities.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	EOOperations Communicator	No	Communicate key information between the facilities over the Operations Status Line.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor assigned communication line and provide key information to facility staff.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Display, monitor and trend plant data and event information on the facility display systems.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	Logistics Manager	No	Ensure ERO personnel have been properly notified and are responding to the facilities.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Oversee staffing of EOF and assist with staffing for other facilities	Relocate to EP Implementing Procedure	Oversight Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Develop ERO shift relief rosters for the facility	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate ERO shift relief rosters for all facilities and the notification of personnel.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Manage the administrative support staff.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review and ensure facility displays are maintained current..	Relocate to EP Implementing Procedure	Oversight Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Manage the procurement and logistical support activities for the on-site and off-site emergency response personnel and facilities.	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor and maintain access controls for the facility	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Communicate with and coordinate support for ERO responders or plant personnel sent off-site to relocation areas.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	EOC Communicator	No	Monitor plant conditions and event response activities.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide information updates to and address questions and support requests from the off-site liaisons..	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Notify and brief external agencies and groups (INPO, ANI) of the emergency event.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Environmental Coordinator	No	Direct and track Offsite Monitoring Team activities.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff Rad Protection Manager
			Coordinate activities with the external agency field monitoring teams.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Establish and maintain OMT communications.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Maintain and update the radiological status displays.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate the receipt, analysis, storage and transfer of field monitoring samples.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Record and report field monitoring survey, sample and exposure information.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	State EOC Liaison	No	Communicate EOC / ICP actions and decisions to the EOF.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical support and information to the EOC / ICP.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	County EOC Liaison	No	Communicate EOC / ICP actions and decisions to the EOF.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical support and information to the EOC / ICP.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	EOF Director	Yes	Activate the Facility.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Corporate Emergency Director.
			Manage the operation of the facility.	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assist off-site agency personnel responding to the facility.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate integration of the NRC site team.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Activate the Facility.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Evaluate conditions and determine recommendations for PARs.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
			Assist in the development of recovery plans.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Participate in the Inter-Facility briefing to communicate and obtain event and response information.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Dose Assessor	Yes	Perform dose assessment.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Dose Assessment Coordinator.
			Monitor, evaluate and communicate conditions involving any release of radioactivity.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff EOF Dose Assessment Coordinator.
			Evaluate conditions and determine recommendations for PARs.	Task maintained in Emergency Plan	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
EOF	EOF HPN Communicator	Yes	Provide event data and plant information to the NRC via the HPN	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Monitor assigned communication line and provide key information to facility staff.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	EOF Administrative Staff	No	Callout ERO relief shift.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Set up EOF equipment in preparation for facility activation.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Perform administrative and logistic support functions for facility personnel.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
EOF	Technical Advisor	Yes	Monitor plant status and Control Room activities.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Technical Advisor	Yes	Provide technical expertise to the JIC staff.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Assist the News Writer with development of technically accurate media statements.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide answers to technical questions from the news media regarding the emergency situation.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Periodically monitor EOF/TSC briefings and Technical Information Line to obtain information.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide technical information support to the Company Spokesperson.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Monitor event information on the facility display systems.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Media Monitor / Rumor Control Coordinator	Yes	Supervise media monitoring and Inquiry Phone Team personnel.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review Media Monitoring team information for trends, misinformation and rumors.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Review Phone Team information for trends, misinformation and rumors.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Ensure adequate staff is available to perform media monitoring and phone team functions.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Logistics Manager JIC	Yes	Manage the administrative support staff.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Develop ERO shift relief rosters for the facility.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Arrange for logistics support.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Oversee set-up and testing of JIC equipment.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Maintain access control to the JIC.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Provide input for facility briefs and updates..	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Oversee collection of technical data and station activities for drafting Media Statements and answering JIC questions.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Coordinate preparation, review and distribution of Media Statements.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Obtain Corporate ED approval for the technical content of Media Statements.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Keep JIC staff informed of plant status and EXELON emergency response activities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	JIC Security	No	Provide badging and access controls for the facility.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	News Writer	No	Prepare draft Media Statements.	Relocate to EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
			Develop public information materials (bulletins, backgrounders and chronologies).	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
			Respond to and log phone inquiries from the media and the public.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.
JIC	Inquiry Phone Staff	No	Monitor telephone lines for trends, misinformation and rumors.	Relocate to EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff JIC Director.
			Monitor media coverage of the event for trends.	Relocate to EP Implementing Procedure	This task is maintained as a Minimum Staff responsibility. The task is transferred to the minimum staff Public Information Director.
JIC	Media Monitoring Team	No	Assist in badging and direction of members of the media to proper work locations.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

Assessment of Nine Mile Point ERO Minimum Staff and Full-Augmented Staff Positions Removed

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
JIC	JIC Administrative Staff	No	Perform administrative and logistic support functions for facility personnel.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full-Augmentation.

ENCLOSURE 3

James A. FitzPatrick Nuclear Power Plant – Evaluation of Proposed Changes

Attachments:

- Attachment 3A - Emergency Plan Marked-up Pages
- Attachment 3B - Emergency Plan Clean Copy Pages
- Attachment 3C - Assessment of James A. FitzPatrick ERO
Minimum Staff and Full-Augmented Staff Positions Removed

Enclosure 3

License Amendment Request

**James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333**

EVALUATION OF PROPOSED CHANGES

Subject: License Amendment Request for Approval of Changes to Emergency Plan Staffing Requirements

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 Applicable Regulatory Requirements/Criteria
 - 4.2 Precedent
 - 4.3 No Significant Hazards Consideration
 - 4.4 Conclusions
- 5.0 ENVIRONMENTAL CONSIDERATION
- 6.0 REFERENCES

Supporting Attachments

Attachment 3A - Emergency Plan Marked-up Pages
Attachment 3B - Emergency Plan Clean Copy Pages
Attachment 3C - Assessment of ERO Minimum Staff and Full Augmented Staff Positions
Removed

1.0 SUMMARY DESCRIPTION

10 CFR 50.47(b) and 10 CFR 50, Appendix E establish emergency planning standards that require: 1) adequate staffing; 2) satisfactory performance of key functional areas and critical tasks; and 3) timely augmentation of the response capability.

Exelon Generation Company, LLC (Exelon) is requesting NRC approval of a proposed revision to the James A. FitzPatrick Nuclear Power Plant (JAF) Radiological Emergency Preparedness Plan. The proposed changes would revise certain Emergency Response Organization (ERO) positions in the JAF Emergency Plan. Specifically, the proposed changes would revise certain ERO positions to align with the Alternative Guidance for Licensee Emergency Response Organizations (Alternative Guidance) finalized in a letter from the NRC to NEI, June 12, 2018. The guidance will be included in Revision 2 of NUREG-0654/FEMA-REP-1, "*Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*" (referred to NUREG-0654 hereafter) when published.

The proposed changes will also relocate the identified Full Augmentation ERO specified in the James A. FitzPatrick Nuclear Power Plant Emergency Plan Annex EP-AA-1014, Table 2-1, "*Plant Personnel - Emergency Action Assignments*" to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, "*Emergency plans*," paragraph (b), 10 CFR 50 Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities*," and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, "*Conditions of licenses*," paragraph (q), "*Emergency plans*," determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

As specified in Enclosure 4 of this submittal, Exelon has committed to conduct a confirmation Emergency Preparedness (EP) Drill at an Exelon facility with the proposed minimum staff personnel to demonstrate that sufficient staffing capabilities will remain and no loss of EP function will result due to the proposed changes in the ERO staffing.

2.0 DETAILED DESCRIPTION

2.1 Proposed Changes

- 2.1.1 The content and format of the JAF Emergency Plan Annex EP-AA-1014, Table 2-1, "*Plant Personnel - Emergency Action Assignments*," will be revised to align with the NRC's Alternative Guidance updated Table B-1 guidance. This includes revisions to the EP Functions and Major Tasks, as well as the Minimum Staff assigned to these areas. The proposed changes will result in a change in some designated Minimum Staff responders consistent with the NRC's Alternative Guidance.

The specific wording changes are provided in Attachments 1A and 1B of this enclosure as marked-up and clean copy Emergency Plan pages, respectively. Attachment 1C contains a task assessment of the Minimum Staff and Full-Augmented Staff removed

from the JAF Emergency Plan. Attachment 1D of the License Amendment Request contains information related to the review of the proposed changes by the State of New York.

2.1.2 On-Shift ERO Revision Summary

The JAF on-shift staff will align with the guidance specified in the NRC's Alternative Guidance. The proposed changes to align the JAF Emergency Plan Annex EP-AA-1014, Table 2-1 with the NRC' Alternative Guidance for the on-shift ERO are described as follows:

- The designated number of Fire Brigade personnel will be removed and the Table will be annotated stating the Function will be controlled per the Fire Protection Plan (FPP).
- The First Aid and Rescue EP Function is removed from the Table, consistent with the NRC's Alternative Guidance.
- The total number of on-shift RP Technicians is revised. JAF will maintain one (1) RP Technician on shift with one (1) additional person assigned to perform Dose Assessment. Note that JAF shares the site with Nine Mile Point Nuclear Station. The RP Technician, in conjunction with the two (2) RP Technicians available at Nine Mile Point meets the intent of the Alternative Guidance for three (3) RP Technicians assigned to a three (3) unit site.
- JAF will maintain a dedicated On-Shift Dose Assessor.

The table below identifies the current and proposed JAF on-shift ERO staffing positions for each EP Function identified in the NRC's Alternative Guidance.

An on-shift analysis utilizing the guidance and methodology in NEI 10-05, *"Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,"* concluded that the proposed changes do not result in conflicting duties for on-shift ERO personnel.

EP Function (based on the NRC's Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Command and Control	(1) Shift Manager	No Change
Communications	(1) Shift Communicator	No Change
Radiation Protection	(1) RP Technician (1) RP/Chem Tech	(1) RP Technician
Supervision of RP	n/a	(1) Shift Emergency Director

EP Function (based on The NRC's Alternative Guidance)	Current On-Shift Staff Positions	Proposed On-Shift Staff Positions
Dose Assessment Projections	n/a	(1) Shift Dose Assessor
Emergency Classifications	n/a	(1) Emergency Classification Advisor (Collateral Duty)
Engineering	(1) Shift Technical Advisor (STA)/ Independent Assessor (IA) (Collateral Duty)	No Change
Security	Per the Security Plan	Per the Security Plan
Repair Team Activities	(1) Electrical Maintenance (Collateral Duty) (2) Rad Waste Operator (Collateral Duty)	None
Fire Fighting/Fire Brigade	Fire Brigade (1 Senior Nuclear Operator and 4 Nuclear Plant Operators)	Per the Fire Protection Plan
First Aid / Rescue Operations	Trained Shift Personnel	n/a

2.1.3 Minimum Staffing

The JAF Minimum Staff ERO is revised to be consistent with the NRC's Alternative Guidance with some exceptions that include:

- No Technical Support Center (TSC) Dose Assessor. This is deemed to be acceptable because the JAF Emergency Operations Facility (EOF) is activated at a lower classification level than required by the NRC's Alternative Guidance for escalating events. The TSC Dose Assessor is not considered necessary because the JAF EOF will activate at 60 minutes of an Alert or higher Emergency Classification Level (ECL) and will include an EOF Dose Assessor as Minimum Staff.
- The on-site Field Monitoring Team will not include a driver. The on-site field monitoring task is limited to inside the Protected Area (PA) and a driver is not needed to support the survey tasks. The EOF Information Technology (IT) Lead

(Computer Specialist) is proposed to be staffed within 90 minutes of an Alert rather than 60 minutes of a Site Area Emergency.

- The TSC will not staff an IT Lead staffed at 90 minutes.
- The EOF will not staff an additional NRC Communicator at a Site Area Emergency

The following ERO positions will be added to the JAF Emergency Plan as Minimum Staff consistent with the NRC's Alternative Guidance:

- EOF Dose Assessment Coordinator
- EOF Computer Specialist
- JIC Public Information Director
- OSC RP Personnel
- OSC RP Supervisor / Lead
- OSC Electrical Maintenance Supervisor / Lead
- OSC Mechanical Maintenance Supervisor / Lead
- OSC I&C Maintenance Supervisor / Lead
- Field Monitoring Team (2 persons)

The following ERO support positions will no longer be considered Minimum Staff under the JAF Emergency Plan and will be designated as Full-Augmented Staff. The Full-Augmented ERO Staff will be managed under an EPIP consistent with the NRC's Alternative Guidance.

- TSC Director
- TSC Maintenance Manager
- TSC Technical Manager
- EOC Communicator
- EOC State Liaison
- EOC County Liaison
- JIC Media Monitor/Rumor Control Coordinator
- OSC Chemistry Person

The following positions will be reduced in number consistent with the NRC's Alternative Guidance.

- Mechanical Maintenance Technician – reduction of one (1) position
- Electrical Maintenance Technician – reduction of one (1) position

Additional changes include:

- Three (3) RP Technicians will be changed from 60-minute responders to 90-minute responders consistent with the NRC’s Alternative Guidance.
- The (2) Offsite Monitoring Teams will be shared with the Nine Mile Point Nuclear station located at the same site as JAF.

The JAF minimum ERO staff positions are being revised as follows:

Current Minimum Staff Positions	Proposed Minimum Staff Positions (response times are 60 minutes unless otherwise noted)
Technical Support Center (TSC)	
Station Emergency Director	No Change
Operations Manager	Operations Manager (Emergency Classification Advisor)
ENS Communicator	No Change
Rad Protection Manager	No Change
Core Thermal/Hydraulic Engineer	No Change
Mechanical Engineer	No Change
Electrical Engineer	No Change
Security Coordinator	No Change
TSC Director	Relocated to EPIP as Full Augmentation
Maintenance Manager	Relocated to EPIP as Full Augmentation
Technical Manager	Relocated to EPIP as Full Augmentation
Emergency Operations Facility (EOF)	
Corporate Emergency Director	No Change
State / Local Communicator	No Change
Radiation Protection Manager	No Change
N/A	Added Dose Assessment Coordinator
N/A	Added EOF Computer Specialist @ 90 min
EOC Communicator	Relocated to EPIP as Full Augmentation
State Liaison	Relocated to EPIP as Full Augmentation
County Liaison	Relocated to EPIP as Full Augmentation
Joint Information Center (JIC)	
Corporate Spokesperson	Corporate Spokesperson (@ 90 min.)
JIC Director	JIC Director (@ 90 Min)
N/A	Added Public Information Director (@ 90 min.)
Media Monitor / Rumor Control Coord	Relocated to EPIP as Full Augmentation
Operations Support Center (OSC)	
OSC Director	No Change
Offsite Field Team #1 Personnel	No Change
Offsite Field Team #1 Driver	No Change
N/A	Added Offsite Field Team Personnel (@ 90 min.)
N/A	Added Offsite Field Team Driver (@ 90 min.)

Current Minimum Staff Positions	Proposed Minimum Staff Positions (response times are 60 minutes unless otherwise noted)
Onsite Field Team member #1 (onsite surveys)	No Change
Onsite Field Team member #2 (onsite surveys)	Deleted
RP Tech #1 (In-plant surveys)	No Change
RP Tech #2 (In-plant surveys)	No Change
RP Personnel #1 (In-Plant Protective Actions)	No Change
RP Personnel #2 (In-Plant Protective Actions)	RP Personnel #4 (@ 90 min.)
N/A	Added RP Personnel #5 (@ 90 min)
N/A	Added RP Personnel #6 (@ 90 min.)
I&C Maintenance #1	No Change (@90 min.)
Electrical Maintenance #1	No Change
Electrical Maintenance #2	Deleted
Mechanical Maintenance #1	No Change
Mechanical Maintenance #2	Deleted
Chemistry Technician	Relocated to EPIP as Full Augmentation
N/A	Added Mech Maint Supv/Lead(@90 min.)
N/A	Added RP Supv/Lead (@90 min.)
N/A	Added Elec Maint Supv/Lead (@90 min.)
N/A	Added I&C Supv/Lead (@90 min.)

2.2 Reason for the Proposed Changes

The JAF Emergency Plan is being revised to align with the recently issued NRC's Alternative Guidance. The revision to the NUREG-0654 guidance reflects changes to NRC regulations, guidance, and policies, as well as advances in technology and best practices that have occurred since the NUREG-0654 guidance was originally issued in November 1980.

2.3 JAF Emergency Plan Background

James A. FitzPatrick Nuclear Power Plant is a nuclear power plant with one boiling water nuclear reactor located approximately five miles northeast of Oswego, New York, on the shore of Lake Ontario. The site is also occupied by the Nine Mile Point Nuclear Station (NMP). JAF went into commercial service in 1975.

The JAF Emergency Preparedness Plan consists of the Exelon Nuclear Standardized Radiological Emergency Plan (EP-AA-1000) and a Station Emergency Plan Annex (EP-AA-1014). Additionally, the program provides direction and guidance through EIPs, and associated program administrative documents. The Emergency Plan outlines the basis for response actions that would be implemented in an emergency. Planning efforts common to all Exelon nuclear stations are encompassed within the Exelon Standardized Emergency Plan. The Standardized Emergency Plan establishes the

concepts, evaluation and assessment criteria, and protective actions that are necessary to limit and mitigate the consequences of potential or actual radiological emergencies.

The JAF Annex generally contains information and guidance that is unique to the station. The Annex and associated Addendums address site-specific criteria including:

- ERO Staffing
- Emergency Action Levels (EALs) located in Addendum 3 to the station Annex.
- Differences from the Standardized Emergency Plan (such as station-specific staffing commitments, unique aspects of ERO augmentation, etc.).
- Facility geography and location for a full understanding and representation of the station's emergency response capabilities.
- Plant specific facilities and equipment associated with the Emergency Preparedness Program.

2.3.1 James A. FitzPatrick Nuclear Power Plant Emergency Response Plan. On November 13, 1980, licensees were notified that the site EP would be reviewed in accordance with 50.47(b), Appendix E, and NUREG-0654/FEMA-REP-1. Revision 1. The JAF Emergency Plan was subsequently revised to include Table 5-1, Plant Personnel – Emergency Activity Assignments. The ERO staffing on the Table has remained essentially unchanged since that time. JAF subsequently added additional Minimum Staff positions to the Emergency Plan (ref. section 2.3 of the Emergency Plan Annex), however the staffing Table was unchanged. As a result, the Minimum Staff ERO are defined in two places within the Emergency Plan.

2.3.3 Exelon Nuclear Standardized Radiological Emergency Plan, Revision 26 – In April 2018, the JAF Emergency Plan was incorporated into the Exelon Fleet Standardized Emergency Plan under EP-AA-1000. This entailed changes to some position titles, and changes to implementing procedures in an effort to establish a mostly common ERO throughout the Exelon Fleet.

2.4 Minimum Staffing as discussed in James A. FitzPatrick Nuclear Power Plant's Emergency Plan

Those ERO positions designated as Minimum Staffing in the JAF Emergency Plan are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO positions that are the absolute minimum needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher ECL.

... "Facility Activation" refers to the decision to consider a facility fully operational based on the minimum staffing required in ERO staffing tables contained within

the station specific Annex and the ability of facility staffing and equipment to perform its designed function(s).

The positions which are considered Full-Augmented Staff (i.e., Non-Minimum Staff) are those positions which provide support for the Minimum Staff in their response to the emergency. The list of Full-Augmented positions and their current assigned tasks are listed in the JAF Emergency Plan Implementing Procedures.

2.5 EOF Activation as discussed in the James A. FitzPatrick Nuclear Power Plant Emergency Plan

The NRC's Alternative Guidance establishes that the EOF facility activate within 60 minutes of a Site Area Emergency (SAE) or greater ECL. Exelon has elected to activate the EOF within 60 minutes of an Alert or greater ECL. By establishing the EOF at the Alert level, certain EP functions such as Dose Assessment or State/local communications can be established immediately following the Alert classification at the EOF and need not be duplicated at the TSC.

The turnover of Command and Control of EP functions will occur through a conference line between the Main Control Room (MCR), TSC, and EOF and may occur simultaneously if all facilities are available. In this manner, there will be no delay in transferring functions such as Emergency Action Level (EAL) classifications, State/local Notifications, Protective Action Recommendations (PARs), and Emergency Exposure Control from the MCR to the respective ERF (i.e., TSC or EOF).

2.6 ERO Performance Validation

As part of the implementation of these changes, a confirmation of the capabilities of the final Minimum Staff personnel will be performed through an EP drill to demonstrate that no loss of function will result due to the changes in the ERO. The State of New York is invited to participate in this EP drill. Additionally, the NRC will be invited to observe the drill.

In support of this effort, and as documented in Enclosure 4 of this submittal, Exelon makes the following commitment:

Exelon will conduct a confirmation Emergency Preparedness Drill at one of the Exelon stations to demonstrate that no loss of EP function will result due to the proposed changes in the ERO. The drill will include each of the Emergency Response Facilities described in the Emergency Plan (i.e., MCR, TSC, OSC, EOF and JIC).

This commitment shall be completed prior to the implementation of the approved license amendment.

In addition, Exelon will institute a "Minimum Staff" drill to be conducted once per drill cycle. The drill will include participation from the Minimum Staff of the Emergency Operations Facility (EOF), the Joint Information Center (JIC), the Technical Support

Center (TSC), and the Operations Support Center (OSC) from one of the affected Exelon stations which have implemented the approved ERO staffing change license amendment. This will allow Exelon to periodically demonstrate that the Standardized Emergency Plan continues to effectively implement the required Emergency Preparedness functions utilizing only the Minimum Staff defined in the Emergency Plan. Since the ERO Minimum Staff is the same for each station under the Exelon Standardized Emergency Plan, it is not necessary to perform the drill for each station in a drill cycle. The stations would select one station to demonstrate the effectiveness of the minimum staff ERO. Credit for the "Minimum Staff" drill will be given to all of the affected stations. The drill will be evaluated in accordance with Exelon's Drill and Exercise Program; however, the drill may or may not be evaluated for DEP performance in accordance with NEI 99-02, "Regulatory Assessment Performance Indicator Guideline."

2.7 On-Shift Staffing Analysis (OSA)

Regulatory Issue Summary (RIS) 2016-10, "License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation," states that an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 should not be used to provide the primary basis to support the Technical Evaluation of a License Amendment Request (LAR). The OSA, however, may be utilized as part of the overall evaluation of staffing changes. The RIS states:

...an evaluation performed using only the guidance of NEI 10-05 does not satisfy the requirement to identify and evaluate changes to ERO augmentation timing or ERO augmentation staffing that reduces the capability to perform an emergency planning function.

In conjunction with this License Amendment Request, JAF performed an OSA per 10 CFR 50, Appendix E, Section IV.A.9. The results are used to support the conclusions made in this License Amendment Request for on-shift staffing; however, Exelon understands that the OSA comprises a select set of identified scenarios and should not be used as the sole basis for the conclusions in the technical evaluation supporting this amendment request.

3.0 TECHNICAL EVALUATION

The evaluation of the proposed changes is discussed below.

3.1 Technical Advancements and Support

The following section discusses technical changes in plant systems, procedures, EP equipment/programs and training, which have been completed to better support ERO functions, ease Operator burden and improve Augmented Staff efficiency. The following discussion describes the improvements implemented since the last revision of the NUREG-0654 staffing guidance.

3.1.1 Plant Process Computer

The Plant Process Computer (PPC) system provides for the Safety Parameter Display System (SPDS)) functions discussed below as well as data collection and processing, accounting, alarming and logging functions. An auxiliary function of the PPC is to transmit plant data to remote locations, including the TSC and the EOF.

The PPC and the SPDS provide a concise display of critical plant variables to the Main Control Room (MCR) personnel to aid them in rapidly and reliably determining the safety status of the plant. The PPC and SPDS are operated during normal plant operations, as well as during abnormal and emergency conditions. The principal purpose and function is to aid the MCR personnel during abnormal and emergency conditions in determining the safety status of the plant.

Parameters displayed by the PPC and SPDS are the quantitative and qualitative measures to indicate the accomplishment or maintenance of critical safety functions. Information needed to assess the status of the plant safety parameters is obtained by the measurement of key plant variables. The safety parameters utilized to assess the maintenance or accomplishment of the critical safety functions as required by NUREG-0737, Supplement 1, "Clarification of TMI Action Plan Requirements: Requirements for Emergency Response Capability," Section 4 are:

1. Reactivity control
2. Reactor core cooling and heat removal
3. Reactor coolant system integrity
4. Containment conditions
5. Radiation control

In general, the ranges of parameters monitored by the PPC and SPDS are identical to those ranges monitored by existing MCR instrumentation. Ranges displayed by the PPC/SPDS are adequate to cover plant responses analyzed in Updated Final Safety Analysis Report (UFSAR) Chapter 15, "Accident Analysis."

Benefits of the current level of computer capabilities include:

- Improved plant monitoring capability for emergency functions.
- Real-time plant data available through graphical displays.
- PPC PDS functions available to any desktop computer through the plant's Emergency Response Facilities.
- Programming capability for automated response such as indication of critical parameter alarms.
- Easier interface when switching between graphical displays.

The PPC system replaced multiple older and obsolete systems with a single, microcomputer-based operating platform incorporating the PPC and the SPDS as well as the following:

- Process Computer System
- Sequence of Events Recorder (SER)
- Radiation monitoring

By consolidating all of these systems onto a single platform, MCR personnel can quickly monitor all critical plant parameters from a single workstation. The following are some of the benefits of PPC:

- The Shift Manager has improved plant monitoring capability to support Emergency Director (ED) function.
- Workstations have the capability of being programmed for automated response (such as automatically indicating a critical parameter during events that may challenge that parameter).
- Data manipulation functions, such as plotting information graphically or recovering historical data, require fewer key strokes and are more easily performed.
- Much of the PPC functionality can be made available to any desktop computer through the plant's site-wide intranet.
- The increased capabilities of the PPC have enhanced timeliness of monitoring and assessing plant conditions.

JAF also utilizes a Digital Plant Viewer (DPV) system that permits personnel to view conditions in the plant where cameras are installed live-time prior to entry. The DPV also allows personnel to access live-time dose rate data in areas with installed Area Radiation Monitors (ARM). No RP Technician support is required to use DPV.

In aggregate, these improvements support the proposed change in ERO staffing by ensuring that major functions and tasks are completed more easily with less burdens on the MCR staff.

3.1.2 Dose Assessment

Radiological dose assessment has benefited from technological advances that make its use simpler and less time consuming. At the time of the startup, procedures describing methods for manually calculating offsite doses were provided in Emergency Plan Implementing procedures. The methods related various measured environmental media activity levels to dose rates for key isotopes and gross radioactivity measurements. The methods incorporate constants which simplified and sped up calculations. In 1993, JAF incorporated a computer-based method for Dose Assessment. The method consisted of a primary computerized meteorological/dose assessment computer program called EDAMS (Emergency Dose Assessment and Modeling System). This program included an enhanced Class A computer model that accounted for site specific spatial and

temporal variations in meteorological and atmospheric conditions, including lake breeze/on-shore flow effects and ground or elevated releases.

In January 2015, EDAMS was replaced by Unified Rascal Interface (URI), a Visual Basic.net program. URI is a more efficient program utilizing menus and toolbars with the majority of inputs on a single screen making the program more user friendly. The plant display systems have improved over the years allowing access to more data points that are needed within dose assessment. Redundant dose assessment computers were installed as part of the implementation of Cyber Security requirements. JAF has an individual plant data screen dedicated to the needs of dose assessment inputs.

The overall improvements in technology and information availability over the years have enabled the on-shift staff to assess plant conditions quickly and efficiently, and with less distraction than before. The computing power of modern computer processors allows for calculation of dose projections that take seconds rather than minutes.

3.1.3 Automated Call-Out Systems

Enhancements in automated call-out and paging systems have resulted in streamlined processes for activation of the ERO. The ERO activation can occur through a Web based or phone based system to initiate rapid notification of ERO members in lieu of individual calls to fill the individual ERO positions included in the current Emergency Plan for JAF. The system includes a primary activation system as well as back-up capability to ensure uninterrupted operation.

3.1.4 Procedural Improvements

a. Emergency Operating Procedures (EOPs)

Since the original Emergency Plan approval, EOPs have been improved through industry initiatives. EOPs generally use a symptom-based approach that demands less assessment and interpretation of plant conditions by the crew. In addition, the EOPs are better human factored, and have an improved layout allowing for more consistent implementation.

EOPs interface well with new technology such as the PPC. The PPC system is capable of graphically displaying plant conditions to assist in EOP execution.

Abnormal Operating Procedures (AOPs) also contain directional steps for when a review of the classification procedure is required to determine potential classifiable conditions. This prompts the user to identify applicable EALs.

b. Emergency Action Levels (EALs)

In 2011, JAF updated the EAL classification methodology to that published in NEI 99-01, Revision 5, "*Methodology for Development of Emergency Action Levels* ." The JAF EALs incorporate the new guidance that has simplified the classification process,

including the use of a matrix of EAL initiating conditions that streamlines the process of evaluating EALs against plant conditions.

3.1.5 Training

a. Operations Training

Training is used to strategically drive improved performance at JAF. Since NRC approval of the JAF Emergency Plan, the Systematic Approach to Training (SAT) has resulted in developing a task list for Operations personnel. The SAT process ensures training is conducted to industry-accepted standards, and has led to accreditation of the Operations Training Programs by the Institute of Nuclear Power Operations (INPO) National Academy for Nuclear Training.

A dynamic simulator is routinely used during Operations training. "As found" simulator evaluations that include emergency response scenarios are part of the requalification segment. Simulator scenarios are designed to be realistic and reflect a wide range of plant conditions, including emergency conditions. During the simulator evaluated sessions the MCR staff is taken from normal operations to accident conditions which require evaluation against Emergency Action Levels and may result in the declaration up to a General Emergency (GE). The Operations crew performs critical functions, such as classification, core damage assessment, accident mitigation, response prioritization, and communications without augmentation from additional responders. The proficiency of the MCR staff to perform these functions while maintaining situational awareness, without additional support is assessed during evaluated simulator sessions.

The Licensed Operator Requalification Training (LORT) Program includes licensed Operations crew performance evaluations that are to consider the scenario guidance attributes of INPO Operations Department Standing Instruction, ODSI-3, "*Operations Department Guidance for Conducting Crew Performance Evaluations.*"

INPO ODSI-3 provides guidance on the realistic integration of the emergency response into crew performance evaluations. The purpose is to ensure the additional challenges the Emergency Plan responsibilities add to the crew's ability to manage an event are realistically represented in the crew performance evaluations. Representing the event as realistically as possible, which includes the additional challenges of Emergency Plan responsibilities, helps promote the situational awareness necessary during a real event.

b. Shift Technical Advisor (STA) Training

The STA was originally trained as an advisor to the operating shift per NUREG-0737, "*Clarification of TMI Action Plan Requirements.*" In 2014, additional guidelines were developed by INPO for the training of STAs. This is detailed in the document ACAD 14-002, "*Guidelines for the Training and Qualification of the Shift Technical Advisor.*"

The ACAD 14-002 guidelines describe the role of the STA. The STA performs independent assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. They also contribute to operations during normal plant conditions. By routine monitoring of equipment and plant operations, the STA can focus on preventative actions in order to mitigate the consequences of an accident.

3.1.6 Radiation Protection Improvements

There have been many improvements in RP since the JAF staffing was established under NUREG-0654, Revision 1 guidance.

The following provides a summation of the technology/tools associated with the in-plant protective actions:

a. Access Control

- Access to the Radiologically Controlled Area (RCA) is controlled electronically.

b. Personnel monitoring

- Personnel are issued DLRs that are continuously worn for constant monitoring. No RPT support is needed for issuance of DLRs to on-shift emergency workers.
- Secondary dosimeters are issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.
- Automated whole-body monitors provide contamination monitoring. All radiation workers are qualified to use the automated whole-body monitors without RP Technician interface.
- In circumstances when the automated whole-body monitors are not available, hand held friskers are used for personnel contamination monitoring. All radiation workers are qualified to use the hand-held friskers without RP Technician interface.

c. Dosimetry

- Personnel are issued DLRs that are continuously worn for constant monitoring.
- Secondary dosimeters are self-issued through the electronic access control system. The secondary dosimeters are self-reading, alarming electronic dosimeters that provide readout of accumulated dose and ambient dose rate. No RP Technician support is needed for issuance of electronic dosimeters.
- If a DLR is lost or damaged under emergency conditions, additional DLRs are staged for emergency issuance.
- If an electronic dosimeter is lost or damaged, additional electronic dosimeters are available.

d. Area Radiation Monitors (ARMs) are also used and reviewed prior to dispatch of personnel into the plant. JAF has multiple ARMs throughout the plant.

Some RP Technician support functions associated with in-plant protective actions such as access control, personnel monitoring, dose assessment, and dosimetry now require less dedicated support time since they are covered by plant process enhancements (newer technology/tools).

These technology/tools use available equipment such as portal monitors, self-alarming dosimeters, and an automated access control point.

All onsite ERO members expected to be dispatched into the plant for evaluation, operations, or repair activities are Radiation Worker qualified and understand and are trained on how to use the available tools.

3.1.7 Improvements Summary

The improvements to staffing, equipment, procedures, and training that have occurred since initial approval of the JAF Emergency Plan have resulted in a significant increase in the on-shift capabilities. Based on these improvements, it is concluded that there would be no significant degradation or loss of any functional task as a result of the proposed changes in ERO staffing.

3.2 Functional Analysis

This analysis evaluates the impact of implementing the changes in staffing on the ERO ability to perform the major tasks for the major functional areas of the JAF Emergency Plan. The analysis demonstrates that no degradation or loss of function would occur as a result of the change.

3.2.1 EP Function: Command and Control (formerly Emergency Direction and Control) The Command and Control function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide overall ERO command and control, until relieved.
- Approve EAL classifications and/or Protective Action Recommendations (PARs), until relieved.
- Authorize personnel dose extensions, until relieved.

This function is important for effective emergency response because adequate Command and Control enables the JAF ERO to effectively develop priorities for response planning and corrective action(s) and to provide a unified approach to the event response by providing a single individual with overall command and control authority. The function is staffed and maintained at all times and is assigned to the Operations Shift Manager (SM). The augmentation (relief) of this position is intended to relieve the SM of EP functions so that the SM can focus on the event response from an operations perspective. This is available within 60 minutes of an Alert ECL declaration, or greater, and is a position staffed by the TSC ED. In addition, the EOF Corporate ED will take responsibility for those EP functions associated with PARs following activation of the EOF, also at the Alert or greater ECL.

- a. On-Shift Staff – The table below identifies the current, proposed, and NRC's Alternative Guidance for this EP Function and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Command and Control – On-shift		
Current Emergency Plan	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) Shift Manager 	<ul style="list-style-type: none"> • Shift Emergency Director 	<ul style="list-style-type: none"> • Operations Shift Manager

Emergency Plan Change Assessment

The JAF existing on-shift staffing table currently aligns with the NRC's Alternative Guidance.

NRC's Alternative Guidance Alignment

JAF will maintain the existing title for this EP Function. The NRC's Alternative Guidance Operations Shift Manager will be titled Shift Emergency Director at JAF.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function. Note that JAF TSC, Station Emergency Director (SED) and Corporate Emergency Director (CED) is not listed on Table 2-1, but rather listed as Minimum Staff in section 2.3 of the station Emergency Plan Annex, EP-AA-1014.

EP Function: Command and Control – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC Station Emergency Director • (1) EOF Corporate Emergency Director 	<ul style="list-style-type: none"> • (1) TSC Station Emergency Director (at Alert or higher) • (1) EOF Corporate Emergency Director (at Alert or higher) 	<ul style="list-style-type: none"> • (1) TSC Emergency Coordinator (at Alert or higher) • (1) EOF Emergency Director (at SAE or higher)

The proposed ERO staffing is consistent with the NRC's Alternative Guidance. There is one difference between the JAF proposed Minimum Staff and the NRC's Alternative Guidance. Specifically, JAF will staff the EOF ED within 60 minutes of an Alert or higher ECL, while the NUREG-0654 guidance staffs the position within 60 minutes of a SAE or higher ECL. This difference expands the JAF emergency response at the Alert ECL and will ensure that the EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE ECL.

3.2.2 EP Function: Communications

The Communications function includes the following tasks as defined in the NRC's Alternative Guidance:

- Communicate EAL classifications and PARs to Offsite Response Organizations (OROs), including the NRC, until relieved.

This function is important for effective emergency response. The function ensures adequate communication onsite and offsite to successfully implement the emergency plans. JAF maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty and has been assessed through an on-shift staffing analysis, via 10 CFR 50, Appendix E, Section IV.A.9, to ensure that this EP Function can be performed when needed without any additional competing priorities.

The augmentation of this position is available within 60 minutes of an Alert ECL, or greater, and is intended to relieve the on-shift staff of this EP function. This function consists of two (2) ERO members to fulfill the communications needs (i.e., one (1) for the NRC and one (1) for State/local notification and status updates). Under the JAF Emergency Plan, additional Communicators can be called upon as needed, and at the discretion of the ED.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – On-shift		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (1) Nuclear Plant Operator (Shift Communicator) 	<ul style="list-style-type: none"> (1) Shift Communicator 	<ul style="list-style-type: none"> (1) Communicator¹ <p>¹ Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

There are no changes between the current JAF Station Emergency Plan staffing and the proposed changes to the Emergency Plan for the On-shift Communications function.

NRC’s Alternative Guidance Alignment

JAF will keep the Shift Communication function consistent with the NRC’s Alternative Guidance. The Shift Communicator will perform NRC and State/local communications as needed until relieved.

A difference identified related to the JAF implementation of the NRC’s Alternative Guidance is the absence of the note (1) regarding collateral duties. The notes states: *"Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time,"* and is not included in the JAF Emergency Plan. This note is not necessary because no collateral duties are assigned to the on-shift Communicator under the JAF Emergency Plan.

There are no other deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Communications – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local communicator • (1) TSC Director • (1) EOC Communicator • (1) State Liaison • (1) County Liaison 	<ul style="list-style-type: none"> • (1) TSC ENS Communicator • (1) EOF State/local Communicator <p>(additional Communicators will be staffed as needed)</p>	<ul style="list-style-type: none"> • (1) TSC Communicator (NRC) • (1) TSC Communicator (ORO) • (1) EOF Communicator @ SAE ECL or greater <p>As needed (one communicator staffed at TSC for NRC communications if needed)</p>

Emergency Plan Change Assessment

JAF is maintaining the Minimum Staff TSC ENS and EOF State/local Communicator as currently described in the JAF Emergency Plan with no proposed changes to those positions. Additional Communicators will be staffed at the EOF or TSC as needed.

The following positions, identified as minimum staff under the current JAF Emergency Plan, are being re-categorized as Full-Augmented staff and will continue to be managed within an EPIP.

TSC Director – The TSC Director is identified as Minimum Staff in the JAF Emergency Plan Annex, Section 2.3, but is not listed on EP-AA-1014, Table 2-1, Plant Personnel - Emergency Action Assignments. The TSC Director is reclassified as Full Augmentation. The TSC Director responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The TSC Director performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific responsibilities as defined by the Standardized Emergency Plan (EP-AA-1000) include:

- *Verify that qualified individuals are filling Communicator positions in the Control Room, TSC and OSC.*
- *Supervise the activities of the Logistics Coordinator and state/local Communicator.*
- *Ensure that communications are established with appropriate parties as directed by the Station Emergency Director.*
- *Ensure that all required notifications to offsite governmental agencies (state/local and NRC) are timely and accurate.*
- *Act as the Exelon Nuclear Liaison to any NRC Site Team Representatives.*
- *Ensure that the NRC Site Team Representatives are directed to their appropriate counterparts.*
- *Assist the Corporate Emergency Director in the acquisition of information for off-site agency updates.*
- *Record and relay inquiries to the Station Emergency Director. In addition, record responses to such inquiries prior to transmission.*
- *Assist the Station Emergency Director in maintaining proper records.*

These tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the TSC Director position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The TSC Director position and the listed responsibilities are being relocated to an EPIP.

EOC Communicator – The EOC Communicator is identified as Minimum Staff in the JAF Emergency Plan Annex, Section 2.3, but is not listed on EP-AA-1014, Table 2-1, Plant Personnel - Emergency Action Assignments. The EOC Communicator is reclassified as Full Augmentation. The EOC Communicator responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The EOC Communicator performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific responsibilities as defined by the Standardized Emergency Plan (EP-AA-1000) include:

- *Coordinate and dispatch EOC Liaisons as needed or requested.*
- *Establish and maintain periodic contact with each location where Exelon Nuclear EOC Liaisons have been dispatched.*

- *Ensure EOC Liaisons are provided event information and notifications.*
- *Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.*

These tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the EOC Communicator position can be deleted from the Minimum Staff and maintained as a Full- Augmentation position. The EOC Communicator position and the listed responsibilities are being relocated to an EPIP.

State Liaison – The State Liaison is identified as Minimum Staff in the JAF Emergency Plan Annex, Section 2.3, but is not listed on EP-AA-1014, Table 2-1, Plant Personnel - Emergency Action Assignments. The State Liaison is reclassified as Full Augmentation. The State Liaison responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The State Liaison performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific responsibilities as defined by the Standardized Emergency Plan (EP-AA-1000) include:

- *Monitor and report state EOC activities to the EOF.*
- *Conduct briefings and answer questions as requested.*
- *Assist Emergency Public Information personnel in rumor control and media monitoring.*

These tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the State Liaison position can be deleted from the Minimum Staff and maintained as a Full- Augmentation position. The State Liaison position and the listed responsibilities are being relocated to an EPIP.

County Liaison – The County Liaison is identified as Minimum Staff in the JAF Emergency Plan Annex, Section 2.3, but is not listed on EP-AA-1014, Table 2-1, Plant Personnel - Emergency Action Assignments. The County Liaison is reclassified as Full Augmentation. The County Liaison responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The County Liaison performs support activities such as supervisory actions, validations, liaison, assistance and monitoring activities. Specific

responsibilities as defined by the Standardized Emergency Plan (EP-AA-1000) include:

- *Monitor and report County EOC activities to the EOF.*
- *Conduct briefings and answer questions.*
- *Provide simplified explanations to EOC personnel of technical details distributed through approved channels.*
- *Assist with confirmation/verification of information distributed through approved channels.*
- *Provide media at the EOC with approved Exelon Nuclear press releases.*
- *Assist Emergency Public Information personnel in rumor control and media monitoring.*

These tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the County Liaison position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The County Liaison position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

JAF will maintain the ENS (NRC) Communicator and State/local (ORO) Communicators consistent with the NRC's Alternative Guidance; however, the reporting location differs. Specifically, the function is maintained with one (1) ENS Communicator staffed at the TSC within 60 minutes to perform NRC communications and one (1) State/local Communicator at the EOF within 60 minutes to perform the State/local notifications with the (OROs).

The NRC's Alternative Guidance designates the minimum staff ORO communication (State/local) is located at the TSC. For JAF, the State/local Communicator is located in the EOF. This is considered acceptable because the JAF EOF is activated at the Alert or higher ECL. By establishing the EOF at the Alert level, the function would be available at the same time as if it were located in the TSC.

Additionally, the NRC's Alternative Guidance, identified an EOF NRC communicator to be staffed within 60 minutes of an SAE or higher ECL. Exelon proposes to credit the TSC ENS communicator to provide information to the NRC in conjunction with the commitment to staff additional communicators as needed.

3.2.3 EP Function: Radiation Protection (formerly Radiological Accident Assessment / Protective Actions (in plant) operational aspects)

The RP function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions.
- Provide in-plant surveys.
- Control dosimetry and radiologically controlled area access.

The ability to provide radiological expertise when the plant is experiencing an event with serious radiological consequences is crucial, due to the unknown radiological environment faced by emergency workers, particularly at the onset of the event.

Under the proposed JAF ERO staffing and the NRC’s Alternative Guidance, the augmentation (support) of this position occurs in two (2) stages: 1) within 60 minutes of an Alert ECL or greater, three (3) additional qualified RP staff are available; and 2) within 90 minutes of an Alert ECL, or greater, an additional three (3) additional qualified RP staff are available, and both are staffed in the OSC.

- a. On-Shift Staff – The table below identifies the current and proposed Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Radiation Protection – On-shift		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) RP Technician • (1) RP Technician (RP/Chem) 	<ul style="list-style-type: none"> • (1) Radiation Protection Personnel 	<ul style="list-style-type: none"> • (2) Radiation Protection Personnel

Emergency Plan Change Assessment

JAF currently maintains one (1) RP Technician and one (1) RP Technician (RP/Chem) on-shift to satisfy the Emergency Plan requirements. Following the acquisition of JAF by Exelon, both JAF and NMP, Units 1 and 2 are now owned and operated by Exelon. The Standardized Emergency Preparedness program is common to both NMP and JAF, with shared EIPs, training programs, and corporate staff. The sites are located adjacent to each other, share common fencing, and are easily within walking distance of each other. The NRC’s Alternative Guidance

provides specific guidance regarding RP staffing for sites with multiple units. The guidance states for the RP Function. *“this function should be staffed by 2 qualified RP staff members on-shift or 1 per unit for multi-unit sites”*. Exelon proposes to staff 1 RP Technician to be assigned to JAF, in conjunction with two (2) RP Technicians assigned to the NMP facility. In addition, JAF will maintain another qualified individual dedicated to perform Dose Assessment activities (as discussed in section 3.2.5. Additionally, the on-shift RP Technicians from NMP would be available to support JAF in an emergency, if needed. The NMP RP Technicians would be badged to access the JAF facility.

The proposed revision removes the Chemistry reference from Table 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654, is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at JAF. Early indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR.

An on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Chemistry major task is not required per JAF procedures prior to augmentation. The OSA indicates that the primary responsibility of the on-shift Chemistry Technician is chemistry/radiochemistry sampling to identify fuel damage; however, no chemistry sampling tasks were noted as being time critical in any of the analyzed events.

NRC’s Alternative Guidance Alignment

The proposed ERO staffing is consistent with the NRC’s Alternative Guidance in that (3) RP Technicians would be available to support the three units at NMP and JAF. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance. JAF will maintain one (1) RP personnel on-shift in conjunction with the 2 RP personnel at NMP to perform the RP functions and tasks for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access.

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Radiation Protection – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (8) RP Technicians (Onsite (out of plant) surveys. In-Plant Surveys. 	<ul style="list-style-type: none"> (3) Additional RP Personnel @ 60 minutes (OSC) (3) Additional RP Personnel @ 90 	<ul style="list-style-type: none"> Additional Radiation Protection Technicians @ 60 minutes (In addition to personnel on-shift) (3) (OSC)

<p>Out of Plant and Offsite Surveys. Radiation Protection, Access Control. HP coverage for repair, mitigative actions, search and rescue, first aid and firefighting. Personnel Monitoring. Dosimetry.)</p> <ul style="list-style-type: none"> (1) Chem Technician (RP / Chem) 	<p>minutes (OSC)</p>	<ul style="list-style-type: none"> Additional Radiation Protection Technicians @ 90 minutes (In addition to personnel on-shift and those responding within 60 min) (3) (OSC)
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Emergency Plan Change Assessment

Currently, JAF designates eight (8) Minimum Staff RP Technicians as required to support the EP Major Tasks of Onsite (out of plant) surveys, In-Plant Surveys, Out of Plant and Offsite Surveys, Radiation Protection, Access Control, HP coverage for repair, mitigative actions, search and rescue, first aid and firefighting, personnel monitoring, and dosimetry. Note that included with the eight (8) RP Technicians is the responsibility for Onsite and Offsite Field Teams. These tasks are further discussed in section 3.2.11 of this LAR.

JAF proposes to maintain six (6) Minimum Staff RP Technicians for this function; and consistent with the NRC’s Alternative Guidance, three (3) of those RP Technicians will respond within 90 minutes.

Note for the purposes of this table, an RP Personnel consists of persons with an ANSI qualification. This includes RP Technicians or qualified RP Staff members. This is consistent with the guidance provided in the NRC’s Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, “Emergency Response Organization”.

Technological advances in RP tasks (i.e., protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access) support the additional time proposed in the NRC’s Alternative Guidance for the three (3) RPTs. This includes the availability of installed area, process, airborne and effluent radiation monitors, automated systems and information technology solutions supporting RWPs and dosimetry issuance, and enhanced work processes that are available under accident conditions. Supporting tools and processes include portal monitors, self-alarmed dosimeters, and the automated access control system for the RCA that maintain active RWPs (e.g., the system

verifies qualifications, dose margins, and access requirements).

The proposed revision also removes the one (1) Minimum Staff RP/Chemistry personnel from Table 2-1. The Chemistry/Radiochemistry function listed in Table B-1 to Revision 1 of NUREG-0654 is no longer needed as the need for immediate reactor coolant sampling has been reduced due to the variety of available plant indications of fuel damage available at JAF. Early indications of fuel damage can be identified through Containment Radiation Monitors, Core Instrumentation, or Effluent Radiation Monitors, all of which are available in the MCR. If reactor sampling is desired, Chemistry Technicians are on staff at JAF and would be called in as necessary to support the event.

NUREG-0654, Revision 2 Alignment

JAF will staff three (3) additional RP Technicians at 60 minutes and three (3) more RP Technicians at 90 minutes in the OSC, consistent with the NRC's Alternative Guidance. The augmented staff will perform the RP functions for protection coverage for responders, in-plant surveys, dosimetry and radiologically controlled area access. There are no differences or deviations from the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.4 EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection

Supervision of RP staff and Site RP Functions include the following tasks as defined in the NRC's Alternative Guidance:

- Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved.
- Recommend onsite protective actions and offsite PARs to the applicable decision-maker, until relieved.
- Direct all radiation protection activities, including Field Monitoring Team (FMT) direction, until relieved.
- Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved.

This function is important for effective emergency response to a radiological event because the management of RP resources, and the assistance this position provides the ED, is crucial for response to radiological events.

Radiological events can be very significant and constantly evolving, and require significant expertise in radiation and radiological consequences. The evaluation of radiological events, and the development of effective PARs, requires this expertise to support the ED in making these decisions.

This position is also responsible for the direction and protection of FMTs.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC. Also for JAF, at the Alert ECL or greater, an EOF RP Manager position is staffed. Note that this position is primarily tasked with providing the applicable command and control position (i.e., Corporate ED) relevant expertise on radiological events. This will increase the JAF emergency response at the Alert ECL and will ensure EOF ERO will be immediately available should an Alert classification escalate to a SAE or GE.

- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – On-shift		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Shift Emergency Director 	<ul style="list-style-type: none"> Operations Shift Manager

Emergency Plan Change Assessment

The current JAF Emergency Plan does not specifically identify this Function on-shift under Table 2-1. To align with the NRC’s Alternative Guidance, the Function is being added and assigned to the Shift ED. The tasks identified above align with current responsibilities for the Shift ED. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the major tasks under this Function identified above can be performed when needed without any additional competing priorities.

NRC’s Alternative Guidance Alignment

JAF will utilize the Shift ED on-shift to perform the *"Supervision of Radiation Protection Staff"* function until relieved by the Augmented Staff. There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Radiation Protection Staff and Site Radiation Protection – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
N/A	<ul style="list-style-type: none"> • (1) TSC Radiation Protection Manager • (1) EOF Radiation Protection Manager 	<ul style="list-style-type: none"> • (1) TSC Site Radiation Protection Coordinator • (1) EOF Radiation Protection Manager @ SAE ECL or greater

Emergency Plan Change Assessment

Although JAF will staff both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL consistent with current Emergency Plan commitments, the specific Supervision of Radiation Protection Staff is not identified on the JAF Emergency Plan Table 2-1. The proposed Emergency Plan revision identifies two (2) RP Managers and identifies one located at the TSC and one and EOF to fulfill this function.

NRC’s Alternative Guidance Alignment

The TSC RP Manager will perform site related duties which include actions to recommend onsite protective actions, to direct all radiation protection activities at the site, and to evaluate and assess plant radiological data in the development of onsite protective actions. The TSC RP Manager will also provide relevant information to applicable communicators who are communicating offsite PARs to OROs.

The EOF RP Manager will perform duties which include actions to support evaluation of offsite radiological data in the development of onsite protective actions and offsite PARs, and to direct FMTs at the Alert ECL, or greater.

JAF staffing of this Function is different than the NRC’s Alternative Guidance, in that JAF staffs both the TSC RP Manager and the EOF RP Manager at 60 minutes from an Alert ECL. The NRC’s Alternative Guidance does not staff the EOF RP Manager until the SAE declaration.

This will increase the JAF emergency response at the Alert ECL and will ensure that the EOF RP Manager will be immediately available should an Alert classification escalate to a SAE or GE ECL.

The proposed ERO staffing activates the EOF earlier than the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

3.2.5 EP Function: Dose Assessments/Projections

The Dose Assessments/ Projections function includes the following tasks as defined in the NRC’s Alternative Guidance:

- Perform dose assessments/projections and provide input to applicable PAR decision-maker, until relieved.

This function is important for effective emergency response to a radiological event because timely dose assessments/projections ensure accurate and timely PARs can be developed, when necessary. JAF maintains the ability to staff this position at all times. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function can be performed when needed without any additional competing priorities.

The augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the EOF.

Maintaining the ability to perform dose assessments/projections at all times ensures that the consequences of a radiological event, to the public, are effectively mitigated by providing timely dose related information to the Station ED (TSC) or Corporate ED (EOF) depending on which position is in command and control. As a result, this position (Function) is expected to be available on-shift and in the EOF depending on the ECL declared.

- a. On-Shift Staff – The table below identifies the current and JAF Emergency Plan on-shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – On-shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
(Performed as a collateral duty by the Shift Chemistry Technician)	<ul style="list-style-type: none"> • Shift Dose Assessor 	<ul style="list-style-type: none"> • Dose Assessment / Projections Staff ¹ <p>¹Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The Shift Dose Assessment Function is not specifically annotated as assigned to on-shift staff in JAF EP-AA-1014, Table 2-1, Plant Personnel - Emergency Action Assignments, however JAF's EIPs maintain this position at all times. Under the EIPs, JAF utilizes on-shift Chemistry personnel to perform the Dose Assessment Function prior to augmentation of the ERO. The JAF Emergency Plan will not include the annotation that states *"Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time."* Considering the site will staff (1) RP Technician assigned to JAF (in conjunction with the 2 RP Technicians at NMP), the function of Dose Assessment will not be a collateral duty at JAF.

NRC's Alternative Guidance Alignment

JAF will maintain a dedicated Shift Dose Assessor on-shift to perform dose assessments/projections and provide input to applicable PAR decision-maker functions. This function is performed by available qualified personnel (e.g., the on-shift Chemistry Technician). Additionally, an on-shift staffing analysis under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that the Dose Assessment function on shift can be performed by dedicated Shift Dose Assessor on shift without any additional competing priorities. The proposed ERO staffing for this Function is different than the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Dose Assessments/Projections – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> (2) Radiation Protection Manager or other RP Supervisor 	<ul style="list-style-type: none"> (1) EOF Dose Assessment Coordinator 	<ul style="list-style-type: none"> TSC (1) Dose Assessment/ Projection Staff EOF (1) Dose Assessment / Projection Staff @ SAE or greater

Emergency Plan Change Assessment

JAF currently identifies the TSC and EOF Radiation Protection Manager for the Dose Assessment Function in EP-AA-1014, Table 2-1. The proposed revision to the JAF Emergency Plan will change the responsibility to a new Minimum Staff position, EOF Dose Assessment Coordinator, and maintain the position to perform off-site dose assessments. The Dose Assessment Coordinator will be activated within 60 minutes of an Alert ECL or greater. The Dose Assessment Coordinator will report to the EOF RPM.

NRC's Alternative Guidance Alignment

The JAF proposed ERO staffing for the Dose Assessment Function is different than that in the NRC's Alternative Guidance. Specifically, the NRC's Alternative Guidance provides for one (1) Dose Assessment position to be staffed at the TSC within 60 minutes of an Alert ECL or higher. A second Dose Assessor is staffed at the EOF within 60 minutes of an SAE ECL or higher. JAF proposes to staff one (1) EOF Dose Assessor at 60 minutes from an Alert ECL or higher.

The NRC's Alternative Guidance was developed based on the premise that the TSC is activated at the Alert ECL or higher and the EOF is activated at the SAE ECL or higher. While the Dose Assessment function falls more in line with the EOF responsibilities, it is not activated within the NRC's Alternative Guidance until a SAE ECL or higher. In order to provide early relief of the on-shift Dose Assessment function for Alert ECLs, the guidance provides a TSC Dose Assessor, which is available at the Alert ECL.

The JAF EOF is staffed within 60 minutes of an Alert ECL or higher, making it unnecessary to staff the redundant TSC Dose Assessor. The EOF Dose Assessor Coordinator will perform duties which include actions to perform dose assessments/projections and provide input to applicable PAR decision-maker at the Alert ECL, or greater.

3.2.6 EP Function: Emergency Classifications

The Emergency Classifications Function includes the following task as defined in the NRC's Alternative Guidance:

- Evaluate plant conditions and recommend emergency classifications, until relieved.

This function is important to ensure a prompt and effective emergency response. Because the impetus for implementing the Emergency Plan is the determination of an EAL at the correct ECL, having this ability maintained at all times is essential. This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The

augmentation of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.

Maintaining the ability to perform this function at all times ensures that ECL decisions, and as applicable, the PAR decisions, are timely and accurate as these decisions have a direct relationship to public health and safety from the consequences of a radiological event. This function works in coordination with the ED in command and control, and as a result is available on-shift and in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – On-shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> None specified 	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) Emergency Classification Advisor <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The JAF Emergency Plan Table 2-1 does not currently specify a separate Emergency Classification Function for the On-shift Staff. JAF proposes to revise Emergency Plan Table 2-1 to align with the NRC’s Alternative Guidance. This function is assigned to a pre-existing on-shift staff member as a collateral duty (e.g., STA). The STA/IA has the experience and training to fill this position and the responsibilities for monitoring plant operation are consistent with the EP position responsibilities. The STA/IA is trained in EAL classification and is available in the MCR to evaluate plant conditions and recommend emergency classifications as described in the NRC’s Alternative Guidance.

The STA’s responsibilities are defined in Operations Procedure OP-AA-100-101, Roles and Responsibilities of On-Shift Personnel. The procedure states that the STA/IA maintains a sufficient level of independence commensurate with station conditions to act as an advisor to the Shift Manager during abnormal and emergency conditions. During abnormal and emergency conditions the procedure states that

the STA/IA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This assessment shall include monitoring critical parameters and challenges to radioactive release barriers. The STA/IA is also responsible to perform an independent assessment of Emergency Plan classification (as time permits) and should not cause a delay in making the event classification within the required time limit.

This practice has been demonstrated and evaluated in the Operations Training Program and EP Drills and Exercises. Additionally, the STA's role as an Emergency Classification Advisor is assessed in the OSA under 10 CFR 50, Appendix E, Section IV.A.9.

NRC's Alternative Guidance Alignment

JAF will maintain an Emergency Classification Advisor on-shift to evaluate plant conditions and recommend emergency classifications. There are no differences or deviations from the NRC's Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Emergency Classifications – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC's Alternative Guidance
<ul style="list-style-type: none"> • None specified 	<ul style="list-style-type: none"> • TSC (1) Operations Manager (Emergency Classification Advisor) 	<ul style="list-style-type: none"> • TSC (1) Emergency Classification Advisor

Emergency Plan Change Assessment

The current JAF Emergency Plan does not specifically identify a Classification Advisor on Table 2-1. JAF proposes to utilize the current minimum staff position Operations Manager to support EAL Classification. JAF proposes to revise the Emergency Plan Table 2-1 to include the Emergency Classification Function and assign the TSC Operations Manager to support and advise the non-delegable responsibility of EAL Classification. The Operations Manager under the Emergency Plan has the necessary background, experience and training to fill this position.

NRC's Alternative Guidance Alignment

JAF will staff a TSC Operations Manager at 60 minutes to evaluate plant conditions and recommend emergency classifications. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.7 EP Function: Engineering

The Engineering function includes the following tasks as defined in the NRC's Alternative Guidance:

- Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. Specifically:
 - An engineer to monitor and evaluate changing core/thermal hydraulic issues is important to effective emergency response because monitoring and evaluating core conditions, or thermal hydraulic conditions of the reactor coolant system, can support timely corrective action(s), ECL declarations, and subsequent PARs. Radiological events from a power reactor come from damage to an operating reactor core, or the systems used to cool the core, and engineering expertise in this area can greatly benefit the licensee's response.

This function is assigned to a pre-existing on-shift staff member as a collateral duty. An OSA under 10 CFR 50, Appendix E, Section IV.A.9 was performed to ensure that this EP function is performed when needed without any additional competing priorities. The augmentation of this function is available within 60 minutes of an Alert ECL or greater, and is staffed in the TSC.

- An engineer to provide expertise in Electrical/ I&C systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60-minutes of an Alert ECL, or greater, and is staffed in the TSC.
 - An engineer to provide expertise in mechanical systems and equipment supports the evaluation of these systems/equipment and supports the development of repair plans if necessary. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed in the TSC.
- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan On-Shift ERO, as well as the NRC's Alternative Guidance for this EP Function.

EP Function: Engineering – On-shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> (1) Shift Technical Advisor/Incident Advisor (IA) 	<ul style="list-style-type: none"> (1) STA/IA <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) Core/Thermal Hydraulics Engineer <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The current JAF Emergency Plan utilizes the STA/IA to satisfy the on-shift responsibilities for the Plant System Engineering, Repair, and Corrective Actions Function (Major Tasks: Technical Support).

Under the NRC’s Alternative Guidance, the EP Engineering function is included as an on-shift function. The JAF Emergency Plan would be revised to identify the Engineering Function as a collateral duty satisfied by the STA/IA on-shift. Under JAF’s procedure OP-AA-101-111, Roles and Responsibilities of On-Shift Personnel, the STA/IA is responsible to perform an independent assessment and diagnosis of station conditions and provides recommendations to the operating team. This assessment shall include monitoring critical parameters and challenges to radioactive release barriers. The STA/IA is also responsible to monitor Critical Safety Function Status per the EOPs.

NRC’s Alternative Guidance Alignment

JAF will maintain STA/IA on-shift to perform the Core/Thermal Hydraulics Engineer function as a collateral duty. There are no differences or deviations from the NRC’s Alternative Guidance and the proposed changes to the JAF Emergency Plan.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Engineering – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) Core Thermal/Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical Engineer • (1) TSC Technical Manager 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulics Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation & Controls Engineer 	<ul style="list-style-type: none"> • (1) Core / Thermal Hydraulic Engineer • (1) Mechanical Engineer • (1) Electrical / Instrumentation and Control (I&C) Engineer

Emergency Plan Change Assessment

The JAF Emergency Plan currently identifies a Minimum Staff of one (1) Core Thermal/Hydraulic Engineer, one (1) Mechanical Engineer, and one (1) Electrical Engineer consistent with the NRC’s Alternative Guidance. These positions will continue as Minimum Staff in the proposed JAF Emergency Plan Table.

The following position, currently identified as Minimum Staff under the JAF Station Emergency Plan, are being re-categorized as Full-Augmented staff and managed within an EPIP.

TSC Technical Manager – Under the JAF Station Emergency Plan, the TSC Technical Manager responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654 guidance, but rather support other personnel at the TSC. The position, as currently defined in the JAF Station Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The TSC Technical Manager performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Accumulate, tabulate and evaluate data on plant conditions.*
- *Evaluate plant parameters during an emergency to determine the overall plant condition.*
- *Coordinate core damage assessment activities.*

- *Identify data points and control parameters that the Operations staff should monitor.*
- *Ensure that current and adequate technical information is depicted on status boards.*
- *Identify and direct staff in the development of special procedures needed to effect long-term safe shutdown or to mitigate a release.*
- *Supervise the total onsite technical staff effort.*
- *Act as the TSC liaison with state and appropriate NRC Site Team representatives.*
- *Assist the Radiation Protection Manager for onsite radiological/technical matters.*
- *Assist the Station Emergency Director in evaluating plant based PARs (prior to Corporate Emergency Director accepting command and control) and changes in event classification.*
- *Supervise the activities of the TSC Technical Communicator.*
- *Assume the duties and responsibilities of an Evaluator when transition to Severe Accident Management Guidelines (SAMG) is initiated and supervise the activities of the SAMG Evaluator Team*

Each of these tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 guidance identified functions. As such, the TSC Technical Manager position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The TSC Technical Manager position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

JAF will staff a Core Thermal/Hydraulic Engineer, a Mechanical Engineer, and an Electrical Engineer at 60 minutes to provide engineering coverage related to their specific discipline. There are no differences or deviations from the NRC's Alternative Guidance. The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.8 EP Function: Security

The JAF Security Force is controlled and maintained by the NRC-approved Physical Security Plan (PSP) and is not reflected in the Emergency Plan. However, the establishment of a Security position in the TSC is advantageous to ensure effective

coordination between the security force and the ERO, particularly for events where offsite resources are necessary as well as for security related events and site personnel accountability. The augmentation (support) of this function is available within 60 minutes of an Alert ECL, or greater, and is staffed by Security personnel in the TSC to coordinate security-related activities with that of the ERO. The command and control staff of the TSC all respond within 60 minutes of an Alert ECL, or greater, to ensure that the ED has access to the resources and expertise of the site staff in order to develop response plans for a wide-spectrum of events.

- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Security – On-shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> Per the Security Plan 	<ul style="list-style-type: none"> Security staffing per the site-specific security plan 	<ul style="list-style-type: none"> Security staffing per the site-specific security plan

Emergency Plan Change Assessment

There are no changes between the current JAF Emergency Plan staffing and the proposed changes to the Emergency Plan for the on-shift Security function.

NRC’s Alternative Guidance Alignment

There are no differences or deviations from the NRC’s Alternative Guidance. The proposed ERO staffing is consistent with the NRC’s Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Security – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
(1) TSC Security Coordinator	<ul style="list-style-type: none"> (1) TSC Security Coordinator 	<ul style="list-style-type: none"> (1) TSC Security Liaison

Emergency Plan Change Assessment

JAF Emergency Plan Annex section 2.3 identifies the TSC Security Coordinator as an additional Minimum Staff position. There are no changes between the current JAF Emergency Plan staffing and the proposed changes to the Emergency Plan for the Minimum Staff Security function.

NRC's Alternative Guidance Alignment

JAF will staff a TSC Security Coordinator at 60 minutes to be a liaison to the Security Force. There are no differences or deviations from the NRC's Alternative Guidance.

The proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.9 EP Function: Repair Team Activities

The NRC has determined that, from an EP perspective, the ability to get Emergency Core Cooling System (ECCS) equipment operational was the primary basis for necessitating maintenance expertise while on-shift. The JAF ECCS are designed to be redundant and diverse such that common mode failures are very unlikely. From the JAF UFSAR:

Emergency Core Cooling Criteria

- *Emergency Core Cooling Systems are provided to prevent excessive fuel clad temperature as a result of a Loss of Coolant Accident.*
- *The Emergency Core Cooling Systems provide for continuity of core cooling over the complete range of postulated break sizes in the Reactor Coolant Pressure Boundary.*
- *The Emergency Core Cooling Systems are diverse, reliable, and redundant.*
- *Operation of the Emergency Core Cooling Systems is initiated automatically or manually when required, regardless of the availability of offsite power supplies.*

As a result of the redundant and diverse design, the need to accommodate maintenance functionality on-shift is unnecessary. Operations staff are trained to do those operator actions (e.g., lifting leads, installing jumpers, etc.) required to support the performance of Emergency Operating Procedures. Nevertheless, a minimum number of Maintenance personnel are assigned to respond to an event as part of the ERO, with more personnel available on an as-needed basis depending on the event.

The augmentation (support) of the Electrician and Mechanical positions occur within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC. The augmentation (support) of the I&C position is available within 90 minutes of an Alert ECL, or greater, and is staffed in the OSC. The OSC is the ERF associated with maintenance tasks, as directed by the Command and Control staff in the TSC.

- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan On-Shift ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – On-shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
Electrical Maintenance* Radwaste Operator* * Indicates that position may be provided by shift personnel assigned other functions.	N/A	N/A

Emergency Plan Change Assessment

The JAF Emergency Plan allows the Repair Activities Function to be performed as a collateral duty by plant Operators. The Emergency Plan identifies an Electrical Maintenance and the Radwaste Operator positions on shift as a collateral duty to satisfy the Repair and Mitigative Actions function in Table 2-1. The JAF on-shift staff are trained to perform all the necessary actions to initiate the station ECCS systems. The proposed revision utilizes the language from the NRC’s Alternative Guidance to delete this on shift function.

NRC’s Alternative Guidance Alignment

There are no differences or deviations from the NRC’s Alternative Guidance.

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Repair Team Activities – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (2) Mechanical Maintenance • (2) Electrical Maintenance • (1) I&C Maintenance 	<ul style="list-style-type: none"> • (1) OSC Mechanical Maintenance Technician • (1) OSC Electrical Maintenance Technician • (1) OSC I&C Technician @ 90 minutes <p>Additional Mechanical and Electrical Maintenance Techs as needed.</p>	<ul style="list-style-type: none"> • (1) Mechanic (OSC) • (1) Electrician (OSC) • (1) I&C Technician @ 90 minutes • Additional Mechanical and Electrical Maintenance Techs as needed.

Emergency Plan Change Assessment

The current JAF Emergency Plan provides for two (2) Mechanical Maintenance technicians, two (2) Electrical Maintenance Technicians and one (1) I&C to the OSC at 60 minutes. JAF is revising the Maintenance response consistent with the NRC’s Alternative Guidance, which provides for one (1) technician from each discipline to be staffed as Minimum Staff. Additional technicians are available and would be called as needed depending on the nature of the emergency repairs needed. JAF has a proven Work Management program that has demonstrated the ability to respond to emergent work activity issues during off hours, weekends, and holidays. In an emergency situation, the Minimum Staff OSC responders from each Maintenance discipline would be available to assess the required work activities, begin preparation activities, and request the needed support in a timely manner. The proposed staffing is consistent with the NRC’s Alternative Guidance and provides the necessary personnel to respond to the emergency condition.

NRC’s Alternative Guidance Alignment

JAF will staff one (1) Mechanical and one (1) Electrical Maintenance Technician at 60 minutes to perform the maintenance activities from the OSC to respond to the emergency condition. An I&C Technician will respond within 90 minutes consistent with the NRC’s Alternative Guidance. Depending on the need, additional Maintenance Technicians will be called in to support the OSC activities. There are no differences or deviations from the NRC’s Alternative Guidance.

3.2.10 EP Function: Supervision of Repair Team Activities

The ability to effectively supervise repair team personnel during emergency response is important. The augmentation (support) of these functions is as follows:

- A Lead OSC Supervisor (OSC Director) is staffed within 60 minutes of an Alert ECL, (or greater), and is staffed in the OSC.
- An Electrical Supervisor/Lead, a Mechanical Supervisor/Lead, an I&C Supervisor/Lead, and an RP Supervisor/Lead is staffed within 90 minutes of an SAE ECL, or greater, and is staffed in the OSC.

The OSC Director can effectively manage the Maintenance resources for the additional 30 minutes prior to the specific craft (Mechanical, Electrical, or I&C) responding, as demonstrated through drills and exercises.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at JAF.

EP Function: Supervision of Repair Team Activities – On-Shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified 	<ul style="list-style-type: none"> • None Specified

- b. Minimum Staff – The table below identifies the current and proposed Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Supervision of Repair Team Activities – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) OSC Director • (1) Maintenance Manager 	<ul style="list-style-type: none"> • (1) OSC Director • (1) Electrical Maintenance Supervisor/Lead @ 90 mins (OSC) • (1) Mechanical Maintenance Supervisor/Lead @ 90 mins (OSC) 	<ul style="list-style-type: none"> • (1) Lead OSC Supervisor • (1) Electrical Supervisor @ 90 mins • (1) Mechanical Supervisor @ 90 mins • (1) I&C Supervisor

	<ul style="list-style-type: none"> • (1) I&C Supervisor/Lead @ 90 mins (OSC) • (1) RP Supervisor/Lead @ 90 mins (OSC) 	<ul style="list-style-type: none"> • @ 90 mins • (1) Radiation Protection Supervisor @ 90 mins
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Emergency Plan Change Assessment

The current JAF Emergency Plan Table 2-1 identifies the Supervisory position of OSC Director under the Major Task of Repair and Corrective Actions. The OSC Director effectively manages the Maintenance resources upon activation of the facility. Also included in this Function is the TSC Maintenance Manager.

JAF is adding four (4) Minimum Staff positions to the OSC to be staffed at 90 minutes. These include an Electrical Maintenance Supervisor/Lead Technician, a Mechanical Maintenance Supervisor/Lead Technician, an I&C Supervisor/Lead Technician, and a RP Supervisor/Lead Technician. The addition of the four (4) supervisor positions enhances the ERO response by putting in place effective supervision repair team personnel early in the emergency response.

TSC Maintenance Manager - The Maintenance Manager is being re-categorized from Minimum Staff to Full-Augmentation Staff. Under the JAF Station Emergency Plan, the TSC Maintenance Manager responsibilities do not directly perform actions necessary to accomplish EP functions under NUREG-0654, but rather support other personnel at the TSC. The position, as currently defined in the Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed then the Emergency Plan may not be effectively implemented). The TSC Technical Manager performs support activities such as supervisory actions, validations, coordination, and assistance activities. Specific responsibilities include:

- *Direct the total onsite maintenance and equipment restoration effort.*
- *Request additional equipment in order to expedite recovery and restoration.*
- *Supervise the activities of the OSC Director and the TSC Damage Control Communicator.*
- *Ensure the Operations Manager is informed of OSC staffing utilization and activities.*
- *In coordination with the Operations Manager, determine the priority assigned to OSC activities.*
- *Ensure adequate staffing of the OSC.*

- *Assist in rescue operations.*
- *Identify required procedures that need to be written or implemented in support of the response efforts.*

Each of these tasks above are considered support activities and are not required to directly accomplish any of the NUREG-0654 identified functions. As such, the TSC Maintenance Manager position can be deleted from the Minimum Staff and maintained as a Full-Augmentation position. The TSC Maintenance Manager position and the listed responsibilities are being relocated to an EPIP.

NRC's Alternative Guidance Alignment

Under the proposed JAF Emergency Plan staffing, the OSC Director position is staffed within 60 minutes to oversee the activation of the OSC facility and the maintenance craft as they arrive. The Mechanical, Electrical, I&C, and RP Supervisors/Lead Technicians staff at 90 minutes to support coordination and supervision of repair team activities.

JAF proposes one difference to the NRC's Alternative Guidance. Specifically, JAF proposes to allow a Maintenance or RP Lead Technician to fill the supervisory role at 90 minutes. Under the Exelon Maintenance and RP programs, Lead Technicians are qualified, experienced craft technicians who successfully demonstrate the day-to-day leadership of the technician work force and act as lead on back shifts. Duties and responsibilities include training and development of other employees in performing preventive maintenance and routine equipment service activities. Basic qualifications for a Lead Technician include demonstrated reliability and responsibility and the ability to make quick and effective technical decisions, as well as demonstrated situational leadership, environmental and safety stewardship. The experience and qualification of JAF Lead Technicians satisfy the requirements and the needs of the OSC for the Supervision of Repair Team Activities EP Function.

Other than the difference discussed above, the proposed ERO staffing is consistent with the NRC's Alternative Guidance. The assigned major tasks are aligned with those stated in the NRC's Alternative Guidance.

3.2.11 EP Function: Field Monitoring Teams (FMTs)

The ability to locate, monitor, and track a radioactive plume is important to ensure appropriate protective measures are taken in response to a radiological event. The ability to staff these teams before they may be needed (i.e., before a radiological release) greatly enhances the ability to provide timely and accurate PARs.

The augmentation (support) for these teams is as follows:

- On-site Field Monitoring

An On-site Field Monitoring person is staffed consisting of personnel to monitor radiation. This on-site position is responsible for radiological monitoring of the site's PA. The size and configuration of the JAF PA does not support the need of an accompanying driver. The PA can be easily and efficiently traversed. This RP person is staffed within 60 minutes of an Alert ECL, or greater.

The On-site Field Monitor is qualified to assess radiation and contamination levels, but is not necessarily an ANSI-qualified RP Technician since the person is under the direct supervision of RP Manager in the TSC. Note: the Onsite On-site Field Monitor would not be staffed if the radiological conditions jeopardize the safety of the Onsite Field Monitor.

- Offsite Field Monitoring

An Offsite FMT is staffed, consisting of a Monitor and a driver, within 60 minutes of an Alert ECL, or greater. This Offsite FMT is responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples as necessary (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP Technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

Another Offsite FMT is staffed, consisting of a monitor and a driver, within 90 minutes of an Alert ECL, or greater. This Offsite FMT is also responsible for locating, monitoring, and tracking a radioactive plume, as well as obtaining environmental samples (e.g., air, water, vegetation, etc.). The Monitor is qualified to assess radiation and contamination levels, but need not be an ANSI-qualified RP technician as long as the FMT is under the direct supervision of senior staff in the TSC or EOF.

a. On-Shift Staff – There are no on-shift staff assigned to this EP Function at JAF.

EP Function: Field Monitoring Teams – On-Shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC's Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NUREG-0654, Revision 2 guidance for this EP Function.

EP Function: Field Monitoring Teams – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> RP Technicians 	<ul style="list-style-type: none"> Onsite Field Monitoring Individual (Qualified Individual) Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver) 	<ul style="list-style-type: none"> Onsite Field Monitoring Team (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team A (1 Qualified Individual and 1 Driver) Offsite Field Monitoring Team B @ 90 mins (1 Qualified Individual and 1 Driver)

Emergency Plan Change Assessment

Onsite Field Monitoring - The current JAF Emergency Plan designates eight (8) RP personnel as Minimum Staff for the Radiation Protection functions including On-site Surveys. The proposed changes to the JAF Emergency Plan designate one (1) RP person specifically for the on-site surveys. The number of RP personnel for this function is consistent with the NRC’s Alternative Guidance. Note there is a difference with respect to the designated on-site FMT Driver (discussed below). The reduction in RP personnel to this task is acceptable because one (1) Field Monitor dedicated to monitor and survey the site area is sufficient to provide current and timely data to the TSC/EOF in emergency conditions. At Exelon stations, the onsite Field Monitor is responsible only for monitoring the PA. The size of the station’s PA allows traverse in minutes and a second RP Field Monitor would not be required to perform this function. The Owner Controlled Area (OCA) has an infrastructure that supports vehicular traffic and will be monitored by the Offsite FMTs. This is the current Exelon process and has been demonstrated successfully through drills and exercises at Exelon stations.

Offsite Field Monitoring Teams - The Offsite FMTs at JAF currently consist of one (1) Field Team staffing at 60 minutes; consisting of a driver and one (1) RP personnel. JAF proposes to change the Offsite FMTs to be consistent with the NRC’s Alternative Guidance. Specifically, there would be two (2) FMTs; one (1) FMT would

staff at 60 minutes and one FMT would staff at 90 minutes. Since both FMTs are expected to respond to an event and in order to better coordinate radioactive plume tracking action(s), adding a second team and allowing for additional time provides some flexibility in staffing this ERO function without compromising the "reasonable assurance" finding in accordance with 10 CFR 50.47(a).

NRC's Alternative Guidance Alignment

The proposed ERO staffing for Onsite Field Monitoring is different than that proposed in the NRC's Alternative Guidance. Specifically, JAF On-site Field Monitoring will be staffed without a designated driver.

At Exelon stations, the On-site Field Monitor is responsible only for monitoring the area within the PA. The size of the station's PA allows traverse of foot in minutes and a designated driver would not be required to perform this function. The PA is sized to allow efficient traverse without the use of a vehicle. Additionally, the PA does not have an infrastructure which readily supports vehicle transportation.

For Exelon stations, the OCA supports vehicular traffic and is the responsibility of one of the Offsite FMTs. This has been demonstrated successfully through drills and exercises at Exelon stations. The 60-minute and 90-minute Offsite FMTs will staff consistent with the NRC's Alternative Guidance.

Note that since JAF and Nine Mile Point Nuclear Plant (NMP) are located at the same site, it will be possible for JAF to share Offsite Field Monitoring responsibilities with Nine Mile Point. The Emergency Plan commitment will be for 2 Offsite Field Monitoring Teams available to respond for either site. Under the Standardized Emergency Plan, both sites utilize the same procedures for the Offsite Monitoring Teams. The Offsite teams will be available, trained and qualified to respond to either JAF or NMP Emergencies in accordance with the EP Implementing Procedures.

3.2.12 EP Function: Media Information

The Media Information function includes the following tasks:

- Manage and coordinate media information related to the event.

Media relations is an important part of effective emergency response and is consistent with the National Incident Management System (NIMS). Revision 1 of NUREG-0654 left the exact staffing composition flexible, with input from applicable OROs, and from the Federal Emergency Management Agency (FEMA).

The augmentation (support) of this function is defined for JAF to be that which is absolutely needed to support this function (i.e., without those positions this function could not occur).

JAF is supported through the Exelon Communications Department at all times. The Communications Department responds to media inquiries initially for any ECL. The

Communications Department coordinates with Exelon Management and ERFs to respond to media inquiries. Press releases are issued as appropriate from the Communications Department.

Within 90 minutes of an Alert ECL or higher, the JAF Emergency Plan is being revised to describe the positions of Corporate Spokesperson, Public Information Director, and Joint Information Center (JIC) Director as those necessary to support the additional news media related tasks associated with the more significant classifications. These tasks include periodic press briefings, media engagement, and coordination with State and local Emergency Management Agencies (EMAs).

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon Communications Department is available to address news media inquiries 24 hours/day. This is consistent with the NRC’s Alternative Guidance.

EP Function: Media Information – On-Shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Media Information – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> • (1) Corporate Spokesperson • (1) JIC Director • (1) Media Monitor/Rumor Control Coordinator 	<ul style="list-style-type: none"> • (1) Corporate Spokesperson (established @ 90 min of an Alert or higher ECL) • (1) JIC Director (established @ 90 min of an Alert or higher ECL) • (1) Public Information Director (Does not need to be performed in the JIC, but needs to be established @ 90 	<ul style="list-style-type: none"> • JIC/JIS staff to address media inquiries at the Alert ECL • Staff to perform JIC/JIS related tasks at SAE ECL or greater

EP Function: Media Information – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
	min of an Alert or higher ECL)	

Emergency Plan Change Assessment

The JIC Staff is identified as Minimum Staff in the JAF Emergency Plan EP-AA-1014. Specifically, the JAF Emergency Plan identifies a (1) Corporate Spokesperson, (1) JIC Director, and (1) Media Monitor/Rumor Control Coordinator as required to activate the JIC Facility within 60 minutes of an Alert or higher event declaration to the JIC.

The proposed change to the JAF Emergency Plan identifies three (3) Minimum Staff positions to be staffed following an Alert ECL to address the Media Information EP Function. The positions consist of the Corporate Spokesperson, Public Information Director, and JIC Director. The positions are established within 90 minutes of an Alert or higher ECL.

The following position, currently identified as Minimum Staff within the JAF Emergency Plan, are being re-categorized as Full-Augmented Staff.

Media Monitor/Rumor Control Coordinator - Under the JAF Emergency Plan, the Media Monitor/Rumor Control Coordinator responsibilities do not directly perform actions necessary to accomplish EP functions the under NRC’s Alternative Guidance, but rather support other personnel at the JIC. The position, as currently defined in the JAF Emergency Plan, would not be considered as part of the absolute minimum ERO needed to implement the Emergency Plan (i.e., if any position or function is not staffed, then the Emergency Plan may not be effectively implemented). The Media Monitor/Rumor Control Coordinator performs support activities such as supervisory actions, evaluations, coordination, assistance and monitoring activities). Specific responsibilities include:

- *Supervise media monitoring and Inquiry Phone Team personnel.*
- *Review Media Monitoring team information for trends, misinformation and rumors.*
- *Review Phone Team information for trends, misinformation and rumors.*
- *Ensure adequate staff is available to perform media monitoring and phone team functions.*
- *Provide input for facility briefs and updates.*

The JAF Emergency Plan is revised to activate the (3) positions within 90 minutes of an Alert or higher classification.

The Exelon Corporate Communications Department is capable of responding to and addressing events prior to the arrival of the JIC Minimum Staff at 90 minutes of an Alert ECL or higher.

NRC's Alternative Guidance Alignment

The proposed ERO staffing activates the JIC at a lower ECL than the NRC's Alternative Guidance. Exelon proposes to activate the JIC within 90 minutes of an Alert ECL or higher. The 90-minute activation time provides for a larger population of candidates to fill the JIC minimum staff positions and is offset to some degree by the activation of the JIC at a lower ECL than stipulated in the NRC's Alternative Guidance. The Exelon Communications Department will provide for the JIC functions until the JIC is activated and turnover of responsibility occurs.

JAF will staff a Corporate Spokesperson at the JIC to maintain Command and Control of the JIC and conduct periodic briefings with the news media. The JIC Director is staffed at the JIC to coordinate with the State, local and Federal agencies to maintain factual consistency of information conveyed. JAF will also staff a Public Information Director to oversee the issuance of news releases and media monitoring/rumor control. The Public Information Director function may be performed remotely by taking advantage of advancements in communication technology.

3.2.13 EP Function: Information Technology

The Information Technology (IT) function includes the following tasks:

- If Emergency Plan functions rely on computer-based equipment, provide IT support.

The ever-increasing advances in technology have led to significant enhancements in many areas of emergency response, such as communications, monitoring, displays, digital procedures, etc. JAF has assessed the use of this technology as it is used to enhance the ability to protect the health and safety of the public with respect to EP.

- a. On-Shift Staff – There are no on-shift staff assigned to this EP Function; however, the Exelon IT department maintains a 24 hour/day HELP Desk to assist users with IT related issues.

EP Function: Information Technology – On-Shift Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
N/A	N/A	N/A

- b. Minimum Staff – The table below identifies the current and proposed JAF Emergency Plan ERO, as well as the NRC’s Alternative Guidance for this EP Function.

EP Function: Information Technology – Minimum Staff		
Current Emergency Plan	Proposed Emergency Plan Table	NRC’s Alternative Guidance
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher) <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>	<ul style="list-style-type: none"> (1) EOF/JIC/JIS IT Lead @ SAE ECL or greater <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p> <ul style="list-style-type: none"> (1) TSC IT Lead @ 90 mins <p>Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.</p>

Emergency Plan Change Assessment

The current JAF Emergency Plan does not identify IT positions as Minimum Staff. JAF maintains a Computer Specialist position at the EOF and TSC as a Full Augmentation position. Performance of digital equipment at EOF and TSC has shown to be acceptable during drills and exercises with this staffing. With the built-in redundancy for communication systems and digital EP assets, JAF has not identified a need to maintain an IT Lead as a Minimum Staff position at the TSC facility. The

EOF Computer Specialist is revised to Minimum Staff with a response time of 90 minutes from the Alert or higher ECL.

NRC's Alternative Guidance Alignment

JAF proposes to staff an IT Lead at the EOF as Minimum Staff; however, JAF proposes to staff the position within 90 minutes of an Alert or higher rather than 60 minutes of a Site Area Emergency. JAF does not propose to staff an IT Lead position as minimum staff at the TSC.

The JAF EOF and TSC contain multiple computers and programs in the facility which support EP functions. This includes Plant Parameter Display Systems and Dose Assessment programs, as well as Web EOC, fax, and copy machines. Performance during drills and exercises indicates consistent performance of the digital assets in the facilities. The communications and dose assessment equipment is periodically tested and issues, if any identified, are promptly addressed. The facilities and respective digital equipment are frequently used through administration of training for each team, as well as drills and Exercises. In addition, the IT Department maintains a Site IT Duty Person (SIDP) per procedure IT-AA-2001, Information Technology Response to Emergent Issues Process, for each station. During duty periods, the SIDP must be fit for duty, available, reachable by telephone, and/or cell phone at all times. The SIDP shall function as the single point of contact for site IT during the duty period.

- When contacted, must respond to all requests for emergent assistance, including conference calls.
- Manage the response to the emergent IT issues at the site. Primary role to coordinate recovery actions with Vendors and other support teams, as needed.
- Ensure that the appropriate priority and resources are assigned to address all emergent issues.
- Utilize SY-AA-102-201, Call-Outs for Unscheduled Work, for any required Call-Outs.

Additionally, Exelon maintains an IT HELP Desk 24 hours per day, 7 days a week. Many computer issues can be addressed remotely with an IT specialist at the HELP Desk. If additional help is needed at the TSC, the EOF IT Specialist will be available to support resolution of the issue.

In addition, each of these EP related digital assets in the TSC and EOF were evaluated as part of implementation of the Cyber Security Rule, 10 CFR 73.54(b). Under NEI 13-10, "Cyber Security Control Assessments," EP Critical Digital Assets at the TSC and EOF have been assessed and controls have been put in place to protect the assets against cyber-attack. In conjunction with these controls, alternate administrative, non-digital, or adequately independent means have been put in place for performing each EP function, should the digital component or program fail for any reason. For example, the Dose Assessment program has a redundant, non-network laptop computer at their respective facility to maintain the EP function should the

designated computer fail. ERO position procedures have written instructions for backup communication measures should the primary means fail.

Finally, performance of digital assets are monitored through either the Corrective Action Program or the EP Drill and Exercise critique process. Performance trends are monitored and corrective actions are implemented as necessary.

3.2.14 EP Function: First Aid and Rescue Operations

The First Aid and Rescue Operations EP Function no longer exists in the NRC’s Alternative Guidance.

- a. On-Shift Staff – The table below identifies the current and proposed JAF Emergency Plan on-shift ERO staff.

EP Function: First Aid and Rescue Operations – On-Shift Staff	
Current Emergency Plan	Proposed Emergency Plan
<ul style="list-style-type: none"> • (2) First Aid Team Personnel (collateral duty of Fire Brigade) 	<ul style="list-style-type: none"> • Not Applicable

Emergency Plan Change Assessment

The JAF Emergency Plan Table 2-1 identifies the EP Function of Rescue Operations and First Aid as collateral duties. JAF utilizes trained on shift personnel to satisfy this responsibility. First Aid and Rescue Operations are no longer identified as an EP Functions under the NRC’s Alternative Guidance Table B-1 guidance. First Aid is still maintained as part of the NRC’s Alternative Guidance under Section II.L, *"Planning Standard for Medical and Public Health Support."* As such, JAF will continue to maintain qualified First Aid and Rescue Operations personnel on shift; however, the personnel resources are no longer listed on the Emergency Plan Table consistent with the NUREG-0654, Revision 2 guidance.

NRC’s Alternative Guidance Alignment

The First Aid and Rescue Operations EP Function does not exist in the NRC’s Alternative Guidance Table B-1 guidance. Therefore, removing the Function from the Emergency Plan is consistent with the NRC’s Alternative Guidance.

- b. Minimum Staff – There are no ERO resources assigned to First Aid and Rescue Operations under the current JAF Emergency Plan as minimum staff. Additionally, the First Aid and Rescue Operations EP Function does not exist in the NRC’s Alternative Guidance. No revision is required to the JAF Emergency Plan.

3.3 Full-Augmentation Staff Assessment

The JAF Emergency Plan does not annotate Full Augmentation ERO positions within the Emergency Plan. The Full Augmentation positions are discussed in Emergency Plan Implementing Positions, consistent with the NRC's *Technical Basis for the Proposed Guidance in NUREG-0654/FEMA-REP-1, Section II.B, "Emergency Response Organizations"*. No changes are required to the JAF Emergency Plan with respect to Full Augmentation ERO positions.

3.4 Other Changes to the Emergency Plan

3.4.1 Command and Control Turnover

The Exelon Standardized Radiological Emergency Plan EP-AA-1000, Part II, Sections B.3 and B.4, are being revised to reflect the changes to the Command and Control turnover description. With the proposed changes in ERO, the description of the turnover process is revised to more clearly describe the transfer of non-delegable duties for PARs and State/local notifications directly from the MCR to the EOF. The Command and Control turnover of responsibilities continues to occur between the MCR, TSC, and EOF concurrently on a bridge-line without delay.

Existing requirements and capabilities under the Emergency Plan have not been deleted or reduced as part of this revision and as such, the station Emergency Plan continues to meet regulatory requirements. A review of existing regulatory Commitments was made to ensure existing commitments continue to be met.

3.4.2 Shared EOF/JIC Staffing with Nine Mile Point Power Plant.

The JAF-NMP EOF was a co-located licensee 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 facility is shared by both JAF and NMP.

The EOF (previously owned by Entergy) and JIC (previously owned by Constellation Energy (later Exelon)), were staffed with separate EROs operating from the same facility. Following the acquisition of JAF by Exelon in 2017, the respective EROs continued to be maintained separately.

Both NMP and JAF EROs share the same facility and are operated from the same room. Exelon proposes to revise the Emergency Plan for both stations to utilize a common EOF and JIC offsite ERO. The ERO responding to the site ERFs (TSC, OSC, MCR) are unaffected by this change. No physical changes to the facilities are required to support this LAR.

The JAF-NMP EOF is currently designed and built to display key plant data and radiological information for JAF, as well as NMP. There is sufficient space and

equipment for both EROs to respond simultaneously to a common emergency.

The revision would allow for a common offsite ERO to respond to the EOF and JIC for an event that affects either or both stations.

This concept is common within the nuclear industry with many stations sharing an EOF and EOF staff. For Exelon, this is similar to the Cantera EOF in Illinois, which serves the 6 Midwest Exelon stations, and the Coatesville EOF in Pennsylvania, which serves three (3) Mid-Atlantic stations.

For the JAF/NMP EOF, there is no change needed to the technology, space or equipment since the EOF is currently common to both stations. The only change is for the people responding to the emergency.

The responding ERO will be trained and qualified to perform their EP functions and tasks with respect to both stations, similar to how training is handled for Exelon's Cantera and Coatesville EOFs. The ERO positions at both stations will be common, utilizing common procedures, training, and response times.

Under the current ERO activation program, Exelon maintains an "all respond" expectation for its ERO. When the Shift Manager directs the activation of the ERO call out system, all ERO members are notified to facilitate adequate coverage of ERO positions at their designated emergency response facilities.

JAF requires members, who are fit for duty and able to respond, to act promptly in reporting to their assigned ERF, even when not on duty. In cases when both JAF and NMP are impacted by the common Emergency, excess personnel that respond would be retained and assigned support as necessary. Sufficient space is already available, since the facility is currently utilized for both EROs working together

The proposed revision has no impact on the current capabilities or timeliness to respond to an emergency. The EOF and JIC facilities are currently utilized by both stations. The responding ERO will be trained to respond to an emergency at either facility. There is precedent in the industry for this alignment. The change would not impact the effectiveness of the ERO to implement the JAF or NMP Emergency Plans.

3.5 **Impact of Proposed Changes on State Emergency Plan**

3.5.1 **Potential Impact of ERO Changes on Off-Site Emergency Response Organizational Interfaces**

Exelon provided a draft copy of the License Amendment Request to representatives of Oswego County Emergency Management Office and the New York State Office of Emergency Management to provide the proposed changes to JAF's Emergency Plan.

Oswego County provided information via electronic mail dated July 3, 2018, and NYSOEM provided information via electronic mail dated July 25, 2018, stating they have reviewed the draft License Amendment Request. Refer to Enclosure 5, "Information Related to Review of Proposed Changes by the States," for a copy of the referenced State communications.

4.0 **REGULATORY EVALUATION**

4.1 **Applicable Regulatory Requirements/Criteria**

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met.

Section 50.47, "Emergency plans," of Title 10 of the *Code of Federal Regulations* (10 CFR) sets forth the U.S. Nuclear Regulatory Commission's (NRC) Emergency Plan requirements for nuclear power plant facilities. The regulation in 10 CFR 50.47(a)(1)(i) states, in part:

...no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Planning Standard (2) of this section requires that:

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

Section IV.A of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," states:

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:

- 1. A description of the normal plant operating organization.*
- 2. A description of the onsite emergency response organization (ERO) with a detailed discussion of:*
 - a. Authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;*
 - b. Plant staff emergency assignments;*
 - c. Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures.*
- 3. A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.*
- 4. Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections, and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, and other appropriate governmental entities.*
- 5. Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.*
- 6. A description of the local offsite services to be provided in support of the licensee's emergency organization.*
- 7. By June 23, 2014, identification of, and a description of the assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.*

8. *Identification of the State and/or local officials responsible for planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.*
9. *By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.*

Revision 1 to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980, was intended to aid licensees, applicants for licenses, or State and local emergency response organizations in the development of their Radiological Emergency Response Plans. The NRC endorsed this document for use in this effort via Revision 2 to Regulatory Guide (RG) 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981. RG 1.101 allowed for licensees to submit alternatives to the guidance provided in NUREG-0654/FEMA-REP-1 for staff review and approval if necessary.

Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

Evaluation Criteria 5 of Section II.B of NUREG-0654/FEMA-REP-1, Revision 1, states, in part:

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

- 10 CFR 50.54(q) establishes requirements that all holders of a nuclear power reactor operating license must follow and maintain in effect emergency plans which meet the planning standards in 10 CFR 50.47(b) and the requirements in 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." 10 CFR 50.47 of 10 CFR, "Emergency plans," sets forth emergency plan requirements for nuclear power plant facilities.

- NUREG-0654/FEMA-REP-1, "*Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*," provides guidance and acceptance criteria to provide a basis for NRC licensees, State and local governments to develop radiological emergency plans and improve emergency preparedness.
- Regulatory Guide 1.219, "*Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors*," provides guidance related to emergency preparedness and specifically to making changes to emergency response plans.
- NRC Regulatory Issue Summary (RIS) 2005-02, Revision 1, "*Clarifying the Process for Making Emergency Plan Changes*," which provides guidance to (1) clarify the meaning of a "decrease in effectiveness," as stated in 10 CFR 50.54(q); (2) clarify the process for evaluating proposed changes to emergency plans; (3) provide a method for evaluating proposed changes to emergency plans; and (4) provide clarifying guidance on the appropriate content and format of applications submitted to the NRC for approval prior to implementation.
- NSIR/DPR-ISG-01, "*Interim Staff Guidance, Emergency Planning for Nuclear Power Plants*," provides guidance for addressing emergency planning requirements for nuclear power plants. This guidance is based on changes to Emergency preparedness regulations 10 CFR 50.47 and 10 CFR 50 Appendix E, that were published in the Federal Register (FR) on November 23, 2011 (i.e., reference 76FR 72560). The guidance should be used by licensees and applicants for implementing changes to onsite EP programs based on the revised emergency preparedness requirements and by NRC for reviewing the adequacy of the revised onsite emergency preparedness programs.

In addition, Exelon also reviewed the "Alternative Guidance for Licensee Emergency Response Organizations" finalized in the letter from the NRC to NEI, dated June 12, 2018 and draft RIS 2016-10, "*License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation*" (ML15338A291) in support of this submittal.

Exelon has evaluated the proposed changes against the applicable regulatory requirements and guidance criteria. The proposed Emergency Plan changes continue to assure that regulatory requirements and emergency planning standards associated with emergency response are met.

4.2 Precedent

There is no industry precedent for licensees implementing changes based on the NRC's Alternative Guidance; however, there have been other ERO staffing amendments approved by the NRC within the last few years. Specifically, on March 14, 2017, the NRC approved Southern Nuclear Operating Company's License Amendment Request to standardize the Emergency Plans for the Joseph M. Farley, Edwin I. Hatch and Vogtle

Nuclear Plant Stations which included changes to the ERO staffing (ML16141A109). Regarding Exelon stations, a revision to the Three Mile Island Emergency Plan related to ERO staffing was approved by the NRC on June 23, 2017 (ML17137A393).

4.3 No Significant Hazards Consideration

In accordance with 10 CFR 50.90, "*Application for amendment of license, construction permit, or early site permit*," Exelon Generation Company, LLC (Exelon) requests amendments to the following licenses:

- DPR-63– James A. FitzPatrick Nuclear Power Plant, respectively

The requested amendments to the licenses support changes to the James A. FitzPatrick Nuclear Power Plant (JAF) Emergency Plan based upon completion of a supporting evaluation of onsite Emergency Response Organization (ERO) staffing. The proposed changes will help align the Exelon nuclear stations minimum staff ERO with the "Alternative Guidance for Licensee Emergency Response Organizations" (Alternative Guidance) finalized in a letter from the NRC to NEI, dated June 12, 2018.

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 changes to the JAF Emergency Plan and determined that the 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 amendment involve a significant increase in the probability or consequences of an accident previously evaluated?*

Response: No.

The proposed changes to the JAF Emergency Plan do not increase the probability or consequences of an accident. The proposed changes do not impact the function of plant Structures, Systems, or Components (SSCs). The proposed changes do not affect accident initiators or accident precursors, nor do the changes alter design assumptions. The proposed changes do not alter or prevent the ability of the onsite ERO to perform their intended functions to mitigate the consequences of an accident or event. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the JAF Emergency Plan do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes have no impact on the design, function, or operation of any plant SSCs. The proposed changes do not affect plant equipment or accident analyses. The proposed changes do 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 changes do not introduce failure modes that could result in a new accident, and the proposed changes do not alter assumptions made in the safety analysis. The proposed changes remove ERO positions no longer credited or considered necessary in support of Emergency Plan implementation.

Therefore, the proposed changes to the JAF Emergency Plan do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

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 changes do 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 changes. Margins of safety are unaffected by the proposed changes to the ERO staffing. The proposed changes are associated with the JAF Emergency Plan staffing and do not impact operation of the plant or its response to transients or accidents. The proposed changes do not affect the Technical Specifications. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by these proposed changes. The proposed changes to the Emergency Plan will continue to provide the necessary onsite ERO response staff.

Therefore, the proposed changes to the JAF Emergency Plan do 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 be maintained 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 changes are applicable to emergency planning standards for James A. FitzPatrick Nuclear Power Plant (JAF) involving proposed ERO staffing changes. The proposed changes do not reduce the capability to meet the emergency planning standards established in 10 CFR 50.47 and 10 CFR 50, Appendix E. The proposed changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed changes.

Furthermore, in accordance with 10 CFR 51, additional information is provided below in support of a finding that the proposed changes do not have significant impact on the quality of the human environment.

Pursuant to 10 CFR 50.90, Exelon Generation Company, LLC (Exelon) is requesting amendments to the licenses for JAF.

Specifically, the proposed changes would revise certain Emergency Response Organization (ERO) positions to align with the minimum staff ERO guidance specified in the NRC's Alternative Guidance/FEMA-REP-1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."*

The proposed changes will also relocate the identified Full Augmentation ERO positions specified in Table 2-1, *"Minimum On-Site Staff Requirements,"* of JAF's Emergency Plan to an Emergency Preparedness Implementing Procedure (EPIP).

The proposed changes have been reviewed considering the requirements of 10 CFR 50.47, *"Emergency plans,"* paragraph (b), 10 CFR 50 Appendix E, *"Emergency Planning and Preparedness for Production and Utilization Facilities,"* and other applicable emergency preparedness NRC guidance documents. An evaluation of the proposed changes pursuant to 10 CFR 50.54, *"Conditions of licenses,"* paragraph (q), *"Emergency plans,"* determined that the proposed changes do result in a reduction in effectiveness of the Emergency Plans for the affected facilities and, therefore, require prior NRC approval.

Exelon has determined that the proposed changes do not individually or cumulatively have a significant effect on the human environment. The proposed changes update the licensing basis for JAF related to ERO staffing consistent with guidance in the NRC's Alternative Guidance. The associated changes to the ERO staffing will not affect the quality of the human environment.

As described above, Exelon has determined that operation of the subject facilities in accordance with the proposed changes does not involve a significant hazards consideration, in that it does not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety.

Exelon has determined that operation of JAF in accordance with the proposed changes does not authorize a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite. The proposed changes are unrelated to any aspects of plant construction or operation that would introduce any changes to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, or other effluents) or affect any plant radiological or non-radiological effluent release quantities. Furthermore, these changes do not diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation.

Exelon has determined that operation of JAF in accordance with the proposed changes does not result in a significant increase in individual or cumulative occupational radiation exposure. The proposed changes will not affect how a structure, system, or component will be used to meet the design bases of the nuclear plant. The proposed changes will have no effect on the construction or operation of the nuclear plant and, therefore, would not introduce any changes to the amount of occupational radiation exposure.

In conclusion, Exelon has determined that the operational effects of the proposed amendment do not involve: 1) a significant hazards consideration, 2) a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or 3) a significant increase in the individual or cumulative occupational radiation exposure. Consequently, the proposed changes will not have a significant effect on the quality of the human environment.

6.0 REFERENCES

- 6.1 NSIR/DPR-ISG-01, *"Interim Staff Guidance, Emergency Planning for Nuclear Power Plants,"* Revision 0, November 2011.
- 6.2 NEI 10-05, Revision 0, *"Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,"* dated June 2011.
- 6.3 NUREG-0654/FEMA-REP-1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,"* Revision 1, U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, Washington, DC, November 1980.

- 6.4 10 CFR 50.47, "*Emergency plans.*"
- 6.5 10 CFR 50, Appendix E, "*Emergency Planning and Preparedness for Production and Utilization Facilities.*"
- 6.6 Regulatory Issue Summary 2005-02, Revision 1, "*Clarifying the Process for Making Emergency Plan Changes,*" dated April 19, 2011.
- 6.7 Regulatory Guide 1.219, "*Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors,*" dated November 2011.
- 6.8 James A. FitzPatrick Nuclear Power Plant, Updated Final Safety Analysis Report (UFSAR).
- 6.9 Letter from NRC to NEI, "Alternative Guidance for Licensee Emergency Response Organizations", June 12, 2018.

License Amendment Request

ATTACHMENT 3A

Emergency Plan Marked-up Pages – James A. FitzPatrick Nuclear Power Plant

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1014

Affected Pages

Standardized Emergency Plan EP-AA-1000

Mark-ups

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station ~~and Corporate~~ Emergency Director's responsibilities and authority until relieved ~~by a qualified Station Emergency Director~~. The ~~Station-Corporate~~ Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures. ~~Final succession is achieved when the Corporate Emergency Director assumes overall Command and Control, and directs Exelon Nuclear's Emergency Response activities.~~

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). ~~Command and Control may be transferred directly to the Corporate Emergency Director, or transferred to the Station Emergency Director on an interim basis.~~ Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications. Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

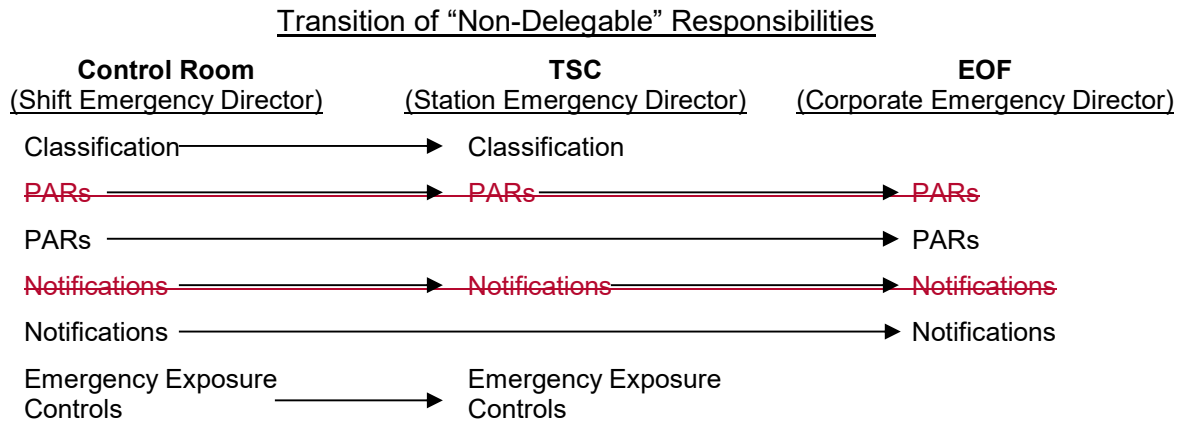
Non-delegable responsibilities include the following functions:

- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). Overall Command and Control is transferred to the ~~Station Emergency Director but may be transferred directly to the~~ Corporate Emergency Director.

~~When the~~ The Station Emergency Director assumes overall authority and responsibility for ~~Classification and Emergency Exposure Control~~ ~~performing all the non-delegable duties from the Shift Manager.~~ The Corporate Emergency Director (EOF) ~~will subsequently relieve the Station Emergency Director (TSC) of overall Command and Control and~~ ~~assumes~~ the non-delegable responsibilities for PAR determination and notifications to offsite authorities.



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within ~~the station specific Annex~~ this Emergency Plan, outlines ERO positions required to meet minimum staffing ~~and full augmentation~~ of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are ~~used as a planning basis to cover a wide range of possible events~~ described in Emergency Preparedness Implementing Procedures (EPIPs). For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)

- Firefighting
- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications
- ~~Initial Liaison responsibilities with Federal, state and local authorities~~

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. ~~The Technical Manager and/or another Other~~ qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director. ~~The responsibilities described for the Station Emergency Director applies to either the Shift Emergency Director or the Station Emergency Director depending on which individual is in Command and Control.~~

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew, ~~Operations Communicator and Damage Control Communicator in the Control Room.~~

2) Station Emergency Director TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities while in Command and Control:

- ~~Perform all non-delegable responsibilities as the Emergency Director in Command and Control until relieved by the EOF.~~
- **Activate the Facility**
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.

- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.

~~b) Station Emergency Director Responsibilities while not in Command and Control:~~

- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.
- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

~~3) TSC Director TSC~~

~~The TSC Director reports to the Station Emergency Director and is responsible for the content of information transmitted from the TSC to other agencies (or facilities) and for documenting information received at the TSC in coordination with the Station Emergency Director. Responsibilities include:~~

- ~~• Verify that qualified individuals are filling Communicator positions in the Control Room, TSC and OSC.~~

- ~~• Supervise the activities of the Logistics Coordinator and state/local Communicator.~~
- ~~• Ensure that communications are established with appropriate parties as directed by the Station Emergency Director.~~
- ~~• Ensure that all required notifications to offsite governmental agencies (state/local and NRC) are timely and accurate.~~
- ~~• Act as the Exelon Nuclear Liaison to any NRC Site Team Representatives.~~
- ~~• Ensure that the NRC Site Team Representatives are directed to their appropriate counterparts.~~
- ~~• Assist the Corporate Emergency Director in the acquisition of information for off-site agency updates.~~
- ~~• Record and relay inquiries to the Station Emergency Director. In addition, record responses to such inquiries prior to transmission.~~
- Assist the Station Emergency Director in maintaining proper records.

4) ENS Communicators CR/TSC/OSC

~~The Communicators are responsible for transmitting/receiving information to and from the TSC, OSC and Control Room. General rResponsibilities assigned to the ENS-all~~ Communicators include:

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.

a) ~~Specific responsibilities assigned to the~~ State/Local Communicator include:

- ~~• Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate agencies prior to the EOF accepting Command and Control.~~
- ~~• Monitor NARS communications until released by the TSC Director.~~
- b) ~~Specific responsibilities assigned to the Damage Control Communicator include:~~
 - ~~• Relay requests from the Control Room and TSC for the dispatching of OSC Teams.~~
 - ~~• Apprise the station emergency response facilities of the status of OSC Team activities.~~
- c) ~~Specific responsibilities assigned to the Operations Communicator include:~~
 - ~~• Apprise the TSC and EOF staff of the overall plant condition and significant changes to system and equipment status.~~
 - ~~• Inform the Control Room, TSC, and EOF of significant changes in event status (e.g. changes in classification, command and control, initiation of station assembly, accountability, evacuation, etc.).~~
- d) ~~Specific responsibilities assigned to the TSC Technical Communicator include:~~
 - ~~• Establish and maintain contact with the EOF Technical Advisor.~~
 - ~~• Provide EOF with updates on technical support activities and priorities.~~
- e) ~~Specific responsibilities assigned to the ENS Communicator include:~~
 - Notify the NRC of changes in event classification, ~~prior to the EOF accepting Command and Control~~, and assist the ~~EOF ENS Communicator~~ in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
 - Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.
 - Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

~~f) Specific responsibilities assigned to the HPN Communicator include:~~

- ~~• Maintain continuous communications with the NRC, if requested, via the NRC Health Physics Network (HPN) phone or commercial telephone line.~~
- ~~• Communicate current Health Physics information to NRC representatives, as requested.~~
- ~~• Coordinate the communications of radiological information to the NRC with the EOF HPN Communicator (onsite vs. environmental data).~~

5) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist ~~the Maintenance Manager~~ in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.

- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ~~Operations Communicator and the~~ ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.
- At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

~~6) Technical Manager~~ _____ ~~TSC~~

~~The Technical Manager reports to the Station Emergency Director and directs a staff in performing technical assessments of station emergencies and assists in recovery planning. Responsibilities include:~~

- ~~• Accumulate, tabulate and evaluate data on plant conditions.~~
- ~~• Evaluate plant parameters during an emergency to determine the overall plant condition.~~
- ~~• Coordinate core damage assessment activities.~~
- ~~• Identify data points and control parameters that the Operations staff should monitor.~~
- ~~• Ensure that current and adequate technical information is depicted on status boards.~~
- ~~• Identify and direct staff in the development of special procedures needed to effect long term safe shutdown or to mitigate a release.~~
- ~~• Supervise the total onsite technical staff effort.~~
- ~~• Act as the TSC liaison with state and appropriate NRC Site Team representatives.~~
- ~~• Assist the Radiation Protection Manager for onsite radiological/technical matters.~~
- ~~• Assist the Station Emergency Director in evaluating plant based PARs (prior to Corporate Emergency Director accepting command and control) and changes in event classification.~~
- ~~• Supervise the activities of the TSC Technical Communicator.~~

- ~~• Assume the duties and responsibilities of an Evaluator when transition to Severe Accident Management Guidelines (SAMG) is initiated and supervise the activities of the SAMG Evaluator Team~~

7) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

~~8) Logistics Coordinator TSC~~

~~The Logistics Coordinator reports to the TSC Director and provides administrative services in support of emergency/recovery operations. Responsibilities include:~~

- ~~• Coordinate shift relief and continual staffing of the station.~~
- ~~• Arrange for clerical staff at the TSC, OSC and Control Room.~~
- ~~• Assist the Security Coordinator in coordinating ERO and station activities in support of on-going security contingency, accountability or site/area evacuation efforts.~~
- ~~• Support the processing of special procedures and interim reports during an emergency.~~
- ~~• Ensure that event status and priority logs are being maintained in the TSC.~~
- ~~• Coordinate record keeping efforts at the station.~~
- ~~• Arrange for food, sleeping facilities and other necessary accommodations for onsite emergency workers.~~
- ~~• Arrange for specialized training of Emergency Response personnel as needed.~~

9) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director ~~and supervises the activities of the Radiation Controls Coordinator and Radiation Controls Engineer~~. The TSC RPM directs a staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- ~~Assist the Station Emergency Director in evaluating dose-based PARs (prior to Corporate Emergency Director accepting command and control) and changes in radiological event classification.~~
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.
- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

~~10) Radiation Controls Engineer (RCE) TSC~~

~~The Radiation Controls Engineer reports to the Radiation Protection Manager and coordinates the radiological and chemistry interface between the technical support engineering efforts. Responsibilities include:~~

- ~~• Monitor area and process radiation monitors to identify trends and potential hazards within the station.~~
- ~~• Evaluate plant environmental factors regarding radiological and other hazardous material conditions.~~
- ~~• Evaluate radiological and hazardous material surveys and chemistry sample results as appropriate.~~
- ~~• Direct the performance of sampling activities through coordination with the OSC Chemistry Lead in support of operations and core damage estimates as necessary.~~
- ~~• Coordinate radiological and chemistry information with the Core/Thermal Hydraulic Engineer in support of core damage assessment.~~

~~11) Radiation Controls Coordinator (RCC) TSC~~

~~The Radiation Controls Coordinator reports to the Radiation Protection Manager. The RCC coordinates site and in-plant Radiation Protection response activities through the OSC Radiation Protection Lead. Responsibilities include:~~

- ~~• Support the OSC Radiation Protection Lead in the dispatching of OSC Teams.~~
- ~~• Assist the Operations Manager in planning radiological controls for personnel dispatched from the Control Room.~~
- ~~• Ensure the proper use of protective clothing, respiratory protection, and access controls in the plant as appropriate to control personnel exposure.~~
- ~~• Monitor habitability concerns impacting access to plant and site areas.~~
- ~~• In coordination with the OSC Radiation Protection Lead, assemble and dispatch the Field Monitoring Teams as required.~~
- ~~• Supervise the activities of the HPN Communicator in the TSC.~~
- ~~• Request additional Radiation Protection personnel and/or equipment, as necessary in support of station activities and staff relief.~~

- ~~Prior to EOF Protective Measures Group staffing:~~
 - ~~Perform dose assessments and provide appropriate dose-based PARs.~~
 - ~~Coordinate Field Monitoring Team activities.~~
 - ~~Monitor meteorological conditions and remain cognizant of forecast data.~~
- ~~Following EOF Protective Measures Group staffing:~~
 - ~~Transfer control of the Field Monitoring Teams to the EOF Environmental Coordinator when appropriate.~~
 - ~~Transfer responsibility of dose assessment activities to the EOF Dose Assessment Coordinator.~~
 - ~~Assist the EOF Environmental Coordinator in the acquisition of information for the off-site agency updates.~~

~~12) Maintenance Manager _____ TSC~~

~~The Maintenance Manager reports to the Station Emergency Director and directs a staff in providing labor, tools, protective equipment and parts needed for emergency repair, damage control and recovery efforts to place the plant in a safe condition or return the plant to its pre-accident status. Responsibilities include:~~

- ~~Direct the total onsite maintenance and equipment restoration effort.~~
- ~~Request additional equipment in order to expedite recovery and restoration.~~
- ~~Supervise the activities of the OSC Director and the TSC Damage Control Communicator.~~
- ~~Ensure the Operations Manager is informed of OSC staffing utilization and activities.~~
- ~~In coordination with the Operations Manager, determine the priority assigned to OSC activities.~~
- ~~Ensure adequate staffing of the OSC.~~
- ~~Assist in rescue operations.~~
- ~~Identify required procedures that need to be written or implemented in support of the response efforts.~~

13) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

14) Operations Support Center Director OSC

The OSC Director reports to the ~~Maintenance Manager~~ Emergency Director and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - ~~Operations~~ I&C Maintenance
 - Mechanical Maintenance
 - Electrical/~~H&G~~ Maintenance
 - Radiation Protection

– ~~Chemistry~~

- Coordinate with ~~the OSC~~ Operations ~~Lead~~ in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

15) ~~Assistant Operations Support Center Director~~ _____ ~~OSC~~

~~The Assistant OSC Director reports to the OSC Director and supports the OSC Director in supervising the activities of personnel reporting to the OSC. The Assistant OSC Director may be filled by an OSC Lead, normally the Radiation Protection Lead. Responsibilities include:~~

- ~~Assist the OSC Director in supervising personnel assigned to the OSC.~~
- ~~Assist in formation of Field Monitoring Teams as directed by the TSC.~~
- ~~Assist in formation of sampling teams.~~
- ~~Ensure that records of in-plant survey information and radiochemistry results are maintained.~~
- ~~Ensure that accumulated exposure records for all essential onsite personnel are maintained.~~
- ~~Coordinate with the OSC Leads to organize in-plant teams to support station priorities.~~
- ~~Ensure that in-plant team dispatch briefings include expected activities and radiological hazards.~~
- ~~Ensure that periodic facility briefings are conducted on plant radiological conditions.~~

16) OSC Leads _____ OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection
- ~~Chemistry~~
- ~~Operations (on-shift Supervising Operator or designated Operations representative)~~

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.
- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

~~1) Nuclear Duty Officer (NDO)~~

~~The NDO is the Exelon Nuclear individual who acts as the initial Corporate contact for declared events. Responsibilities include:~~

~~a) Actions for all classified events:~~

- ~~• Contact the affected station to verify and obtain updated information concerning emergency response actions and event status.~~
- ~~• Notify Exelon Nuclear Executives of event.~~
- ~~• Provide information on the event to State Duty Officers, if requested.~~
- ~~• Notify the on-call Exelon Communications and Public Affairs Representative.~~
- ~~• Prior to EOF activation, review any news releases for accuracy.~~

~~b) Actions for Alert classifications and above:~~

- ~~• Complete all actions as listed above.~~
- ~~Notify American Nuclear Insurers (ANI) prior to being transferred to the EOF.~~

2) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

~~3) EOF Director _____ EOF~~

~~The EOF Director reports to the Corporate Emergency Director and has the authority, management ability and technical knowledge to assist the Corporate Emergency Director in the management of Exelon Nuclear's offsite ERO.~~

~~In the event that the Corporate Emergency Director becomes incapacitated, the EOF Director shall assume the responsibilities of the Corporate Emergency Director until a transfer of Command and Control can be effected either back to the station or to another qualified Corporate Emergency Director. Responsibilities include:~~

- ~~• Direct and coordinate the activation and response efforts of the EOF staff in support of the Corporate Emergency Director.~~
- ~~• Evaluate the need to augment the EOF staff based on events in progress.~~
- ~~• Assess the effectiveness of ongoing EOF working relationships.~~
- ~~• Monitor information flow within the EOF to ensure that facility activities remain coordinated.~~
- ~~• Prepare state/local notification forms with the assistance of the EOF Radiation Protection Manager and the Technical Support Manager.~~
- ~~• Coordinate services as necessary to support EOF operations.~~
- ~~• Coordinate with the Administrative Coordinator for continual shift staffing requirements.~~
- ~~• Assist in the conduct of Corporate Emergency Director duties.~~
- ~~• Act as the designated alternate for approval of the technical content of Exelon Nuclear Press Releases and information released to the News Media.~~
- ~~• Act as purchasing agent in support of the TSC for contract negotiation/administration.~~

~~4) Technical Support Manager _____ EOF~~

~~The Technical Support Manager reports to the EOF Director and directs the activities of the Technical Support Group. Responsibilities include:~~

- ~~• Assist the Corporate Emergency Director in monitoring changes in event classification.~~
- ~~• Assist the Corporate Emergency Director in determining plant-based PARs when necessary.~~

- ~~• Provide information to the EOF Director for completing the state/local notification form.~~
- ~~• Provide the Corporate Emergency Director information concerning the status of plant operations, and recommendations for mitigating the consequences of the accident.~~
- ~~• Coordinate the overall Exelon Nuclear engineering support from corporate staff and unaffected stations.~~
- ~~• Interface with Industry and contractor engineering support organizations.~~
- ~~• Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impacts or potentially impacts the offsite environment or PARs.~~
- ~~• Provide technical information on facility and system design.~~
- Assist in the development of post-accident recovery measures.

5) Operations Advisor _____ EOF

~~The Operations Advisor reports to the Technical Support Manager, directs the ENS Communicator, and is responsible for obtaining and analyzing plant status information and ensuring that it is disseminated. Specific responsibilities include:~~

- ~~• Monitor the Operations Status Line to keep apprised of:
 - ~~— Control Room activities including progress on Emergency Operating Procedures.~~
 - ~~— Significant changes in plant system/equipment status and critical parameters.~~
 - ~~— Possible changes in event classification.~~~~
- ~~• Identify and track critical parameters for the identification and trending of current plant status information.~~
- ~~• Assist the station in identifying Operations resources from corporate staff or unaffected stations for direct support of plant shift operations personnel.~~
- ~~• Assist the ENS Communicator in the completion of the NRC Event Notification Worksheet and in responding to NRC inquiries.~~
- Ensure that the EOF Radiation Protection Manager is informed of changes in plant status that impact or potentially impact the offsite environment or PARs.

~~6) ENS Communicator _____ EOF~~

~~The ENS Communicator reports to the Operations Advisor. Specific responsibilities include:~~

- ~~• Notify the NRC of changes in event classification. Generally, the TSC ENS Communicator focuses on real time plant operations and the EOF ENS Communicator focuses on notifications following changes in event classification and overall changes in event response or status.~~
- ~~• Establish and maintain continuous communications with the NRC, if requested, via the NRC-ENS phone or commercial telephone line.~~
- Coordinate NRC communications with the ENS Communicator in the TSC.

~~7) Technical Advisor _____ EOF~~

~~The Technical Advisor reports to the Technical Support Manager and is responsible for obtaining and analyzing technical support information, accident mitigating activities and priorities and ensuring that it is disseminated. Responsibilities include:~~

- ~~• Monitor the Technical Conference Line to remain aware of TSC technical support activities, strategies and priorities.~~
- ~~• Assist the Dose Assessment Coordinator in acquiring technical information pertaining to release pathway and core damage assessment.~~
- ~~• Supervise the activities of the Events Recorder.~~

~~8) Events Recorder _____ EOF~~

~~The Events Recorder reports to the Technical Advisor. Responsibilities include:~~

- ~~• Gather/record approved information on status boards as requested.~~
- Maintain an event chronology/status log.

~~9) Radiation Protection Manager _____ EOF~~

The Radiation Protection Manager ~~reports to the EOF Director and~~ directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the ~~EOF~~ Emergency Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the ~~EOF~~Emergency Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel ~~and the HPN Communicator~~.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

~~10) Environmental Coordinator _____ EOF~~

~~The Environmental Coordinator reports to the EOF Radiation Protection Manager and directs the Field Team Communicator, Field Monitoring Teams and the State Environs Communicator. Responsibilities include:~~

- ~~• Coordinate the transfer of control of the Field Monitoring Teams if initially under the direction of the TSC Radiological Controls Coordinator.~~
- ~~• Ensure communications are established with the TSC to obtain information on the accident conditions, meteorological conditions and estimates of radioactive material releases.~~
- ~~• Maintain cognizance of Field Monitoring Team exposure. When warranted, ask the Dose Assessment Coordinator to initiate an evaluation of the need for administering KI to Exelon nuclear workers.~~
- ~~• Determine needs of the Dose Assessment Coordinator, the Dose Assessor, the HPN Communicator and the State Environs Communicator(s) for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.~~
- ~~• Upon request, provide environmental data to Emergency Public Information personnel.~~
- ~~• Evaluate and coordinate additional equipment and personnel as necessary from unaffected stations to augment and/or relieve station Field Monitoring Teams.~~

~~11) State Environs Communicator _____ EOF~~

~~The State Environs Communicator is staffed as requested by the applicable state agencies. The State Environs Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• As needed, obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Coordinate activities and information flow between the EOF Protective Measures Group and the affected state(s) environmental authorities, including periodic updates on meteorological conditions, Field Monitoring Team activities and survey/sample results.~~
- ~~• Ensure that the Environmental Coordinator is aware of state environmental activities and sample results.~~

~~12) Field Team Communicator EOF~~

~~The Field Team Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Establish and maintain contact with the dispatched Field Monitoring Teams.~~
- ~~• Document the Environmental Coordinator's instructions and then relay this information to the Field Monitoring Teams.~~
- ~~• Document environmental data reported by the Field Monitoring Teams.~~
- ~~• Periodically obtain and document information on Field Monitoring Team radiological exposure.~~
- ~~• Promptly report new environmental or Field Monitoring Team exposure data to the Environmental Coordinator.~~
- Document questions and answers directed to and received from the Field Monitoring Teams. Ensure the Environmental Coordinator is cognizant of these information requests and relay replies to these requests.

~~13) Dose Assessment Coordinator EOF~~

~~The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager and directs the activities of the Dose Assessor and the HPN Communicator. Responsibilities include:~~

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers ~~when requested by the Environmental Coordinator.~~
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, ~~the HPN Communicator, and the State Environs Communicators.~~

~~14) Dose Assessor _____ EOF~~

~~The Dose Assessor reports to the Dose Assessment Coordinator. Responsibilities include:~~

- ~~• Perform dose projections using the Dose Assessment computer models as directed by the Dose Assessment Coordinator.~~
- Monitor meteorological and plant effluent conditions.
- ~~• Notify the Dose Assessment Coordinator of meteorological changes that may impact identification of downwind areas.~~
- ~~• Evaluate the need for administering KI to Exelon nuclear workers when requested by the Dose Assessment Coordinator.~~
- Coordinate Field Monitoring Team activities

~~15) HPN Communicator _____ EOF~~

~~The HPN Communicator reports to the Environmental Coordinator. Responsibilities include:~~

- ~~• Provide updates and respond to inquiries from the NRC on offsite environmental data, release status, dose projections and changes to PARs for the general public.~~
- ~~• Obtain release and dose assessment data from the Dose Assessment Coordinator and Field Monitoring Team data from the Environmental Coordinator.~~
- ~~• Maintain continuous communications with the NRC, if requested, via the NRC HPN phone or commercial telephone line.~~
- ~~• Communicate current Health Physics information to NRC representatives, as requested.~~

~~16) Logistics Manager _____ EOF~~

~~The Logistics Manager reports to the EOF Director and directs the activities of the administrative, security and liaison personnel. Responsibilities include:~~

- ~~• Ensure contact is made and communications are maintained with appropriate Non-Exelon Nuclear personnel whose assistance may be required to terminate the emergency conditions and to expedite the recovery.~~
- ~~• Advise the EOF Director concerning the status of activities relating to governmental interfaces.~~

- ~~Obtain support from Human Resources, the Comptroller's Office, the Legal Department, Accounting Department and others as required.~~
- ~~Coordinate with the Nuclear Duty Officer to maintain communications with ANI and INPO.~~
- ~~Ensure that access to the EOF is limited to Emergency Responders and authorize admittance to non-Exelon personnel.~~
- ~~Implement the Exelon Nuclear Fitness for Duty Program.~~
- ~~Ensure that NRC Site Team Representatives are directed to the Regulatory Liaison upon arrival at the EOF.~~
- ~~Ensure that updates and information are provided to the EOC Liaisons and to offsite officials present in the EOF.~~
- ~~Assist in obtaining and coordinating additional equipment/materials and /or technical expertise to support station requests, including Exelon Corporate staff, unaffected stations and vendor/contractors.~~
- ~~Coordinate maintenance of EOF equipment as necessary.~~
- ~~Ensure shift relief and continual staffing for the EOF.~~

17) Administrative Coordinator EOF

The ~~Administrative Coordinator~~ reports to the ~~Logistics Manager~~. Responsibilities include:

- ~~Direct the activities of the Computer Specialist.~~
- ~~Direct the clerical staff and ensure the clerical requirements for the other EOF and JIC staff are met.~~
- ~~Obtain clerical support for the EOF and JIC.~~
- ~~Coordinate shift relief and continual staffing for the EOF.~~
- ~~Obtain services as appropriate to support operation of the EOF.~~

18) Computer Specialist EOF

The Computer Specialist reports to the ~~Administrative Coordinator~~ ~~Emergency Director~~. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.

- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

~~19) Security Coordinator _____ EOF~~

~~The Security Coordinator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Provide and interpret information on security events.~~
- ~~• Assist with access control activities at the EOF and JIG.~~
- ~~• Perform the following in support of the TSC Security Coordinator:~~
 - ~~— Provide assistance in resolving security events.~~
 - ~~— Assist as a liaison for local, state and federal law enforcement agencies during security related events.~~
 - ~~— Serve as the primary contact to the security force for additional support, if necessary, during a security event.~~
- ~~• Obtain additional resources to support access control measures needed at the EOF and JIG.~~

20) State/Local Communicator _____ EOF

The State/Local Communicator reports to the ~~Logistics Manager~~Emergency Director. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.
- ~~• Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~21) EOC Communicator _____ EOF~~

~~The EOC Communicator reports to the Logistics Manager. Responsibilities include:~~

- ~~• Coordinate and dispatch EOC Liaisons as needed or requested.~~
- ~~• Establish and maintain periodic contact with each location where Exelon Nuclear EOC Liaisons have been dispatched.~~
- ~~• Ensure EOC Liaisons are provided event information and notifications.~~

- ~~Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.~~

~~22) County EOC Liaison(s) _____ County EOCs~~

~~The County EOC Liaison(s) will be dispatched to County Emergency Operations Centers (EOCs) based on established agreements with the counties. The County EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report County EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions.~~
- ~~Provide simplified explanations to EOC personnel of technical details distributed through approved channels.~~
- ~~Assist with confirmation/verification of information distributed through approved channels.~~
- ~~Provide media at the EOC with approved Exelon Nuclear press releases.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~23) State EOC Liaison(s) _____ State EOCs~~

~~At the request of state officials and/or at the discretion of the Corporate Emergency Director, Exelon Nuclear will provide Liaison personnel to state Emergency Operation Centers (EOCs). The state EOC Liaisons use the EOC Communicator as their contact at the EOF. Responsibilities include:~~

- ~~Monitor and report state EOC activities to the EOF.~~
- ~~Conduct briefings and answer questions as requested.~~
- ~~Assist Emergency Public Information personnel in rumor control and media monitoring.~~

~~24) Regulatory Liaison _____ EOF~~

~~The Regulatory Liaison reports to the Logistics Manager. Responsibilities include:~~

- ~~Coordinate interfaces between Exelon Nuclear personnel and governmental agencies within the EOF.~~
- ~~Obtain necessary equipment and supplies to support activities of governmental agencies located in the EOF.~~
- ~~Act as the Exelon Nuclear Liaison to the NRC Site Team representatives.~~

c. Public Information Emergency Response Organization1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

~~2) Technical Spokesperson JIC~~

~~The Technical Spokesperson reports to the Corporate Spokesperson. Responsibilities include:~~

- ~~• Assist in development of technical and plant status information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

~~3) Radiation Protection Spokesperson JIC~~

~~The Radiation Protection Spokesperson reports to the Corporate Spokesperson. Responsibilities include.~~

- ~~• Assist in development of environmental and health physics information for use in news releases and media briefings.~~
- ~~• Assist the Events Recorder in the preparation of a chronological event description log.~~
- ~~• Prepare briefing papers which contain additional detail and background not found in the news releases.~~
- ~~• Provide answers as soon as possible to media questions.~~
- ~~• Provide a follow-up explanation that corrects misinformation as soon as practicable.~~

4) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.
- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- ~~• Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.~~
- ~~• Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~

- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

5) ~~JIC Coordinator~~ _____ ~~JIC~~

~~The JIC Coordinator reports to the JIC Director and supervises the facilities support staff. Responsibilities include:~~

- ~~• Ensure the JIC is activated and operational. This includes the availability of communications and visual aids.~~
- ~~• Ensure that access to the JIC areas occupied by Exelon personnel is controlled.~~
- ~~• Establish a minimum frequency for addressing news media/public representatives and ensure that some form of communication occurs within that time frame (i.e., an update at least hourly.)~~
- ~~• Ensure that approved News Releases and Chronological Event Description Logs are made available in the JIC.~~
- ~~• Document unanswered questions and serious public misinformation issues. Follow up on these questions and issues to ensure that they are being adequately addressed.~~
- Coordinate the interface between Exelon Nuclear and the news media/public, including, as necessary, briefings, news conferences, interviews and responses to information requests.

7) ~~Administrative Coordinator~~ _____ ~~JIC~~

~~The Administrative Coordinator reports to the JIC Director. Responsibilities include:~~

- ~~• Coordinate with the EOF Administrative Coordinator to ensure the clerical requirements for the other JIC staff are met.~~
- ~~• Coordinate shift relief and continual staffing for the JIC.~~
- ~~• Obtain services as appropriate to support operation of the JIC.~~

~~8) Access Controller _____ JIC~~

~~The Access Controller reports to the JIC Director and is responsible for controlling facility access and obtaining authorization prior to admitting non-Exelon Nuclear officials into the JIC.~~

9) Public Information Director (PID) _____ JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. ~~The Public Information Director may perform this function at remote locations. The Public Information Director supervises the activities of the, News Writer, Events Recorder and media monitoring and rumor control personnel.~~ Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- ~~Coordinate with the Media Monitoring Staff to r~~Review and access media coverage of the emergency event.

~~10) News Writer _____ JIC~~

~~The News Writer reports to the Public Information Director. Responsibilities include:~~

- ~~Compose draft news releases with assistance from the Technical Spokesperson and the Radiation Protection Spokesperson.~~
- ~~Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.~~

~~11) Events Recorder _____ JIC~~

~~The Events Recorder reports to the Public Information Director. Responsibilities include:~~

- ~~• Develop a chronological event description log.~~

~~12) Media Monitoring Staff _____ JIC~~

~~The Media Monitor reports to the Public Information Director. Responsibilities include:~~

- ~~• Ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.~~
- ~~• Inform the Public Information Director of all media reports and of actions taken to correct any misinformation or rumors.~~
- ~~• Direct the activities of the Rumor Control Staff with respect to the function of monitoring rumors from sources other than the media.~~

~~13) Rumor Control Staff _____ JIC~~

~~The Rumor Control Staff reports to the Public Information Director and acts in support of the Media Monitors. Responsibilities include:~~

- ~~• Ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.~~
- ~~• Until the JIC is fully activated, document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.~~
- ~~• Inform the Media Monitors when rumors representing serious misinformation are encountered.~~

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained ~~within the station specific Annexin Appendix 5~~, lists the key positions of the ERO ~~and the supporting positions assigned to interface with federal, state, and county authorities~~. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. **These positions are further described in the EPIPs.**

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC **Corporate Spokespersons**. The ENC function may be located at either the EOF or the JIC.

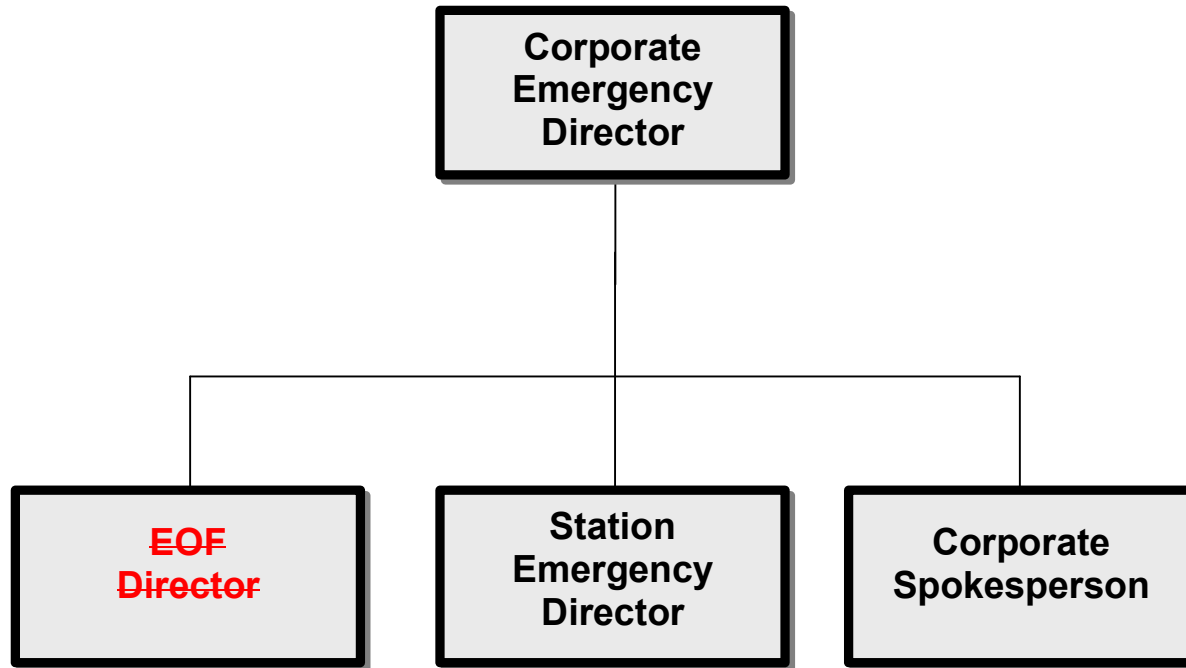
The ~~Corporate ERO EOF~~ is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the ~~Station Shift~~ Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. ~~The EOF may also function in a supporting role to the station when the Station Emergency Director maintains Command and Control.~~ The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

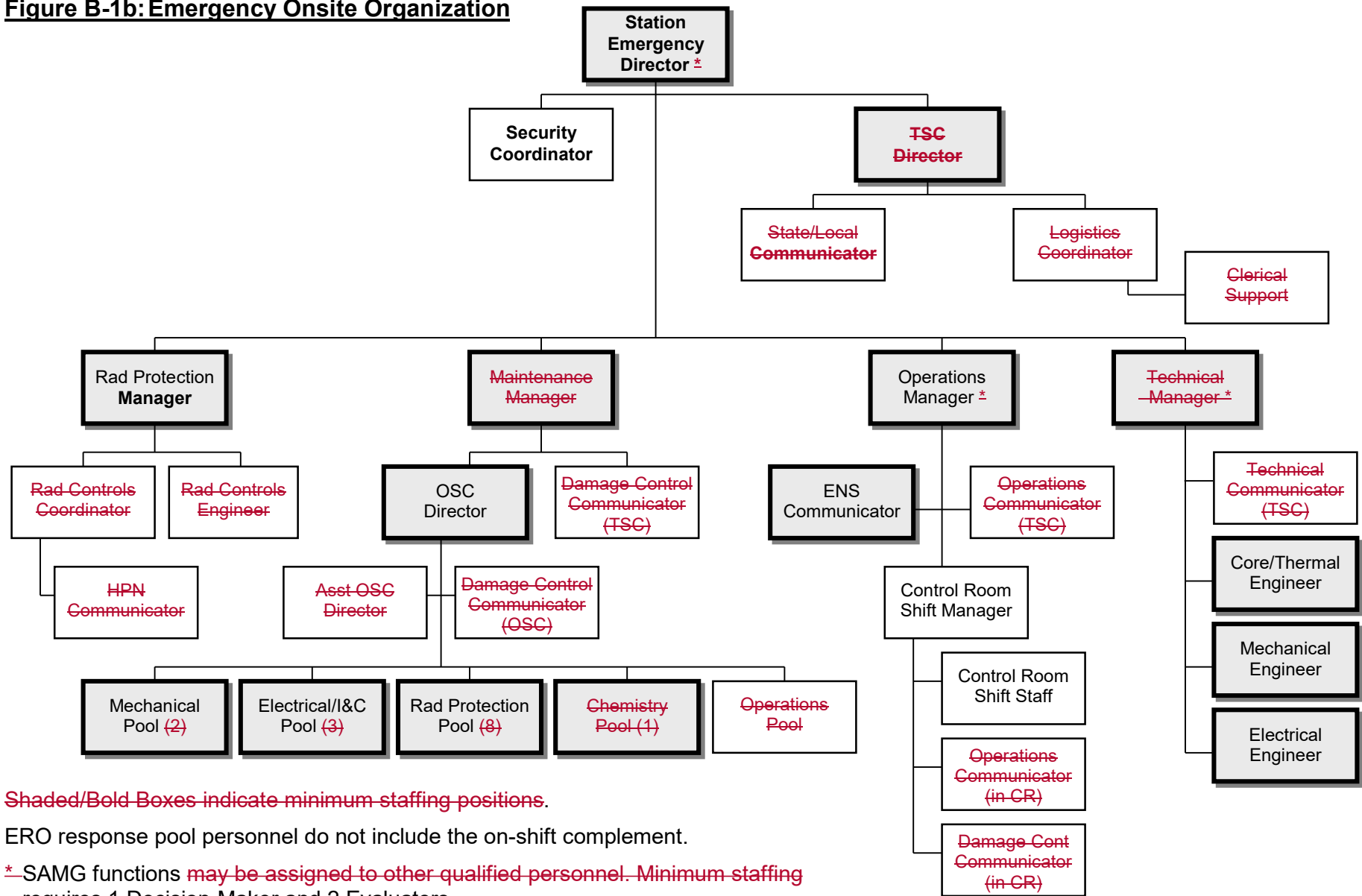
- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:
 - Assistance to the affected utility in locating sources of emergency personnel, equipment and operational analysis.
 - INPO, Electric Power Research Institute (EPRI) and Nuclear Energy Institute (NEI) maintain a coordination agreement on emergency information with their member utilities.
 - INPO provides the "Nuclear Network", or its replacement, electronic communications system to its members, participants, NEI, and EPRI to coordinate the flow of media and technical information about the emergency.

Figure B-1a: Exelon Overall ERO Command Structure



Shaded/Bold Boxes indicate minimum staffing positions.

Figure B-1b: Emergency Onsite Organization

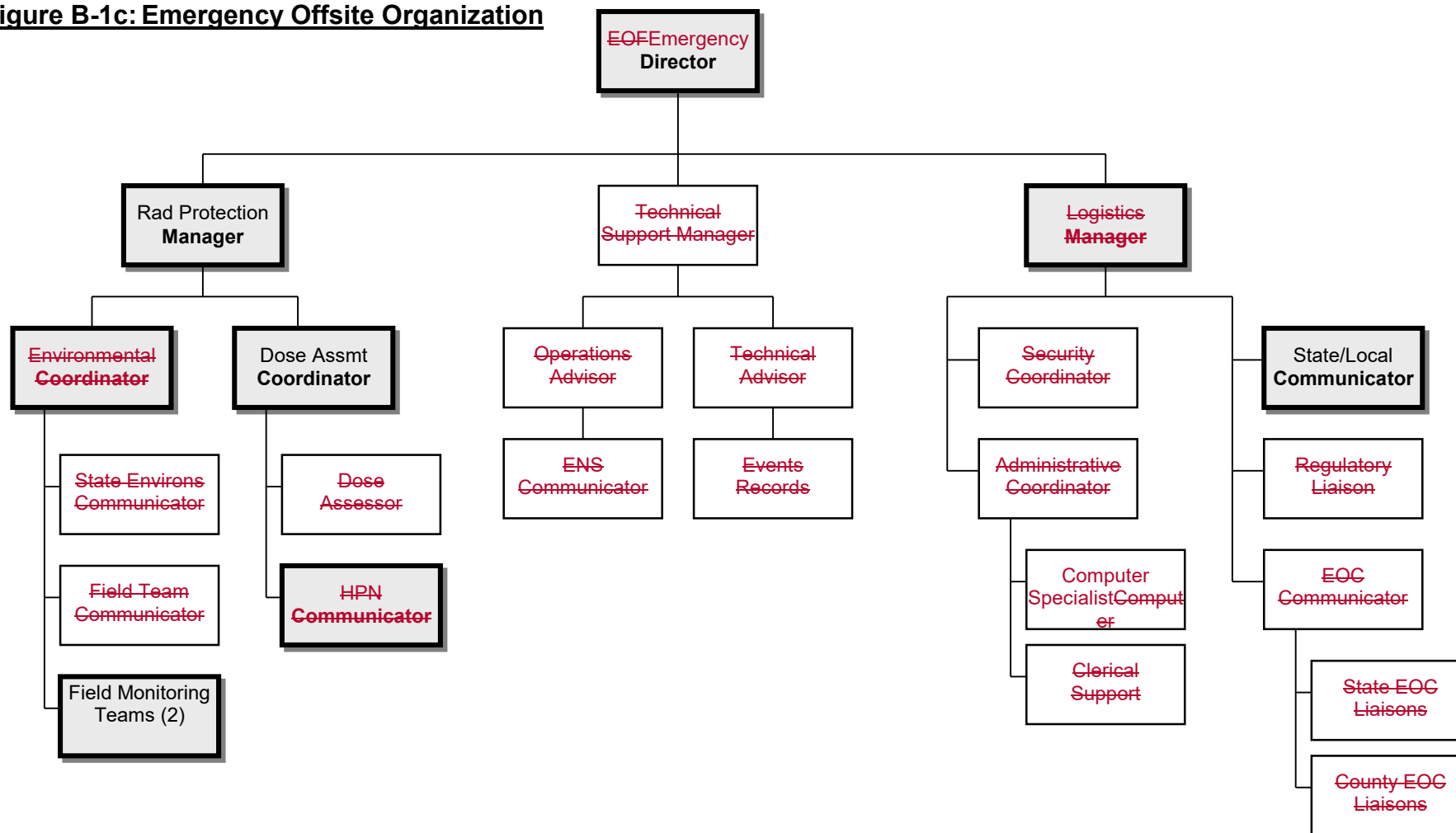


Shaded/Bold Boxes indicate minimum staffing positions.

ERO response pool personnel do not include the on-shift complement.

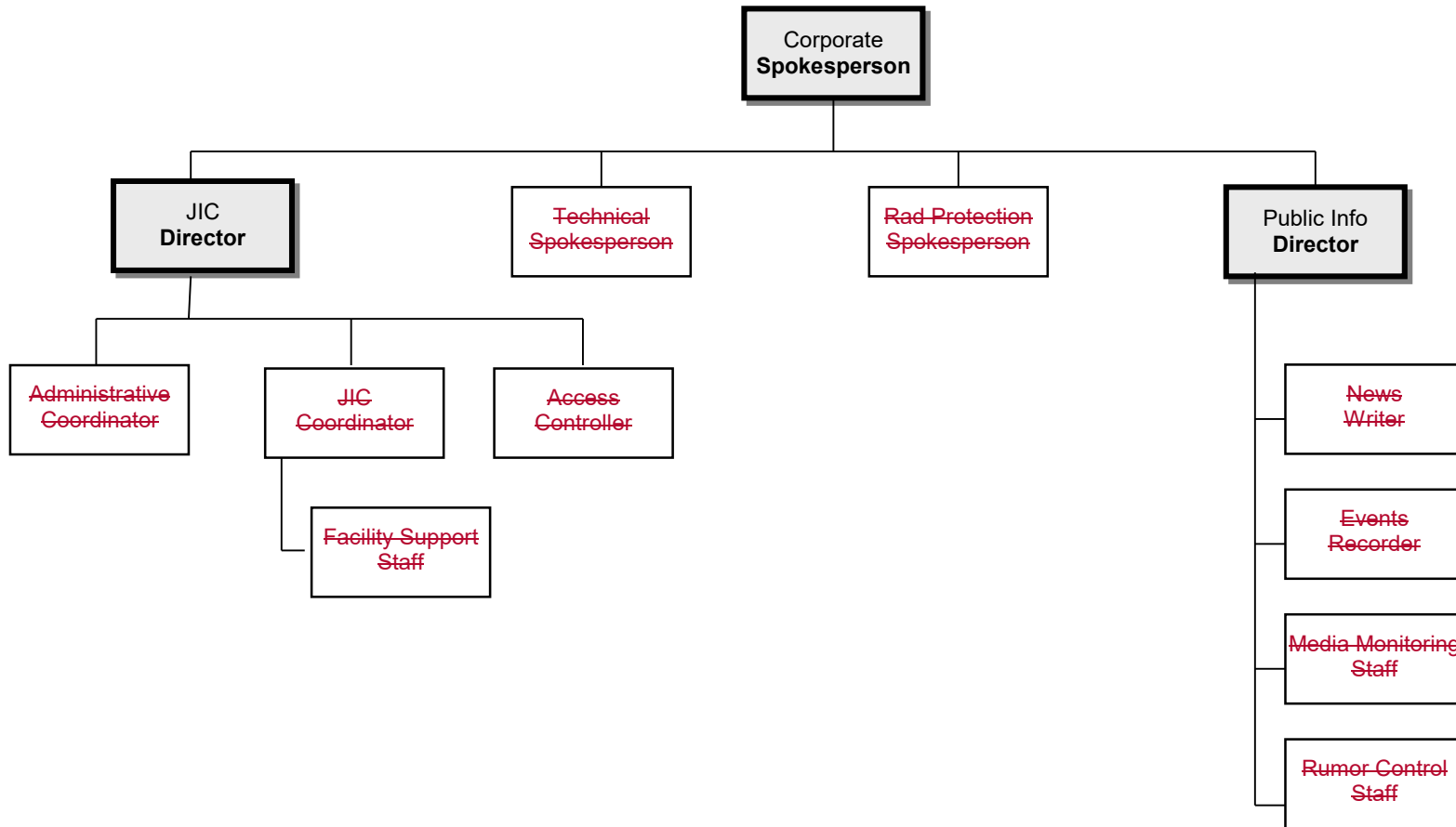
* SAMG functions may be assigned to other qualified personnel. Minimum staffing requires 1 Decision-Maker and 2 Evaluators.

Figure B-1c: Emergency Offsite Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

Figure B-1d: Emergency Public Information Organization



Shaded/Bolded Boxes indicate minimum staffing positions.

- 9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

- e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.
- f. NRC Communications (ENS ~~and HPN~~)

Communications with the NRC Operations Center will be performed via the NRC ENS ~~and HPN~~ circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS ~~and/or HPN line~~.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

~~Health Physics Network (HPN): There also exists a separate dedicated telephone between the NRC, the TSC, and EOF for conveying health physics information to the NRC as requested or as an open line.~~

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

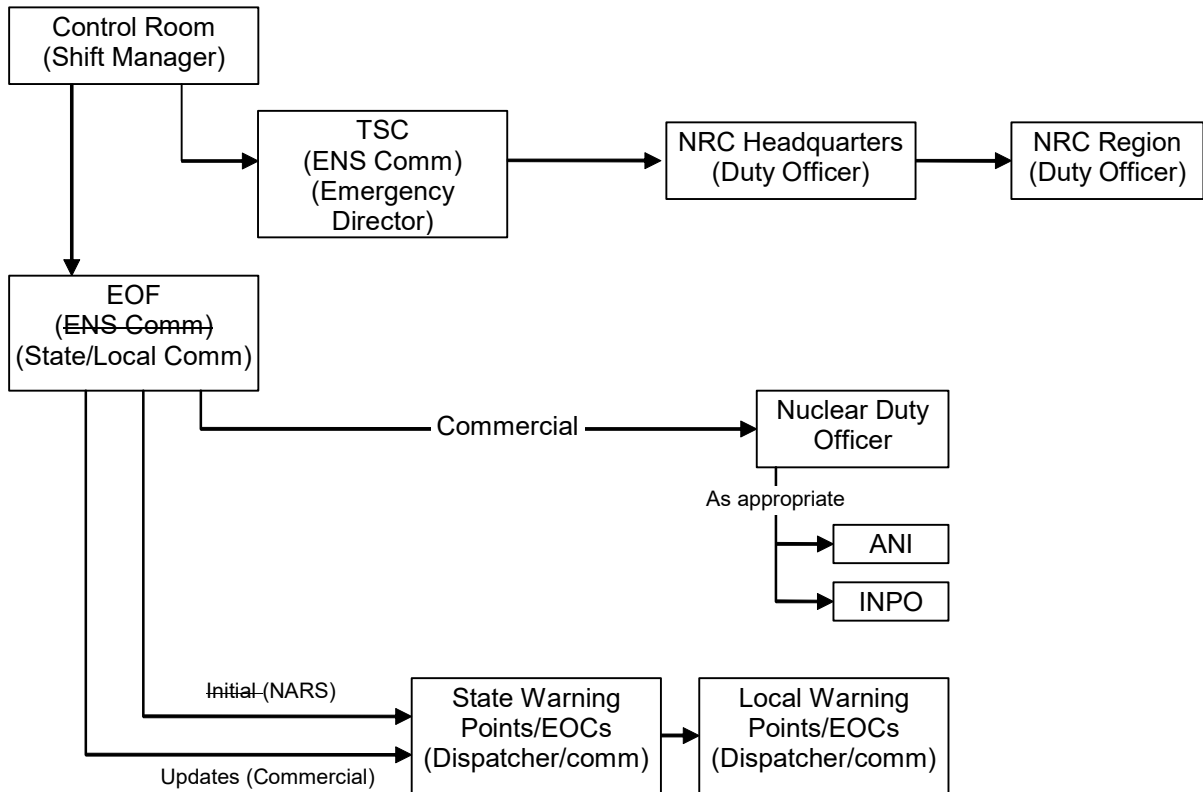
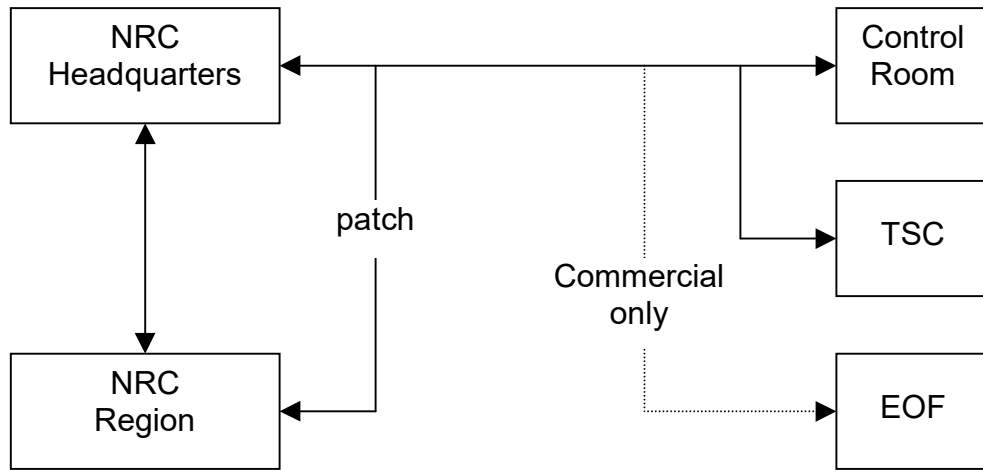


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS ~~and HPN~~ circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through ~~Media Monitoring Staff~~ telephones that the media can call for information about an emergency.
- b. The news media is not permitted into the EOF during an emergency.

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~~JIC Staff. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - ~~Chemistry Personnel,~~
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

~~Although the minimum staffing criteria applies to the JIC, the activation time is not applicable. Public Information personnel must first coordinate the decision to activate the JIC with the appropriate offsite authorities.~~

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
- Radiation Protection
- ~~Chemistry~~
- Maintenance (mechanical, electrical and I&C)

- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift] (OSC)	(3) Additional Radiation Protection Personnel [In addition to personnel on-shift and those responding within 60 min.] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1014

Mark-ups

EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR JAMES A. FITZPATRICK STATION

The industrial activities within 10 miles of the site are confined principally to the city of Oswego and the community of Scriba, with little industry in the outlying communities of Minetto, Volney, and Mexico. One facility in the immediate area is the NOVELIS manufacturing plant which is located approximately three miles southwest of the site on Route 1. An electrical generating facility has been constructed adjacent to the NOVELIS manufacturing plant.

The public institutions, aside from the schools and churches, within the 10-mile Plume Exposure EPZ of the site are a hospital and a college in the city of Oswego. There are no public institutions within five miles of the site.

A detailed listing of special facilities in Oswego County within the 10-mile Plume Exposure EPZ is presented in the "Oswego County Radiological Emergency Response Plan."

1.5 **Population**

The total 2016 population of the plume exposure pathway EPZ is 41,049. (This data is from 2010 census data as updated in 2016 and is discussed in EP-AA-1014, Addendum 2, Evacuation Time Estimates.) The population density of the immediate area surrounding the site is quite low, with the exception of the city of Oswego whose population in 2015 was 17,787 and the Village of Mexico, located approximately nine miles from the site, which contains about 1,574 residents. According to the 2011 Residence Census performed for the Radiological Environmental Monitoring Program, the nearest permanent resident is on Lake Road, about 0.7 miles east-southeast of the plant. The population distribution within 10 miles of the site is presented in Figure 21.4.

1.6 **Figures, Forms and Attachments**

Figure 1.1 JAFNPP Fenced Area Map

Figure 1.2 Plume Emergency Planning Zone (10 Mile Radius)

Figure 1.3 Ingestion Emergency Planning Zone (50 Mile Radius)

Figure 1.4 Population Distribution by Emergency Response Planning Area

Figure 1.5 Combined NMPNS/JAFNPP Site Map

Section 2: Organizational Control of Emergencies

JAFNPP has established an emergency response organization to respond to hostile actions and radiological emergencies. That organization includes on-shift personnel, additional plant personnel who may be offsite, other JAFNPP personnel, local services support, and private organizations support. The interfaces among the various emergency organizations are shown in Figure 2-1. The following sections describe in detail the JAFNPP plant and corporate organization and identify the interaction of the total emergency response organization. **Note that the Onsite and Minimum Staff Emergency Response Organization is defined in EP-AA-1000.**

2.1 Normal Operating Organization

The James A FitzPatrick Nuclear Power Plant (JAFNPP) organization for normal operation is described in OP-AA-20, Conduct of Operations Process Description, which is consistent with the JAFNPP - specific On Shift Staffing Analysis ~~conducted October 2013~~. The typical minimum shift crew consists of:

- 1 Shift Manager (SRO)
 - 1 Control Room Supervisor (SRO)
 - 1 Field Support Supervisor (FSS)/Shift Technical Advisor (STA)*
 - 3 Senior Nuclear Operator (RO)
 - 6 Nuclear Plant Operators (NPO)-covers Fire Brigade member, AOP-43 and E-Plan Communicator requirements
 - ~~4~~—1 Radiation Protection Technician (Health Physics)
 - 1 ~~Shift Dose Assessor~~ ~~Chemistry Technician~~
- Security Personnel in accordance with Security Plan

* (STA responsibilities may lie with a different member of the Control Room staff. The STA function is not required in modes 4 and 5.)

2.2 ~~Onsite Emergency Organization~~

~~If initiating conditions exist that result in the declaration of an emergency, the Shift Manager will assume the role of Emergency Director and will be responsible for emergency direction and coordination. The normal operating organization will also assume their pre-assigned emergency response roles. This onsite emergency organization is shown in EP-AA-1000, Figure 5.1. This is a short-term response organization that will be augmented within approximately one hour after call-out by additional plant personnel. The augmented (minimum staffing) emergency response positions for the onsite plant personnel are depicted in Table 2-1.~~

~~A roster of personnel qualified and assigned to these positions is maintained by Emergency Planning.~~

~~2.3 **Augmented (Minimum Staffing) Emergency Organization**~~

~~If an Alert, Site Area Emergency, or General Emergency is declared or if the minimum shift crew requires assistance during a Notice of Unusual Event (NUE) the onsite emergency organization will be augmented by additional plant personnel. The augmented (minimum staffing) emergency organization is shown in Table 2-1 and the ERO positions listed below. The augmented (minimum staffing) emergency organization shall staff and operate the TSC, OSC, EOF, and JIC (Joint Information Center) as needed within approximately one hour of the request for activation. Augmentation for an Unusual Event may consist of the entire or part of the defined organization for each facility requested, at the discretion of the Emergency Director.~~

~~Table 2-1 is included as a cross reference to NUREG-0654 B-1 staffing chart. This table describes the on-shift and augmented (minimum staffing) emergency assignments for JAFNPP staff.~~

~~As the onsite organization is augmented, the shift crew may concentrate on their shift duties or continue to assist in the emergency response roles and activate emergency facilities in accordance with the emergency class. At least two individuals are designated for each emergency position.~~

~~The head each major functional area reports to the Corporate Emergency Director or Station Emergency Director.~~

~~In addition to those ERO positions listed in Table 2-1, the following ERO positions make up the augmented (minimum staff) positions.~~

- ~~• OSC Director~~
- ~~• Operations Manager~~
- ~~• CED~~
- ~~• EOC Communicator~~
- ~~• State Liaison~~
- ~~• County Liaison~~
- ~~• SED~~
- ~~• TSC Director~~
- ~~• Security Coordinator~~
- ~~• Maintenance Manager~~
- ~~• Technical Manager~~
- ~~• Company Spokesperson~~
- ~~• JIC Manager~~
- ~~• MM/Rumor Control Coordinator~~

~~2.42.2 **Offsite Support Organizations**~~

~~The onsite emergency organization will be augmented, if necessary, by corporate, local and private response personnel. The response of these groups is in accordance with their letters of agreement with JAFNPP (presented in Appendix C).~~

~~2.4.1 Headquarters Support~~

~~The Corporation will provide personnel from headquarters or other facilities to assist in the emergency response/recovery operations at JAFNPP. This support will be in accordance with Section 3.7 of this plan and Emergency Plan Implementing Procedures.~~

~~The Recovery Organization is specified by EP-CE-115, Termination and Recovery. The Recovery Organization is under the overall direction of the Site Recovery Director. The Site Recovery Director shall be responsible for interfacing with government authorities when the focus shifts from response to recovery.~~

~~The company's Corporate Office will be notified by the plant of an emergency situation.~~

2.42.2-1 Local Services Support

The nature of an emergency may require the augmentation of onsite response groups by local services, personnel and equipment. Support from the following local organizations may be obtained:

- Oswego Hospital
- Oswego County Sheriff
- University Hospital in Syracuse
- The City of Oswego (Fire Department)
- Oswego County E-911 Center (Fire Department)
- Specific methods for notification of these organizations are contained in Emergency Plan Implementing Procedures.

2.42.3-2 Private Organization Support

JAFNPP may obtain emergency response support from various private organizations. These organizations and the support they may provide are:

- A. Nine Mile Point Nuclear Station - Will provide use of laboratories, equipment and personnel for radiological monitoring, decontamination, backup communications, and personnel to assist in recovery operations.
- B. R.E. Ginna Nuclear Power Plant - Will provide use of laboratories, equipment and personnel for radiological monitoring, backup communications, and personnel to assist in recovery operations.
- C. General Electric- Will provide technical support and personnel.

2.5-3 Coordination with Participating Government Agencies

2.53.1 State and Local Agencies

This section identifies the principal state and local government agencies having action responsibilities for radiological emergencies in the vicinity of the JAFNPP. The radiological emergency response plans of these agencies describe their

D. Nuclear Regulatory Commission (NRC)

The U.S. Nuclear Regulatory Commission is responsible for verifying that appropriate emergency plans have been implemented and for conducting investigative activities associated with a radiological emergency. An NRC Response Team will offer assistance during an emergency. Estimated time of arrival is within 3 hours. The Agency Procedures for the NRC Incident Response Plan (NUREG-0845) describes the functions of the NRC during an incident and the kinds of actions that comprise the NRC response.

~~2.6—4~~ **Administrative and Logistics Support**

During the response to a radiological emergency, it may be necessary to supplement the Company's resources and/or provide response personnel with necessary support. Arrangements for this support which includes: the means and sources for obtaining food, lodging, sanitation, office supplies, temporary offices, communications equipment, and vehicles in support of an extended or augmented emergency response. This will be made by the Company Corporate Staff.

~~2.75~~ **Figures, Forms, and Attachments**

FIGURE 2-1 Emergency Organization interface

FIGURE 2-2 Emergency Staffing – On Shift Response Organization

~~TABLE 2-1 Plant Personnel Emergency Activity Assignments~~

~~NOTES FOR TABLE 2-1~~

**TABLE 2-1
PLANT PERSONNEL – EMERGENCY ACTIVITY ASSIGNMENTS
(IN ACCORDANCE WITH JAMES A. FITZPATRICK NUCLEAR POWER PLANT ON-SHIFT ANALYSIS-OCTOBER 2013)**

Major Functional Area	Major Tasks	JAFNPP Position, Title, or Expertise	Number On-Shift	Notes (in-Below table)	Number on shift-required by B-1-chart	Number available-within 60 minutes-after call
Operations- (Assessment of- Operational- Aspects)	Direct and perform actions- for mitigate plant emergency- conditions	Shift Manager (SRO)	1	(A)	1	-
		Control Room Supervisor (SRO)	1	(A)	1	-
		Senior Nuclear Operator (SNO)	3		2	-
		Nuclear Plant Operator (NPO)	4		2	-
Emergency-Director	Direct onsite emergency-response	Shift Manager Operations, General Manager Plant Operations, Director Nuclear Safety Assurance, Director Engineering, Emergency Planning Manager or Designated Alternate	1*	(B)	-	-
Notification/ Communication	Notify JAFNPP, State, local, and Federal personnel and maintain communication.— Staff Notifications and Security Contacts.	Nuclear Plant Operator	1	(C)	1	2
Radiological-Accident-Assessment	Direct dose projection, radiological surveys, interface with State.	Radiological Protection (RP) Manager or other RP Supervisor	0	(D)	0	2
Radiation- Protections- Functions /- Radiological- Surveys (Support- of Operational- Assessment (In- Plant) Protective- Actions)	Onsite (out-of-plant) survey.— In-plant surveys.— Out-of-plant and offsite- surveys.— Chemistry/radiochemistry- offsite surveys.— Radiation Protection- Access Control HP coverage for repair, mitigative actions, search and rescue, first aid and firefighting.— Personnel monitoring, Dosimetry	Offsite Monitoring Team				
		(RP) Technician	4	(E)	4	8
		RP Technician (RP / Chem)	4		4	4

TABLE 2-1 (CONT)

**PLANT PERSONNEL – EMERGENCY ACTIVITY ASSIGNMENTS
(IN ACCORDANCE WITH JAMES A. FITZPATRICK NUCLEAR POWER PLANT ON-SHIFT ANALYSIS-OCTOBER 2013)**

Major Functional Area	Major Tasks	JAFNPP Position, Title, or Expertise	Number On Shift	Notes (in-Below table)	Number on shift required by B-1 chart	Number available within 60 minutes after call
Plant Systems Engineering	Technical Support	Shift Technical Advisor	1	(A)	1	-
		Core Thermal/Hydraulic	0		0	1
		Electrical Engineer	0		0	1
		Mechanical Engineer	0		0	1
Repair and Mitigative actions	Access and correct in-plant Conditions	Mechanical Maintenance	0	(F)	0	2
		Electrical Maintenance	1*	(F)	1*	2
		Instrument and Control Tech.	0	(F)	0	1
		Rad Waste Operator	1*	(G)	1*	-
Fire Fighting / Rescue Operations And First Aid	-Combat fires -Search & Recue -First Aid	Plant Fire Brigade	1	(H)	N/A	Local Support via Oswego County Fire Coordinator & Oswego Hospital
		Search and Rescue Brigade		(I)		
		First Aid Team		(J)		
Site Access Control, Security and Personnel Accountability	Maintain site access, security, and perform accountability.	Security Force		Per Security Plan		

Table 2-1 Staffing Chart Notes

* Indicates that position may be provided by shift personnel assigned other functions.

The B-1 Staffing Chart appears in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants", pages 37 and 38.

NOTES FOR TABLE 2-1

A. May include a SM, CRS, or FSS as the STA. The STA is not required in modes 4 and 5.

B. The Shift Manager performs the duty of the Emergency Director until relieved by a qualified individual.

C. On-shift communicator is normally a qualified NPO but may be other qualified individuals who have equivalent or higher plant operational knowledge. This position is normally augmented by TSC and EOF designated communications positions when those facilities assume communications responsibilities.

- ~~D. On-shift Radiation Protection and Chemistry technicians are directed by Shift Manager/Emergency Director until the arrival of RP and/or Chemistry Department supervision.~~
- ~~E. RP technicians are trained for offsite, onsite and in-plant surveys. RP technicians are brought to the plant to supplement on-shift personnel using a call-out procedure.~~
- ~~F. Emergency Mechanical, Electrical and Instrument & Control Maintenance require call in of applicable departmental personnel to conduct tasks. Normal operations shift personnel can conduct limited emergency mechanical, electrical and Instrument & Control work.~~
- ~~G. The radwaste operator is an on-shift auxiliary operator (Nuclear Plant Operator).~~
- ~~H. The JAFNPP Fire Brigade complement is a Senior Nuclear Operator and 4 Nuclear Plant Operators.~~
- ~~I. The JAFNPP Search and Rescue team is composed of the JAFNPP Fire Brigade.~~
- ~~J. The JAFNPP First Aid Team is composed of a Senior Nuclear Operator, two Nuclear Operators, and one RP Technician.~~

the collection and analysis of airborne samples for gross and iodine radioactivity, and the collection of liquid samples.

Equipment is also provided for post-accident reactor water sampling. For details of the specific type and quantities of equipment contained in each kit see inventory procedure SAP-2, EMERGENCY EQUIPMENT INVENTORY.

4.2.2.2 Out-of-plant Surveys

Out-of-plant survey teams may be dispatched if releases of radiation have occurred, or to verify that releases above technical specifications are not occurring. The Environmental Coordinator (EOF), or designee, will notify, brief, and dispatch the survey teams. The dispatching and direction of survey teams to designated locations (see Figures 4.5 and 4.8) and the performance of out-of-plant surveys will be performed in accordance with EP-AA-112-500, Emergency Environmental Monitoring.

Out-of-plant survey teams will (if possible), be composed of a team leader and team member. The teams will report to and be dispatched from the Technical Support Center or the Emergency Operations Facility. Emergency survey kits are maintained for use by the out-of-plant survey teams. **JAF will share the Out-of-Plant Survey Responsibilities with the Nine Mile Point Nuclear Station. The Out-of-Plant teams are available and trained to respond to an event at either station.**

The out-of-plant survey teams have the capability and equipment to collect environmental and emergency TLD/DLR (Dosimeter of Legal Record), filter media from the environmental air samplers, water, milk, soil, vegetation, and snow samples. The field teams can also take direct radiation surveys and collect and analyze in the field, airborne samples for gross and iodine radioactivity. For details of the specific type and amount of equipment contained in the out-of-plant survey kits see SAP-2, EMERGENCY EQUIPMENT INVENTORY.

The field assessment of airborne samples will be reported back to the EOF where the Dose Assessment ~~Coordinator~~ or RPM will use the data for dose assessment. Other environmental media will be transported to an Environmental Lab for analysis.

One type of radiological data which the onsite and offsite survey teams will be collecting to aid in dose assessment is airborne radioiodine concentrations. Monitoring is accomplished by the use of portable air sampling pumps equipped with a particulate filter and silver zeolite cartridge. The particulate filter and silver zeolite cartridge can be analyzed in a low background area using a count rate meter and mini-scaler for determination of total radioiodine. The silver zeolite cartridges have an iodine retention in excess of 99% while retaining only traces of

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Emergency Plan Training for Licensed Operators and Shift Technical Advisors	Any personnel not listed above who are assigned to a position that requires a valid USNRC Operator License, or who are designated as STAs.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of Emergency Plan training for Licensed Operators and STAs shall be to ensure the capability for immediate response, assessment, and the implementation of measures to prevent or mitigate the consequences of emergencies.
Severe Accident Management Training	Designated Staff	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of SAM training shall be to ensure the capabilities for coordination, and assumption of responsibilities of actions associated with Severe Accident Operations Guidelines.
Emergency Plan Training for Non-Licensed Operators	Non-Licensed Operators	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of Emergency Plan training for Non-Licensed Operators shall be to ensure the capability for immediate response by conducting measures to prevent or mitigate accident conditions.
Emergency Communications	Designated Primary and Alternates: a. ENS Communicator b. Offsite State/Local Communicators (EOF) c. EOF Communicators	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for emergency communicators shall be to review appropriate Implementing Procedures, communications equipment and messages, including Incident Command System (ICS) concepts, position titles and terminology.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Radiological Assessment	Designated Primary and Alternates: a. Radiological Protection Manager (EOF) b. Environmental Coordinator (EOF) c. Dose Assessor Assessment Coordinator (EOF)	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for personnel performing radiation monitoring and analysis duties will include downwind and/or in plant radiation monitoring and sampling Implementing procedures, including Incident Command System (ICS) concepts, position titles and terminology.
Radiological Controls and Surveys during Emergencies	Designated Primary and Alternates: a) In-Plant Radiological Controls and Downwind Survey Teams b) RP Technicians c) Chemistry Technicians d) Radiation Protection / Chemistry Coordinator e) Offsite Monitoring Team	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for personnel performing radiation monitoring and analysis duties will include downwind and/or in plant radiation monitoring and sampling Implementing Procedures, including Incident Command System (ICS) concepts, position titles and terminology.
Emergency Access Control, Evacuation and Accountability	Security personnel assigned responsibilities for Emergency Plan function, and Local Law Enforcement Officials.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Training and retraining requirements are outlined in the Exelon Fleet Nuclear Security Training and Qualification Plan, including Incident Command System (ICS) concepts, position titles and terminology.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Search and Rescue/First Aid Response	Plant Fire Brigade members.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Designated members will receive training as appropriate in basic patient care and treatment. Members will also be instructed on the availability of onsite medical treatment supplies and equipment; communication systems; access controls radiological hazards; and roles, interfaces and responsibilities with local fire/medical support personnel, including Incident Command System (ICS) concepts, position titles and terminology. and to provide effective search and rescue capabilities for missing, trapped or injured personnel in an emergency.
Damage Control / Repair Teams personnel	Designated Primary and Alternates: a. TSC Maintenance Manager b. OSC Director c. Mechanics d. Electricians e. Instrument and Control Technicians f. Electrical/I & C Lead g. Mechanical Lead	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Position-related training provides the qualification for job functions of the listed personnel and, as such, special training in these functions, other than appropriate emergency plan and procedures training, is not required.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Full Augmentation ERO as defined in EP Implementing Procedures	Designated ERO	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for Full Augmentation staff shall be to review ERO Position Checklists, and appropriate Implementing Procedures.
Onsite Fire Fighting Personnel	a. Fire Brigade members and Supervisors as specified in the Fire Protection Procedures Manual	Once per calendar year not to exceed 18 months between training sessions.	Develop well-trained fire brigade whose actions minimize injuries, property loss and damage and lost generation time.
Medical Support Personnel and Offsite Fire Fighting Personnel	Offsite Fire Departments, Ambulance and Hospital Personnel.	Annually	Designated members will receive training as appropriate in basic patient care and treatment. Members will also be instructed on the availability of onsite medical treatment supplies and equipment; communication systems; access controls radiological hazards; and roles, interfaces and responsibilities with local fire/medical support personnel, including Incident Command System (ICS) concepts, position titles and terminology.
COMMUNICATION	Function of Communications link to State and Local Governments	Monthly	Plant NY State Oswego Co.

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
A.3	Written agreements referring to concept of operations	Section 2.42 Section 4.1.2 Section 4.5.3 Section 4.5.4 Section 6.5.2
A.4	Provisions for 24-hour operations/continuity of resources	EP-AA-1000, Section B Section 2.3 Section 2.42 Section 2.64
B.1	Onsite Emergency Organization	EP-AA-1000, Section 2.2B Appendix 5 Figure 2-2 Section 2.3
B.2	Designation of Emergency Coordinator	EP-AA-1000, Section B Section 2.3.1
B.3	Emergency Coordinator - line of succession	EP-AA-1000, Section B Section 2.3.1 Section 3.7.1
B.4	Functional responsibilities of Emergency Coordinator	EP-AA-1000, Section B EP-AA-1000, Appendix 5 Section 2.3.1
B.5	Titles and major tasks of emergency positions	EP-AA-1000, Section B EP-AA-1000, Appendix 5 Section 2.1 Table 2-1 Section 2.2
B.6	Interfaces between and among emergency organizations - block diagram	Figure 2-1
B.7	Augmentation of plant staff	EP-AA-1000, Section B Appendix 5
B.7.a	Logistics support	Section 2.64 Section 3.7
B.7.b	Technical support	Section 3.7 Figure 3-3
B.7.c	Management interface with governmental authorities	Section 2.42 Section 2.53
B.7.d	Release of information to news media	EP-AA-1000, Section B Section 2.3.12 Section 3.7

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
B.8	Contractor and private organization assistance / staff augmentation	Section 2.42.2 Section 2.42.3 Appendix C Appendix F
B.9	Emergency services provided by local agencies	Section 2.42.2 Section 4.5 Appendix C
C.1.a	Incorporation of Federal response capability into Plan - request for	Section 2.3.1 Section 2.53.2 Section 4.1.2
C.1.b	Federal resources expected	Section 2.53.2 Appendix C
C.1.c	Resources to support Federal response	Appendix N
C.2.a	Offsite EOF representative	N/A*
C.2.b	Licensee representative at offsite locations	EP-AA-1000, Section B Section 2.3.13
C.3	Identification of radiological laboratories	Section 2.42.3 Section 4.2.2.2 Section 5.3.1 Section 5.3.2
C.4	Identification of organizations to provide assistance	Section 2.42.3 Appendix C Appendix F
D.1	Establishment of emergency classification/emergency action	Section 3.1
D.2	Initiating conditions for postulated accidents in FSAR	Section 3.1 Section 3.2
D.3	State/local emergency	N/A*
D.4	Offsite procedures providing emergency actions	N/A*

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
H.3	Establishment of EOC for response functions	N/A*
H.4	Provisions for timely activation and staffing of facilities	EP-AA-1000, Section B Section 2.2 Section 2.3 Section 4.1.1 Section 5.1
H.5.a	Identification of geophysical phenomena monitors	Section 5.3.3.3 Section 5.3.3.7
H.5.b	Identification of radiological monitors	Section 4.5.1 Section 4.5.2 Section 5.3.3.1 Section 5.3.3.8
H.5.c	Identification of process monitors	Section 5.3.3.9
H.5.d	Identification of fire detectors	Section 5.3.3.2
H.6.a	Acquisition of data from geophysical phenomena monitors	Section 5.3.3.3 Section 5.3.3.7
H.6.b	Acquisition of data from radiological monitors	Section 4.5.1 Section 5.3.3.1 Section 5.3.3.4 Section 5.3.3.5 Section 5.3.3.6
H.6.c	Acquisition of data from laboratory facilities	Section 5.3.1 Section 5.3.2
H.7	Provisions for offsite monitoring equipment	Section 4.2.2.2 Section 5.3.3.8
H.8	Provisions for meteorological instrumentation and procedures	Section 5.3.3.7
H.9	Provisions for onsite Operations Support Center	Section 5.1.3
H.10	Provisions to inspect, inventory, and operationally check equipment	Section 6.6
H.11	Identification of emergency equipment	Appendix I

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
J.10.a	Inclusion of maps showing evacuation routes, monitoring locations, and relocation centers	Figure 4.2 Figure 4.9 Figure 5.2 Figure 5.3 Figure 5.4 Figure 5.6 Appendix H
J.10.b	Inclusion of maps showing population distribution around the facility	Figure 1.4 Figure 4.3 Appendix K
J.10.c	Means for notifying all segments of the population	Section 5.2.8 Appendix H
J.10.d-l	State/local plans to implement various protective measures	N/A*
J.10.m	Basis for choice of recommended protective actions	Section 4.4.2
J.11	State protective measures for ingestion pathway	N/A*
J.12	State/local plans for registration and monitoring of evacuees	N/A*
K.1.a-g	Establishment of onsite exposure guidelines consistent	Section 4.4.1 Section 4.5.1 Figure 4.1
K.2	Onsite radiation protection program to be implemented during emergencies	EP-AA-1000, Section B Section 2.3.1 Section 2.3.9 Section 4.4.1.4 Section 4.5.1
K.3.a-b	Provisions for 24-hour capability to determine emergency personnel doses	Section 4.5.1
K.4	State/local decision chain for authorizing exposures in excess of EPA PAGs	N/A*
K.5.a	Specification of action levels for decontamination	Section 4.5.2
K.5.b	Means for radiological decontamination of emergency personnel	Section 4.5.2 Section 5.6

License Amendment Request

ATTACHMENT 3B

Emergency Plan Clean Copy Pages – James A. FitzPatrick Nuclear Power Plant

Standardized Emergency Plan EP-AA-1000

and

Emergency Plan Annex EP-AA-1014

Affected Pages

Standardized Emergency Plan EP-AA-1000

Clean Copy

EXELON NUCLEAR

STANDARDIZED
RADIOLOGICAL EMERGENCY PLAN

Shift Technical Advisor (STA): During normal plant operations, the Senior Reactor Operators report to the Shift Manager and directly supervise the licensed Reactor Operators and all activities in the Control Room. During an abnormal condition, the Shift Manager assumes direct supervision of personnel and all activities in the Control Room while a qualified individual steps back and assumes an overview role as an STA with the specific responsibility of monitoring the maintenance of core cooling and containment integrity. An individual assigned the duty as the STA shall be available to the Control Room at all times.

Radiation Protection: The Station Radiation Protection personnel are responsible for the handling and monitoring of radioactive materials. Included in this organization are Health Physicists, Radiation Protection Supervisors and Technicians.

Chemistry: The Station Chemistry personnel are responsible for sampling of system effluents, and the chemical and radio-analytical analysis of those samples. Included in this organization are Chemists, Chemistry Supervisors and Technicians.

Security: The Station Security personnel are responsible for the physical security of the site. Included in this organization are Security Supervisors and Security Guards.

2. Authority Over the Emergency Response Organization

The Emergency Director in Command and Control is the designated Exelon Nuclear individual who has overall authority and responsibility, management ability, and technical knowledge for coordinating all emergency response activities at the nuclear power station.

- Control Room: Shift Emergency Director (Shift Manager)
- TSC: Station Emergency Director
- EOF: Corporate Emergency Director

3. Criteria for Assuming Command and Control (Succession)

Emergency personnel assume responsibility for their positions upon receiving notification to activate. The responsibility for initial assessment of and response to an emergency rests with the Shift Manager. The Shift Manager is the Shift Emergency Director and has the Station and Corporate Emergency Director's responsibilities and authority until relieved. The Corporate Emergency Director, once having relieved the Shift Manager of the Emergency Director responsibilities, is responsible for continued assessment of the severity of the emergency and for the necessary functions as described in the E-Plan, the Station Annex, and the emergency implementing procedures.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Following the Command and Control turnover, the Corporate Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Station Emergency Director takes responsibility for onsite Non-Delegable Responsibilities including Classification and Emergency Exposure Control. The Corporate Emergency Director takes responsibility for offsite Non-Delegable Responsibilities including Protective Action Recommendations and State/local Notifications.** Command and Control does not transfer until the following criteria have been met:

- Adequate staff levels are present in support of the non-delegable responsibilities.
- The staff has been fully briefed as to the status of the event and the currently proposed plan of action.
- A turnover between the Emergency Director relinquishing Command and Control and the Emergency Director assuming Command and Control has been made.

Although Exelon Nuclear's ERO fulfills all regulatory requirements for emergency response, it may be altered by the Emergency Director. This type of alteration will be based upon identified needs within the ERO, event dependent criteria, and identified needs of the company as a whole.

4. Non-Delegable Responsibilities

Non-delegable responsibilities include the following functions:

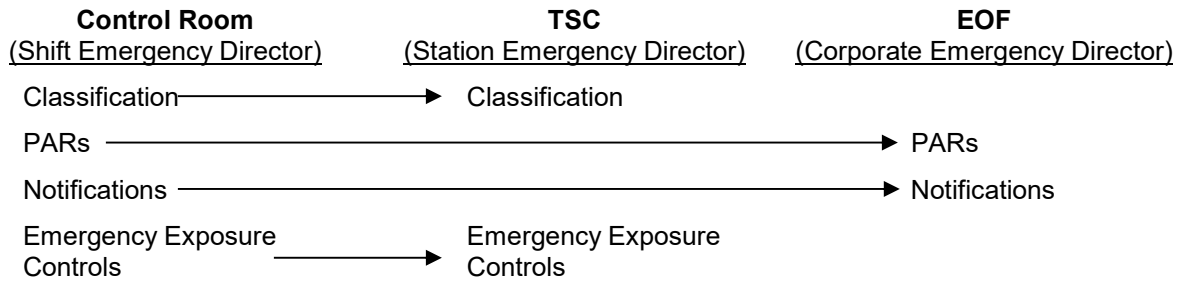
- Event classification.
- Protective Action Recommendations (PARs) for the general public.
- Notification of offsite authorities (approval of state/local and NRC notifications).
- Authorization of emergency exposure controls in excess of 5 Rem TEDE and the issuance of potassium iodide (KI), for Exelon Nuclear emergency workers per EPA-400.

The Shift Manager is responsible for the initial classification of an event and assumes the position as Shift Emergency Director. In this capacity, the Shift Manager has responsibility for performing the non-delegable responsibilities until relieved.

The Shift Emergency Director is relieved of Command and Control as soon as possible after the declaration of an Alert (or higher classification if Alert not declared). **Overall** Command and Control is transferred to the Corporate Emergency Director.

The Station Emergency Director assumes overall authority and responsibility for **Classification and Emergency Exposure Control**. The Corporate Emergency Director (EOF) assumes the non-delegable responsibilities for PAR determination and notifications to offsite authorities.

Transition of “Non-Delegable” Responsibilities



5. Emergency Response Organization Positional Responsibilities

The Emergency Plan designates two types of augmented ERO responders. Those designated as Minimum Staff are those key ERO needed to relieve the on-shift staff of key EP functions/tasks required in response to the Emergency and are those required to activate their respective Emergency Response Facility (ERF). Specifically, these are the ERO that are the absolute minimum needed to implement the emergency plan (i.e., if any position or function is not staffed then the emergency plan may not be effectively implemented). These positions in most cases are required to respond to their respective ERF within 60 minutes of the declaration of an Alert or higher. See Appendix 5, Table 5-1 for the list of On-shift and Minimum Staff positions.

The positions which are considered Full Augmented staff (i.e., non-min staff) are those positions which provide support for the minimum staff in their response to the Emergency. The Full Augmentation positions consist mostly of liaisons, coordinators and additional communicators which help facilitate communication and the emergency response effort over time, but are not directly needed to implement the functions/tasks identified in the Emergency Plan.

ERO staffing tables contained within [this Emergency Plan](#), outlines ERO positions required to meet minimum staffing of the on-shift complement at an Alert or higher classification, and the major tasks assigned to each position. The full augmentation staffing levels are [described in Emergency Preparedness Implementing Procedures \(EPIPs\)](#). For extended events (one which lasts for more than 24 hours), actual staffing will be established by the Emergency Director based on the event and personnel availability. However, additional staffing or reduced staffing will only occur after discussion concerning the impact on plant operations and emergency response.

In addition to maintaining adequate documentation of the event, responsibilities for each position are as follows:

- a. Station Emergency Response Organization: The Station ERO is the onsite group that is activated during an emergency. It functions under the Station Emergency Director, who is responsible for organizing and coordinating the emergency efforts at and within the immediate vicinity of the station (including carrying out all onsite emergency efforts and the initial offsite environs monitoring efforts necessary to assess plant releases).

The Station ERO consists of station personnel who are involved with emergency response efforts necessary to control the plant during an incident. This organization operates out of the Control Room, the Technical Support Center (TSC) and the Operations Support Center (OSC). Collectively, members of the Station ERO provide for the following activities during an emergency:

- Plant systems operations
- Radiological survey and monitoring (including Environs Monitoring)
- Firefighting

- Rescue operations and First Aid
- Decontamination
- Security of plant and access control
- Repair and damage control
- Personnel protection including Assembly, Accountability and Evacuation
- Communications

When plant conditions warrant entry into the Severe Accident Management Guidelines (SAMGs), the Station Emergency Director or other qualified individual (e.g., Operations Manager) assumes the role of Decision-Maker. Other qualified individual(s) assumes the role of Evaluator (at least 2 are required), and the Control Room staff assumes the role of Implementers. Control Room personnel will perform mitigating actions for severe accidents per EOPs prior to TSC activation.

All Station ERO personnel shall have the authority to perform assigned duties in a manner consistent with the objectives of this plan.

1) Shift Manager (Shift Emergency Director) Control Room

A Shift Manager is on duty 24 hours a day and is the Shift Emergency Director in a declared emergency until relieved of this function. While serving in this capacity the Shift Manager is responsible for:

- Activating the ERO (as deemed appropriate or as procedurally required).
- Performing those duties outlined in Section B.5.a.2 for the Station Emergency Director.

The on-duty Shift Manager directs the activities of the operating crew and is responsible for the safe operation of the plant in compliance with the station NRC operating license and the station operating procedures. The Shift Manager, after relinquishing Command and Control, functionally reports to the Operations Manager in the TSC.

The Shift Manager's responsibilities, when not in Command and Control, are described below:

- The authority and responsibility to shutdown the reactor when determined that the safety of the reactor is in jeopardy or when operating parameters exceed any of the reactor protection circuit set-points and automatic shutdown does not occur;
- To ensure a review has been completed to determine the circumstance, cause, and limits under which operations can safely proceed before the reactor is returned to power following a trip or an unscheduled or unexplained power reduction;

- The responsibility to be present at the plant and to provide direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction;
- The responsibility to adhere to the station Technical Specifications and to review routine operating data to assure safe operation;
- The responsibility to identify applicable EALs and emergency classifications; and
- The responsibility to adhere to plant operating procedures and the requirements for their use. During an emergency, operations personnel may depart from approved procedures where necessary to prevent injury to personnel, including the public, or damage to the facility consistent with the requirements of 10 CFR 50.54(x) and (y).
- Supervise the activities of the Control Room Crew.

2) Station Emergency Director

TSC

The Station Emergency Director reports to the Corporate Emergency Director and supervises and directs the Station ERO. The Station Emergency Director's responsibilities include organizing and coordinating the onsite emergency efforts. Additionally, the Station Emergency Director has the requisite authority, plant operating experience and qualifications to implement in-plant recovery operations.

a) Station Emergency Director Responsibilities

- **Activate the Facility**
- Conduct personnel assembly/accountability and evacuation of non-essential personnel at Site Area Emergency, General Emergency or as conditions warrant.
- If the emergency involves a hazardous substance and/or oil discharges, ensure that appropriate notifications and responses have been made.
- Determine if the OSC is to remain activated at the Alert Classification.
- Event classification.
- Emergency exposure controls.
- Protective actions for all onsite personnel.
- Supervision of the Station ERO.

- Inform the Corporate Emergency Director and onsite NRC as to the status of the plant.
- Assist the Corporate Emergency Director in the acquisition of information for the state/local notifications, NRC notifications and offsite agency updates.
- Provide information and recommendations to the Corporate Emergency Director.
- Implement plans, procedures and schedules to meet emergency response objectives as directed by the Corporate Emergency Director.
- Request from the Corporate ERO any additional material, personnel resources or equipment needed to implement response plans and operations.
- Assume the duties and responsibilities of Decision-Maker when a transition to Severe Accident Management Guidelines (SAMGs) is initiated. This responsibility can be delegated to the Operations Manager if qualified.

3) ENS Communicators TSC

Responsibilities assigned to the ENS Communicators include:

- Establish communications with appropriate parties as directed.
- Transmit information that has been reviewed and/or approved by the responsible Manager or Coordinator.
- Document time, date and information being transmitted or received on appropriate forms.
- Record and relay inquiries and the responses to those inquiries.
- Assist appropriate Managers and Coordinators in maintaining proper records and logs of emergency related activities.
- Gather, record and post appropriate information.
- Notify the NRC of changes in event classification and assist in completing the NRC Event Notification Worksheet and responding to NRC inquiries.
- Provide real time updates of significant changes to plant and system status and responses to NRC inquiries.

- Maintain continuous communications with the NRC, if requested, via the NRC ENS phone or commercial telephone line.

4) Operations Manager TSC

The Operations Manager reports to the Station Emergency Director. Major functions include determining the extent of station emergencies, initiating corrective actions, and implementing protective actions for onsite personnel. In the event that the Station Emergency Director becomes incapacitated and can no longer fulfill the designated responsibilities, the Operations Manager will normally assume the responsibilities until relieved by another qualified Station Emergency Director. Responsibilities include:

- Coordinate TSC efforts in determining the nature and extent of emergencies pertaining to equipment and plant facilities in support of Control Room actions.
- Initiate immediate corrective actions to limit or contain the emergency invoking the provisions of 10 CFR 50.54(x) if appropriate, and specifically when addressing Severe Accident Management Guidelines (SAMG).
- Recommend equipment operations checks and miscellaneous actions to the Control Room in support of restoration and accident mitigation.
- Approve emergency special procedures, and implement as required under the provisions of 10 CFR 50.54(x).
- Assist in determining the priority assigned to OSC activities.
- Organize and direct medical response efforts for injured personnel.
- Ensure adequate staffing of the Control Room and TSC subordinates.
- Ensure the Shift Manager is informed of OSC staffing utilization and activities.
- Identify steps or procedures that the Operations staff should be utilizing to properly respond to the emergency condition.
- Assist the Station Emergency Director in evaluating changes in event classification.
- Supervise the activities of the ENS Communicator in the TSC.
- Act as the TSC liaison with the appropriate NRC Site Team Representative.

At the direction of the Station Emergency Director, assume the duties and responsibilities of the Evaluator, or Decision-Maker if qualified, when transition to Severe Accident Management Guidelines (SAMG) is initiated.

5) Technical Support Staff TSC

The TSC Technical Support Staff consists of the following minimum staff engineering positions:

- Electrical Engineer
- Mechanical Engineer
- Core/Thermal Hydraulic Engineer - serves as Core Damage Assessment Methodology (CDAM) Evaluator, as applicable.

In addition, station Engineering support will be augmented on an as needed basis to support accident assessment and mitigation activities.

6) Radiation Protection Manager (RPM) TSC

The Radiation Protection Manager reports to the Station Emergency Director. The TSC RPM directs staff in determining the extent and nature of radiological or hazardous material problems onsite. Responsibilities include:

- Accumulate, tabulate and evaluate data on plant conditions such as meteorological and radiological monitoring readings, and other pertinent data.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Ensure use of protective clothing, respiratory protection, and access control within the plant as deemed appropriate to control personnel exposures.
- Ensure that appropriate bioassay procedures have been implemented for onsite personnel when a radioactivity incident has occurred.
- Ensure that personnel are decontaminated, if necessary.
- Authorize personnel exposures below 5 Rem TEDE (EPA-400 lower limit).
- Assist the Station Emergency Director in determining if exposures in excess of the 5 Rem TEDE (EPA-400 lower limit) are necessary.
- Advise the Station Emergency Director of situations when the use of KI should be considered.
- Advise the Station Emergency Director and EOF Radiation Protection Manager of changes in radiological release status.

- Assist the Operations Manager in planning rescue operations and provide monitoring services as required, including the transfer of injured and/or contaminated personnel.
- Coordinate with the Security Coordinator to determine the routes to be used for evacuation of non-essential personnel.
- Assure additional radiation protection personnel and/or equipment is arranged for, as necessary.

7) Security Coordinator TSC

The Security Coordinator reports to the Station Emergency Director and maintains plant security and personnel accountability at the nuclear station. Responsibilities include:

- Maintain plant security and account for all personnel within the protected area.
- Assist the Station Emergency Director in evaluating changes in security related threats and event classifications.
- Identify any non-routine security procedures and/or contingencies that are in effect or that require a response.
- Expedite ingress and egress of emergency response personnel.
- Coordinate with the Radiation Protection Manager in controlling ingress and egress to and from the Protected Area if radiological concerns are present.
- Provide for access control to the Control Room, TSC and OSC, as appropriate.
- Expedite entry into the Protected Area, as necessary, for the NRC Site Team.
- Act as the TSC liaison with the appropriate NRC Site Team representative.
- Assist the Radiation Protection Manager in determining personnel evacuation routes as necessary.
- Coordinate the evacuation of station non-essential personnel with the appropriate Local Law Enforcement Agencies (LLEAs).

8) Operations Support Center Director OSC

The OSC Director reports to the **Emergency Director** and supervises the activities of OSC personnel. Responsibilities include:

- Assign tasks to designated Leads as available:
 - I&C Maintenance
 - Mechanical Maintenance
 - Electrical Maintenance
 - Radiation Protection
- Coordinate with Operations in the dispatch of Operations personnel to support Control Room and OSC Team activities.
- Notify the Control Room and TSC prior to dispatch of any OSC teams into the plant.
- Maintain OSC resources including personnel, material, and equipment.
- Maintain accountability for all individuals dispatched from the OSC.
- Conduct periodic briefings on the overall plant status, emergency response activities, and station priorities.
- Assemble and dispatch the Field Monitoring Teams as required.

9) OSC Leads OSC

OSC Leads report to the OSC Director and are assigned from the following station departments:

- Mechanical Maintenance
- Electrical Maintenance
- Instrument and Control
- Radiation Protection

The OSC Lead assigned to an OSC team is responsible at all times for the safety of team personnel and to keep the OSC Director apprised of team status. Specifically, the OSC Leads are responsible for the managing and supervising OSC team personnel, including:

- Conduct of adequate pre-dispatch briefings.
- Ensuring adequate protective equipment and measures have been identified.

- Tracking of OSC team activities while dispatched.
- Debriefing of team personnel upon return to the OSC.

b. Corporate Emergency Response Organization

1) Corporate Emergency Director EOF

a) When the Station Emergency Director has Command and Control, the ongoing responsibilities include:

- Coordinate all Exelon Nuclear activities involved with the emergency response.
- Ensure off-site agency updates are periodically communicated as required/requested.
- Coordinate Exelon Nuclear press releases with the Nuclear Duty Officer and Exelon Communications and Public Affairs.
- Request assistance from non-Exelon Nuclear emergency response organizations, as necessary.
- **Direct and coordinate the activation of the EOF.**

b) Following assumption of Command and Control, the additional responsibilities assigned to the Corporate Emergency Director include:

- Assumes overall Command and Control of emergency response activities and the non-delegable responsibilities for PAR determination and the notification of offsite authorities.
- Ensure that Federal, state and local authorities and industry support agencies remain cognizant of the status of the emergency situation. If requested, dispatch informed individuals to offsite governmental Emergency Operation Centers (EOCs).
- Approve the technical content of Exelon Nuclear press releases prior to their being released to the media.

2) Radiation Protection Manager EOF

The Radiation Protection Manager directs the activities of the EOF Radiation Protection staff. Specific responsibilities include:

- Recommend changes in event classification and PARs based upon effluent releases or dose projections.
- Assist the **Emergency** Director in the evaluation of the significance of an emergency with respect to the public.

- Notify the **Emergency** Director of meteorological changes that may impact identification of downwind areas.
- Advise the Corporate Emergency Director of protective actions taken by the station for plant personnel.
- Assist the TSC in the planning and coordination of activities associated with the evacuation of non-essential personnel.
- Advise the Corporate Emergency Director on the need for emergency exposures or for issuance of KI to the Field Monitoring Teams or Exelon personnel required to enter the plume.
- Determine the need for and contact Occupational Health/Industrial Safety Services personnel for assistance.
- Monitor plant radiological conditions and advise the TSC Radiation Protection Manager of any adverse trends or potential release pathways that may impact existing event classification.
- Assist in the completion and review of the state/local notification form.
- Maintain cognizance of environmental sampling activities.
- Ensure state authorities are provided information pertaining to Exelon Field Monitoring Team activities and sample results.
- Assist the affected station in the following areas:
 - Planning and coordination of activities associated with the evacuation of non-essential personnel.
 - Acquisition of additional instrumentation, dosimetry, protective equipment and radiological support personnel.
- Assist and interface with the EOF Technical Support Group and the station in the development of plans for plant surveys, sampling, shielding, and special tools in support of waste systems processing and design modification activities.
- Upon request, provide in-plant health physics data to Emergency Public Information personnel.
- **Coordinate Field Monitoring Team activities.**
- **Determine needs of the Dose Assessment Coordinator and the ENS Communicator for updates on Field Monitoring Team data and ensure distribution of new data to them in accordance with those needs.**

- Promptly report new environmental or Field Monitoring Team exposure data to the Dose Assessment Coordinator.

3) Dose Assessment Coordinator EOF

The Dose Assessment Coordinator reports to the EOF Radiation Protection Manager. Responsibilities include:

- Interpret radiological data and provide PARs based upon dose projections to the EOF Radiation Protection Manager.
- Advise the EOF Radiation Protection Manager of changes in event classification based on effluent releases or dose projections.
- Initiate evaluation of the need for administering KI to Exelon nuclear workers.
- Remain cognizant of forecast and meteorological data and ensure the status is updated periodically.
- Notify the EOF Radiation Protection Manager of meteorological changes that may impact identification of downwind areas.
- Upon request, provide release and dose assessment data to Emergency Public Information personnel, .
- Perform dose projections using the Dose Assessment computer models.
- Monitor meteorological and plant effluent conditions.
- Evaluate the need for administering KI to Exelon nuclear workers.
- Coordinate Field Monitoring Team activities

4) Computer Specialist EOF

The Computer Specialist reports to the Emergency Director. Responsibilities include:

- Assist any personnel in logging in, initializing or using a desired computer program.
- Investigate and repair problems encountered with communications equipment and computer equipment/applications.

5) State/Local Communicator EOF

The State/Local Communicator reports to the Emergency Director. Responsibilities include:

- Communicate and receive information via the Nuclear Accident Reporting System (NARS) circuit or commercial telephone line with appropriate state and county agencies.
- Prepare state/local notification forms with the assistance of the Corporate Emergency Director.

c. Public Information Emergency Response Organization

1) Corporate Spokesperson JIC

The Corporate Spokesperson reports to the Corporate Emergency Director and is responsible for directing the Exelon Emergency Public Information Organization and providing news information to the media. Responsibilities include:

- Maintain command and control of the Joint Information Center.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Conduct periodic briefings with the news media.
- Interface with the Public Information Director.
- Coordinate and direct responses to media inquiries.
- Ensure that the composition and timeliness of Exelon News Releases are adequate.
- Provide for timely exchange of information between other spokespersons.

2) JIC Director JIC

The JIC Director reports the Corporate Spokesperson to ensure the operability of and to supervise the activities in the JIC. Responsibilities include:

- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate with Federal, state and local agencies, as well as with other organizations involved in the emergency response, to maintain factual consistency of information to be conveyed to the news media/public.
- Participate, as needed, in rumor control activities.
- Ensure that adequate information flow between the EOF and the JIC is coordinated through the Public Information Director.

- Authorize admittance of non-Exelon Nuclear officials to the JIC.
- Until the JIC is fully staffed, work with Corporate Communications to compose draft news releases.
- Provide the drafted news releases to the Corporate Emergency Director for technical review prior to Public Information Director approval.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that rumors are reviewed, documented and responded to by Exelon Nuclear personnel as deemed appropriate.
- Until the JIC is fully staffed, work with Corporate Communications to document and respond to rumors as quickly as possible, through the Exelon Communications and Public Affairs.
- Until the JIC is fully staffed, work with Corporate Communications to ensure that the media is being monitored and that Exelon Nuclear personnel review the information detailed or contained in media releases.

3) Public Information Director (PID) JIC

When the Emergency Public Information Organization is activated, the Public Information Director reports to the Corporate Spokesperson and is responsible for all emergency event related information intended to be conveyed from Exelon Nuclear to the news media/public. **The Public Information Director may perform this function at remote locations.** Responsibilities include:

- Provide the Corporate Emergency Director with an overview of the public and media impacts resulting from the Exelon Nuclear and governmental activities.
- Participate with the Corporate Emergency Director regarding information to be released to the public.
- Authorize the issuance of news releases.
- Interface with the Corporate Spokesperson at the JIC.
- Act as a liaison between the ERO and Exelon Nuclear's corporate executives.
- Maintain cognizance of conditions of the plant and environment, and the actions of Exelon Nuclear and governmental support personnel.
- Coordinate information flow between the EOF and the JIC.
- **Review** and access media coverage of the emergency event.

6. Exelon Emergency Response Organization Block Diagram

ERO staffing tables contained in Appendix 5, lists the key positions of the ERO. Figures B-1a through B-1d illustrates the overall emergency response organization. Section B.5 discusses specific responsibilities and the interrelationships for key positions.

7. Exelon Corporate Emergency Response Organization

The Corporate ERO consists of the EOF Organization and the Emergency Public Information Organization. Personnel staffing these corporate organizations are covered in detail in Section B.5 of this plan.

The Corporate Emergency Response Organization is staffed by Exelon personnel, and operates out of the Emergency Operations Facility (EOF) and the Joint Information Center (JIC). The Corporate ERO is supported by News Media Spokespersons, environmental assessment staff and monitoring teams that provide long-term support to the affected station. Additionally, the Corporate ERO has long term liaison responsibilities with federal, state, and local authorities. These positions are further described in the EPIPs.

The Emergency News Center (ENC) function is responsible for the collection and analysis of event information and status, and development of Company news statements. This information is then communicated to the JIC Corporate Spokesperson. The ENC function may be located at either the EOF or the JIC.

The EOF is activated at an Alert. The EOF Organization is responsible for evaluating, coordinating and directing the overall company activities involved in the emergency response. Within the EOF, the Corporate Emergency Director shall assume Command and Control from the Shift Emergency Director when classification escalates to an Alert or higher, unless the EOF capabilities are limited such that the overall control and responsibility for PARs and offsite notifications cannot be assumed. The JIC is activated within 90 minutes of an Alert or higher. Some JIC functions may continue to be performed by the Exelon Communications organization until transferred to the JIC.

8. Industry/Private Support Organizations

Exelon Nuclear retains contractors to provide supporting services to nuclear generating stations. A contract/purchase order with a private contractor is acceptable in lieu of an agreement letter for the specified duration of the contract. Among services currently provided are the following:

- a. Institute of Nuclear Power Operations (INPO): Experience has shown that a utility may need resources beyond in-house capabilities for the recovery from a nuclear plant emergency. One of the roles of the Institute of Nuclear Power Operations (INPO) is to assist affected utilities by quickly applying the resources of the nuclear industry to meet the needs of an emergency. INPO has an emergency response plan that enables it to provide the following emergency support functions:

Figure B-1a: Exelon Overall ERO Command Structure

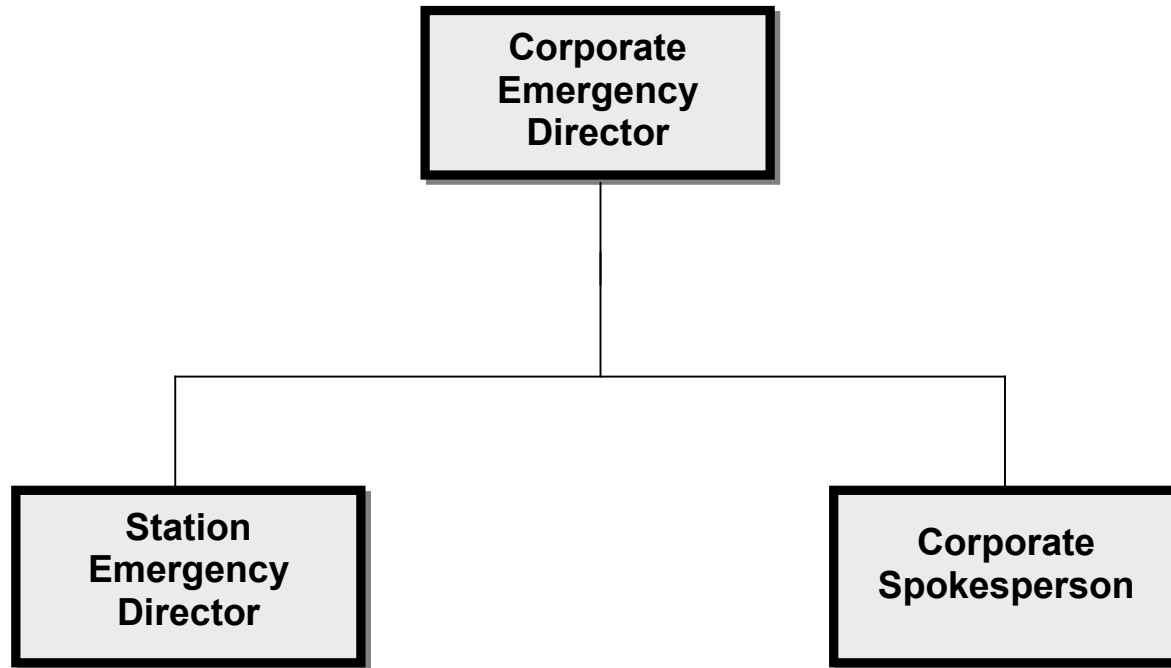
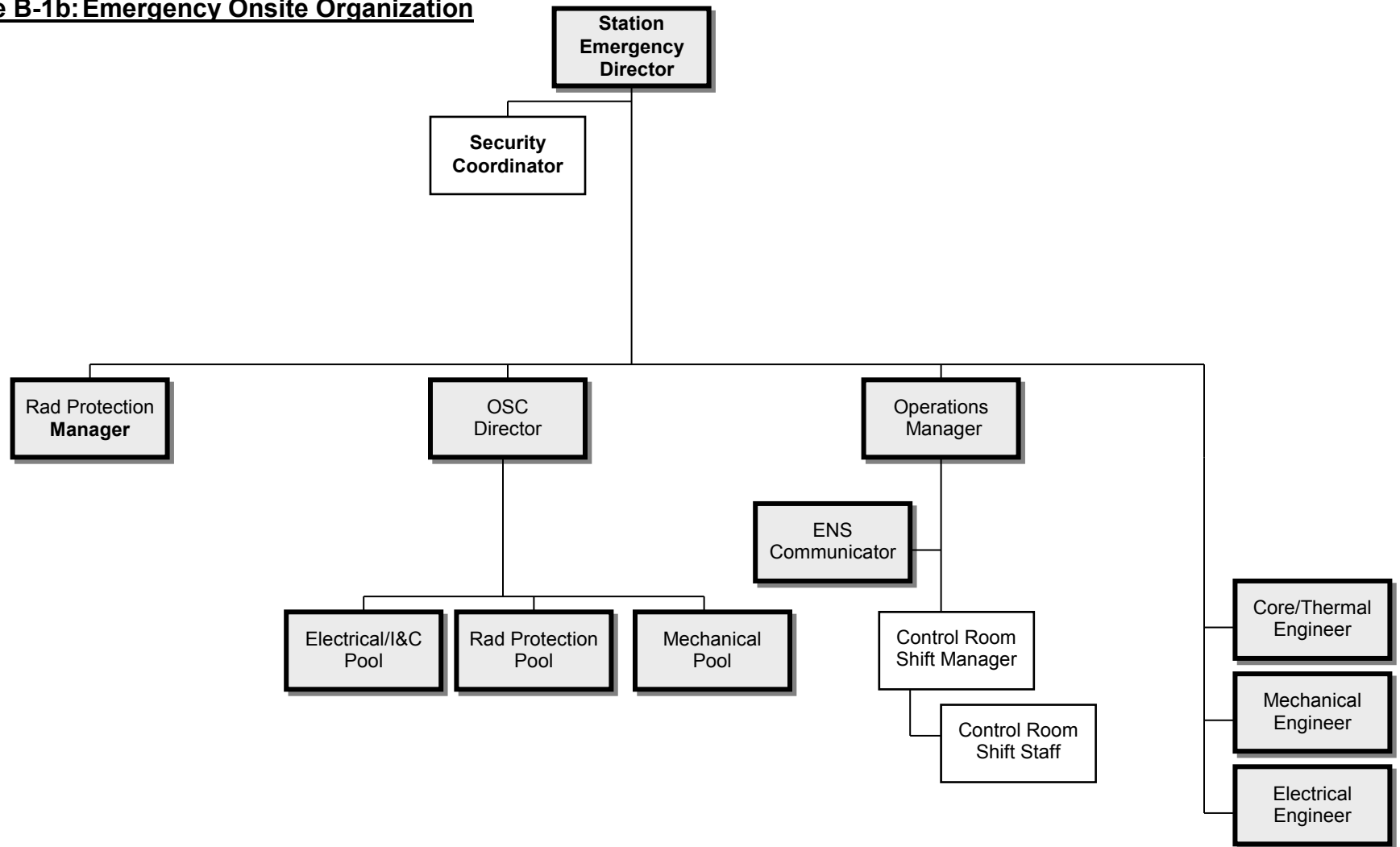


Figure B-1b: Emergency Onsite Organization



ERO response pool personnel do not include the on-shift complement.

SAMG functions requires 1 Decision-Maker and 2 Evaluators.

Figure B-1c: Emergency Offsite Organization

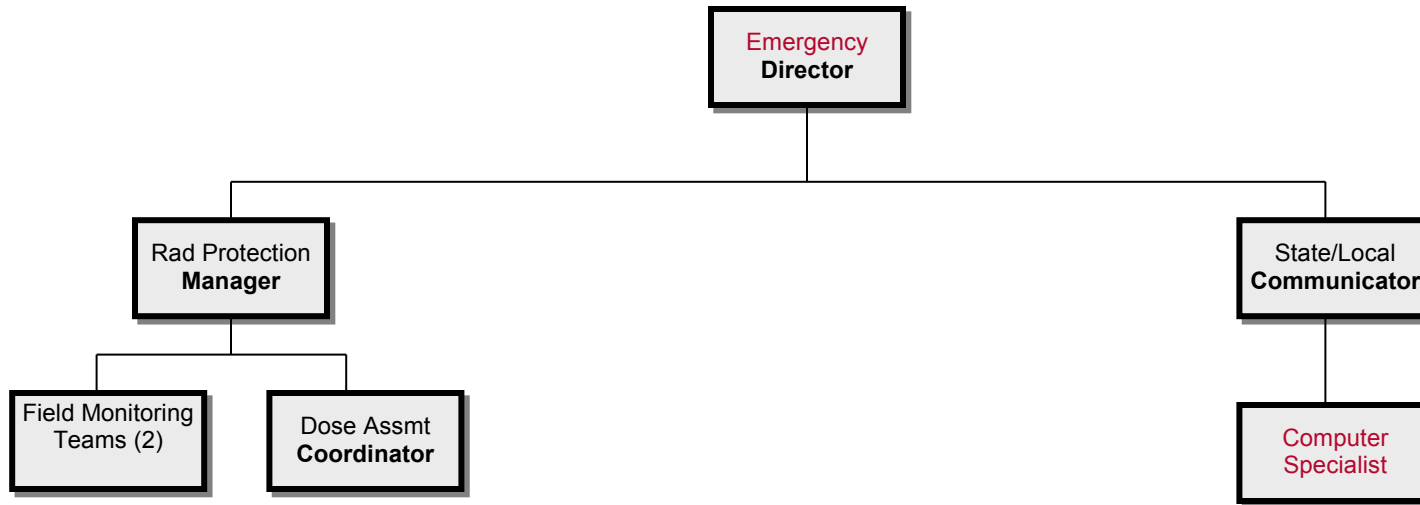
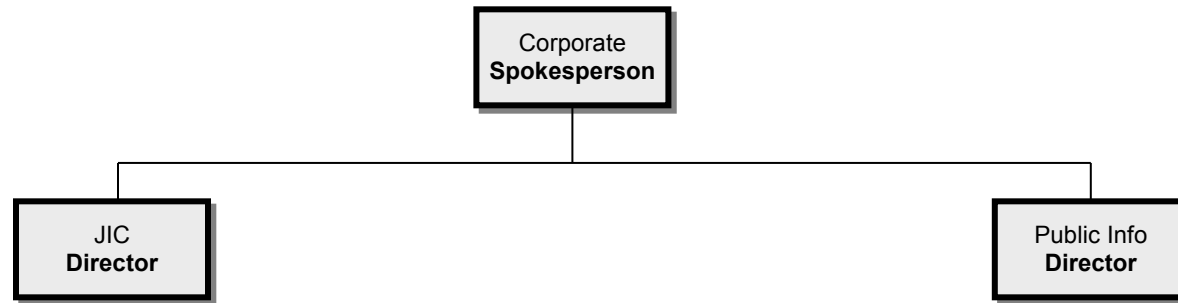


Figure B-1d: Emergency Public Information Organization



- 9) Field Monitoring Team (FMT) Communications: A separate communications system has been installed to allow coordinated environmental monitoring and assessment during an emergency. This system consists of the necessary hardware to allow communication between the Control Room, TSC, EOF, and mobile units in Exelon Nuclear vehicles. Though direct communications between the Control Room and the FMTs is not required per the prescribed methods of FMT coordination, the FMTs can be contacted from equipment in the Control Room if required. Commercial cell phones or other means are available as back up to the primary field team communications system.

In addition, station communication links exist to ensure appropriate information transfer capabilities during an emergency. The station may also utilize its Public Address System, station radios and notification devices to augment its emergency communications.

- e. ERO Notification System: Exelon Nuclear utilizes an automated ERO Notification System to rapidly notify members of the ERO. The system consists of a network of physical infrastructure capable of initiating and receiving contact via multiple notification devices. When activated, the system contacts the notification devices (e.g., through commercial and cellular phone, email, text message) belonging to members of the ERO. The System includes redundant activation methods via the internet, call-centers, or direct telephone activation, as well as redundant, geographically separated call centers and data centers, with redundant power sources. Implementing procedures specify the course of action to be taken if the primary ERO Notification System activation path fails to respond. The ERO Notification System provides primary and back-up notification functions. For the Exelon North East sites, the ERO notification system description is contained in the Station Annex and EP implementing procedures.

- f. NRC Communications (ENS)

Communications with the NRC Operations Center will be performed via the NRC ENS circuits or commercial telephone line. Information is normally communicated from an approved NRC Event Notification Worksheet prior to establishing an open ENS.

The actual configuration of these systems may vary from station to station. Installation and use of these NRC telephones is under the direction of the NRC (see Figure F-3).

Emergency Notification System (ENS): Dedicated telephone equipment is in place between each nuclear station's Control Room and the NRC, with an extension of that line in the TSC. A separate line is available in the EOF with the capability of being patched with the station through the NRC. This line is used for NRC event notifications and status updates.

Figure F-1: Exelon Notification Scheme (For Full Augmentation)

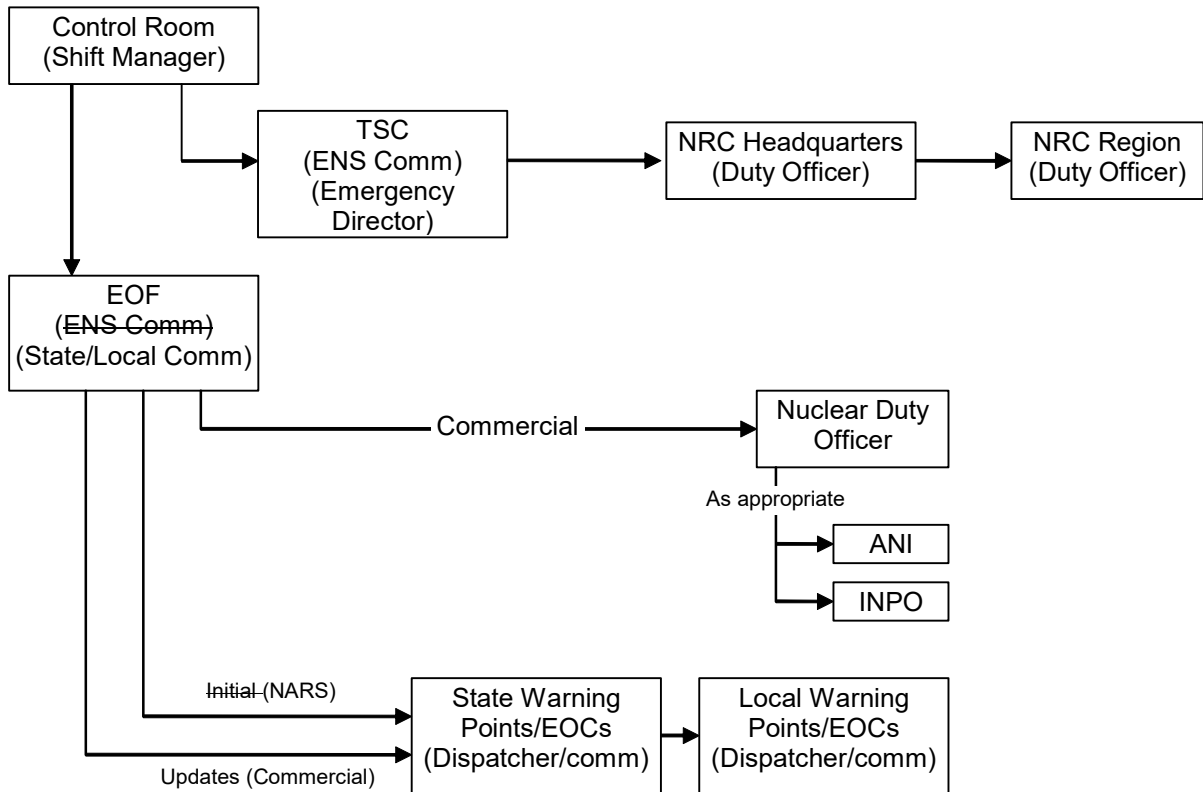
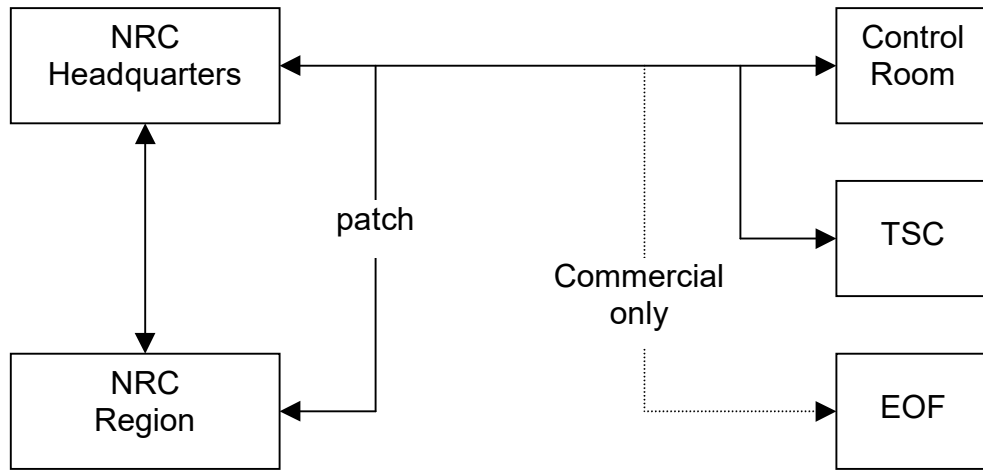


Figure F-3: NRC Communications for Nuclear Response



NOTE: ENS circuits may use the Federally maintained system, company tie lines or PBX as dedicated primary communications systems and have commercial backups.

The primary purpose of the Emergency Public Information Organization is to disseminate information from Exelon Nuclear's ERO about the emergency events to the public, via the news media. However, the authority for issuance of news releases for the classification of an Unusual Event or prior to ERO activation will always reside with the Exelon Communications and Public Affairs Department. Upon activation, the Emergency Public Information Organization has the responsibility and authority for issuance of news releases to the public.

The Emergency Public Information Organization is comprised of senior managers from Exelon Nuclear who will function as spokespersons, and other Exelon Nuclear individuals including personnel from the Governmental Affairs and Human Relations areas. Exelon Nuclear's spokespersons disseminate information to the news media/public concerning the emergency events out of a Joint Information Center (JIC).

- 2) The Joint Information Center (JIC): 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. Exelon public information personnel operate from the EOF and the JIC, which 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.

Each station has a designated JIC. Each 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, JICs are 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 is activated at the declaration of an Alert or higher classification. **Some JIC personnel may perform functions remotely from alternate locations while remaining in contact with personnel in the JIC facility (e.g., media monitoring, rumor control, news writers, issuance of press releases). The JIC Director and Corporate Spokesperson will ensure communication and coordination of these functions with the EOF and JIC staff.** 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, FEMA, and industry-related organizations.
- Providing telephones for use by the news media personnel.

- Providing responses to media inquiries through telephones that the media can call for information about an emergency.

b. The news media is not permitted into the EOF during an emergency.

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 **JIC Staff**. 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 MA Region Three Mile Island, Limerick and Peach Bottom Stations is 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.

Personnel in the TSC shall be protected from radiological hazards, including direct radiation and airborne contaminants under accident conditions with similar radiological habitability as Control Room personnel. To ensure adequate radiological protection, permanent radiation monitoring systems have been installed in the TSC and/or periodic radiation surveys are conducted. These systems indicate radiation dose rates and airborne radioactivity inside the TSC while in use. In addition, protective breathing apparatus (full-face air purifying respirators) and KI are available for use as required.

The TSC has access to a complete set of as-built drawings and other records, including general arrangement diagrams, P&IDs, and the electrical schematics. The TSC has the capability to record and display vital plant data, in real time, to be used by knowledgeable individuals responsible for engineering and management support of reactor operations, and for implementation of emergency procedures.

- c. Operations Support Center (OSC): Each nuclear generating station has established an OSC. The OSC is the onsite location to where station support personnel report during an emergency and from which they will be dispatched for assignments or duties in support of emergency operations. The OSC shall be activated whenever the TSC is activated, but need not remain activated at the Alert level if its use is judged unnecessary by the Station Emergency Director. At the Site Area and General Emergency levels, the OSC or an alternate OSC shall be activated at all times. The OSC is not activated for a HOSTILE ACTION when the Alternative Facility is implemented. Activation for other events is optional. Station disciplines reporting to the OSC include, but are not limited to:
- Operating personnel not assigned to the Control Room,
 - Radiation Protection Personnel,
 - Maintenance Personnel (mechanical, electrical and I&C).

Figure B-1b illustrates the staffing and organization for the OSC.

Each OSC is equipped with communication links to the Control Room, the TSC and the EOF (see Section F). A limited inventory of supplies will be kept for the OSC. This inventory will include respirators, protective clothing, flashlights and portable survey instruments.

2. Emergency Operations Facility (EOF)

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 classification. The EOF provides for:

- Management of overall emergency response.
- Coordination of radiological and environmental assessments.

3. Emergency Operations Centers

EOCs operated by the state and local communities have been established to perform direction and control of emergency response functions.

The respective state EOCs are capable of continuous (24-hour) operations for a protracted period. These centers contain sufficient communications (radio, telephone and teletype) equipment, maps, emergency plans, and status boards to provide the necessary interfaces with other federal, state, county, and Exelon emergency facilities.

The county EOCs serve as Command and Control headquarters for local emergency response activities as well as a center for the coordination of communications to field units and to the state EOCs. These EOCs have the equipment necessary, (such as facsimile machines, telecommunications equipment, radio gear, photocopiers, wall maps, etc.) to carry out their emergency responsibilities.

4. Activation

NOTE: NUREG-0654 Criterion II.B.5 states that the “licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency”. It further defines that short period as 30 and 60 minutes. The time frames for rapid augmentation of a nuclear power plant staff in the event of an emergency are not rigid inviolate requirements but rather goals. It is Exelon Nuclear’s intent to expend its best efforts to meet the augmentation criteria goals regarding staffing Emergency Response Facilities with sufficiently skilled individuals capable of handling an emergency. Both the NRC and Exelon Nuclear realize that due to diversity of normal residential patterns for the stations’ staff, possible adverse weather conditions, road congestion and site access restrictions, these time frames might be exceeded.

Exelon Nuclear has put into place plans and procedures to ensure timely activation of its emergency response facilities. The Shift Manager (as Shift Emergency Director) will initiate a call-out in accordance with the implementing procedures. The ERO augmentation process identifies individuals who are capable of fulfilling the specific response functions that are listed in ERO staffing tables contained within the station specific Annex. This table was developed based on the functions listed in NUREG-0654, Table B-1.

Although the response time will vary due to factors such as weather and traffic conditions, a goal of 60 minutes for minimum staffing, following the declaration of an Alert or higher emergency classification, has been established for the ERO personnel responding to the station emergency facilities and the EOF. Additionally, plans have been developed to ensure timely functional activation and staffing of the JIC **within 90 minutes of** when the classification of Alert **or higher** is declared.

It is the goal of the organization to be capable of activating the applicable Emergency Response Facility upon achieving minimum staffing. The facility can be declared activated when the following conditions are met:

- a. Minimum staffing has been achieved.
- b. The facility is functional.

The Director in charge may elect to activate their facility without meeting minimum staffing; if it has been determined that sufficient personnel are available to fully respond to the specific event (this would not constitute a successful minimum staff response).

5. Monitoring Equipment Onsite

Each nuclear station is equipped with instrumentation for seismic monitoring, radiation monitoring, fire protection and meteorological monitoring. Instrumentation for the detection or analysis of emergency conditions is maintained in accordance with station Technical Specifications, if applicable, or commitments made to the NRC. The actual instrumentation varies somewhat from site to site and thus will not be described in detail in this plan. Descriptions of the equipment will appear in each Station Annex. This equipment includes but is not limited to the following:

a. Geophysical Monitors

- 1) Meteorological Instrumentation: A permanent meteorological monitoring station is located near each station for display and recording of wind speed, wind direction, and ambient and differential temperature for use in making offsite dose projections. Meteorological information is presented in the CR, TSC, and EOF by means of the plant computer system. This information is remotely interrogated using a computer or other data access terminal.

With regard to Exelon Nuclear's meteorological monitoring program, there has been a quality assurance program adopted from 10 CFR 50, Appendix B. However, since the meteorological facilities are not composed of structures, systems, and components that prevent or mitigate the consequences of postulated accidents and are not "safety related," not all aspects of 10 CFR 50, Appendix B, apply. Those aspects of quality assurance germane to supplying good meteorological information for a nuclear power station were adopted into the meteorological quality assurance program. The meteorological program is also subject to the requirements of the QATR, Section 19, Augmented Quality.

The National Weather Service (NWS), or regional weather forecast providers, may be contacted during severe weather periods. These providers analyze national and local weather in order to provide localized weather forecasts for the system or for the station area as appropriate.

Radiation Protection personnel are trained to assess the radiological hazards associated with equipment repair and instruct personnel as to the appropriate protective clothing requirements, respiratory protection requirements, stay times, and other protective actions specific to the conditions present.

At least 50% of personnel from those departments, who are potential responders to the OSC as Damage Control Team members, are required to be qualified in the use of respiratory protection equipment. This includes in-plant supervision and craft/technicians for the following departments:

- Operations
 - Radiation Protection
 - Maintenance (mechanical, electrical and I&C)
- f. First Aid and Rescue Personnel: First aid and rescue team members receive training as outlined in Part 3 of this section.
- g. Local Support Service Personnel: Local support service personnel providing assistance during an emergency are invited to receive training as outline in Parts 1.a and 1.b of this section.
- h. Medical Support Personnel: Onsite medical personnel receive specialized training in the handling of contaminated victims and hospital interface. Offsite ambulance and hospital personnel are offered annual training in accordance with a program provided by Emergency Preparedness.
- i. Public Information Personnel: Corporate and station personnel responsible for disseminating emergency public information and responding to media and public information requests receive specialized public information training.
- j. Communications Personnel: ERO personnel receive training on communications protocol as a part of the initial Emergency Response Overview Course. Personnel using specialized communications equipment that is not part of their normal daily function receive initial and requalification training on the equipment. Personnel involved in notifications to offsite agencies receive specialized training in the notification process.

5. General, Initial, and Requalification Training Program Maintenance

- a. Station Departments and Emergency Preparedness share the responsibility for ensuring that the ERO receives all necessary training and retraining. In order to carry this out, responsibilities are assigned as follows:

Corporate Responsibilities for Corporate ERO Personnel

- Scheduling and conducting initial, retraining, and make-up classes.
- Acting as the sole contact point for ensuring attendance.

Appendix 5

Table 5-1: Emergency Response Organization (ERO) Staffing and Augmentation Plan

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Command and Control</p> <ul style="list-style-type: none"> • Provide overall ERO command and control, until relieved. • Approve emergency action level (EAL) and/ or protective action recommendation (PAR) classifications, until relieved. • Authorize personnel dose extensions, until relieved. 	(1) Shift Emergency Director	(1) Station Emergency Director	Not applicable	(1) Corporate Emergency Director
<p>Communications³</p> <ul style="list-style-type: none"> • Communicate EAL and PAR classifications to offsite response organizations (OROs), including the NRC, until relieved. 	Shift Communicator ¹	(1) ENS Communicator (TSC)	Not applicable	(1) State / Local Communicator
<p>Radiation Protection</p> <ul style="list-style-type: none"> • Provide qualified radiation protection coverage for responders accessing potentially unknown radiological environments during emergency conditions. • Provide in-plant surveys. • Control dosimetry and radiologically controlled area access. 	(2) Radiation Protection Personnel ⁵	(3) Additional Radiation Protection Personnel [<i>In addition to personnel on-shift</i>] (OSC)	(3) Additional Radiation Protection Personnel [<i>In addition to personnel on-shift and those responding within 60 min.</i>] (OSC)	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
<p>Supervision of Radiation Protection Staff and Site Radiation Protection</p> <ul style="list-style-type: none"> Evaluate and assess plant and offsite radiological data in the development of onsite protective actions and offsite PARs, until relieved. Recommend onsite protective actions and offsite PARs to the applicable decision- maker, until relieved. Direct all radiation protection activities, including field monitoring team (FMT) direction, until relieved. Provide relevant information to applicable communicators who are communicating offsite PARs to OROs, until relieved. 	(1) Shift Emergency Director	(1) TSC Radiation Protection Manager (RPM) (TSC)	Not applicable	(1) EOF Radiation Protection Manager (EOF)
<p>Dose Assessments/ Projections</p> <ul style="list-style-type: none"> Perform dose assessments/projections and provide input to applicable PAR decision- maker, until relieved. 	(1) Shift Dose Assessor 1, 5	Not applicable	Not applicable	(1) Dose Assessment Coordinator (EOF)

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Emergency Classifications <ul style="list-style-type: none"> Evaluate plant conditions and recommend emergency classifications, until relieved. 	Emergency Classification Advisor ¹	(1) Operations Manager (TSC)	Not applicable	Not applicable
Engineering <ul style="list-style-type: none"> Provide engineering coverage related to the specific discipline of the assigned engineer, until relieved. 	(1) Core/Thermal Hydraulics Engineer - STA ¹ <ul style="list-style-type: none"> Evaluate reactor conditions. 	TSC Engineering Staff <ul style="list-style-type: none"> (1) Electrical/Instrumentation and Control (I&C): Provide engineering coverage for the ERO related to electrical or I&C equipment. (1) Mechanical: Provide engineering coverage for the ERO related to mechanical equipment. (1) Core/Thermal Hydraulics: Evaluate reactor conditions. 	As needed	Not applicable
Security	Security staffing per the site-specific security plan.	(1) Security Coordinator (TSC) <ul style="list-style-type: none"> Coordinate security-related activities and information with the Emergency Coordinator. 	Not applicable	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Repair Team Activities	Not applicable ⁴	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) Electrical Maintenance Technician: Provide electrical support for ECCS equipment, event mitigation, and equipment repair. (1) Mechanical Maintenance Technician: Provide mechanical support for ECCS equipment, event mitigation, and equipment repair. 	Maintenance Personnel (OSC) <ul style="list-style-type: none"> (1) I&C Technician: Provide assistance with logic manipulation, support for event mitigation and equipment repair, and support of digital I&C if applicable. Additional I&C staff may be called out if needed. Electrical Maintenance Technicians – As needed. Mechanical Maintenance Technicians – As needed. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Supervision of Repair Team Activities	Not applicable	<p>(1) OSC Director</p> <ul style="list-style-type: none"> Supervise OSC activities as directed by Emergency Coordinator. 	<p>OSC Supervisors</p> <ul style="list-style-type: none"> (1) Electrical Maintenance Supervisor /Lead: Supervise OSC activities related to electrical equipment. (1) Mechanical Maintenance Supervisor / Lead: Supervise OSC activities related to mechanical equipment. (1) I&C Supervisor / Lead: Supervise OSC activities related to I&C equipment. May be combined with Electrical Supervisor. (1) Radiation Protection Supervisor / Lead: Supervise OSC activities related to radiation protection. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF - Alert or Greater
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 60 min.
Field Monitoring Teams (FMTs)	Not applicable	<p>Onsite FM Individual</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the protected area for radiation and contamination and provide input to the TSC RPM. Responsible for radiation protection coverage for the FMT as directed by TSC RPM or EOF RPM. <p>Offsite FMT A</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	<p>Offsite FMT B</p> <ul style="list-style-type: none"> • (1) Qualified individual to assess the area(s) outside the protected area for radiation and contamination, and for radioactive plume tracking, as directed by, and under the control of, the EOF DAC or RPM. Responsible for the radiation protection coverage of the FMT as directed by EOF RPM. • (1) Driver to provide transportation. 	Not applicable

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90 min.
Media Information <ul style="list-style-type: none"> • Manage and coordinate media information related to the event. 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Corporate Spokesperson • JIC Director • Public Information Director

Emergency Preparedness (EP) Functions	On-Shift	TSC / OSC		EOF/JIC - Alert or Greater ²
		Alert or Greater Augment w/in 60 min.	Alert or Greater Augment w/in 90 min.	Augment w/in 90
JIC/EOF Information Technology (IT)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • (1) EOF/JIC Computer Specialist (@ 90 min from Alert or higher)¹

Notes:

1. Other personnel may be assigned this function if no collateral duties are assigned to an individual that are beyond the capability of that individual to perform at any given time.
2. Exelon’s Communication Department will perform necessary JIC functions at the Unusual Event declaration and initially upon a higher initial EAL declaration. The JIC facility will be activated within 90 minutes of an Alert declaration; however, some functions may continue to be performed by the Exelon Communications Department. Some JIC functions such as Public Information Director, New Writer, Media Monitor, Rumor Control may be performed remotely by Exelon’s Communication Department.
3. Additional Communications will be staffed at the EOF or TSC if needed.
4. At Clinton, one (1) Repair Team Activity position is filled by a station IMD person. The IMD person is annotated in this table to support performance of specific EOP activities such as lifting leads and installing jumpers. The IMD person is required on shift until such time that operators are trained and qualified to perform these tasks.
5. FitzPatrick only: FitzPatrick will staff one (1) RP Technician on-shift and one additional dedicated person to support on-shift Dose Assessment activities. Note 1 does not apply to FitzPatrick for the on-shift dose assessment function. Additional RP Technician support can be obtained from NMP if needed during an emergency.

Emergency Plan Annex EP-AA-1014

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EP-AA-1014
Revision X

EXELON NUCLEAR

RADIOLOGICAL EMERGENCY PLAN ANNEX FOR JAMES A. FITZPATRICK STATION

The industrial activities within 10 miles of the site are confined principally to the city of Oswego and the community of Scriba, with little industry in the outlying communities of Minetto, Volney, and Mexico. One facility in the immediate area is the NOVELIS manufacturing plant which is located approximately three miles southwest of the site on Route 1. An electrical generating facility has been constructed adjacent to the NOVELIS manufacturing plant.

The public institutions, aside from the schools and churches, within the 10-mile Plume Exposure EPZ of the site are a hospital and a college in the city of Oswego. There are no public institutions within five miles of the site.

A detailed listing of special facilities in Oswego County within the 10-mile Plume Exposure EPZ is presented in the "Oswego County Radiological Emergency Response Plan."

1.5 **Population**

The total 2016 population of the plume exposure pathway EPZ is 41,049. (This data is from 2010 census data as updated in 2016 and is discussed in EP-AA-1014, Addendum 2, Evacuation Time Estimates.) The population density of the immediate area surrounding the site is quite low, with the exception of the city of Oswego whose population in 2015 was 17,787 and the Village of Mexico, located approximately nine miles from the site, which contains about 1,574 residents. According to the 2011 Residence Census performed for the Radiological Environmental Monitoring Program, the nearest permanent resident is on Lake Road, about 0.7 miles east-southeast of the plant. The population distribution within 10 miles of the site is presented in Figure 1.4.

1.6 **Figures, Forms and Attachments**

Figure 1.1 JAFNPP Fenced Area Map

Figure 1.2 Plume Emergency Planning Zone (10 Mile Radius)

Figure 1.3 Ingestion Emergency Planning Zone (50 Mile Radius)

Figure 1.4 Population Distribution by Emergency Response Planning Area

Figure 1.5 Combined NMPNS/JAFNPP Site Map

Section 2: Organizational Control of Emergencies

JAFNPP has established an emergency response organization to respond to hostile actions and radiological emergencies. That organization includes on-shift personnel, additional plant personnel who may be offsite, other JAFNPP personnel, local services support, and private organizations support. The interfaces among the various emergency organizations are shown in Figure 2-1. The following sections describe in detail the JAFNPP plant and corporate organization and identify the interaction of the total emergency response organization. **Note that the Onsite and Minimum Staff Emergency Response Organization is defined in EP-AA-1000.**

2.1 Normal Operating Organization

The James A FitzPatrick Nuclear Power Plant (JAFNPP) organization for normal operation is described in OP-AA-20, Conduct of Operations Process Description, which is consistent with the JAFNPP - specific On Shift Staffing Analysis. The typical minimum shift crew consists of:

- 1 Shift Manager (SRO)
- 1 Control Room Supervisor (SRO)
- 1 Field Support Supervisor (FSS)/Shift Technical Advisor (STA)*
- 3 Senior Nuclear Operator (RO)
- 6 Nuclear Plant Operators (NPO)-covers Fire Brigade member, AOP-43 and E-Plan Communicator requirements
- 1 Radiation Protection Technician (Health Physics)
- 1 **Shift Dose Assessor**

Security Personnel in accordance with Security Plan

* (STA responsibilities may lie with a different member of the Control Room staff. The STA function is not required in modes 4 and 5.)

2.2 Offsite Support Organizations

2.2.1 Local Services Support

The nature of an emergency may require the augmentation of onsite response groups by local services, personnel and equipment. Support from the following local organizations may be obtained:

- Oswego Hospital
- Oswego County Sheriff
- University Hospital in Syracuse
- The City of Oswego (Fire Department)
- Oswego County E-911 Center (Fire Department)
- Specific methods for notification of these organizations are contained in Emergency Plan Implementing Procedures.

JAFNPP may obtain emergency response support from various private organizations. These organizations and the support they may provide are:

- A. Nine Mile Point Nuclear Station - Will provide use of laboratories, equipment and personnel for radiological monitoring, decontamination, backup communications, and personnel to assist in recovery operations.
- B. R.E. Ginna Nuclear Power Plant - Will provide use of laboratories, equipment and personnel for radiological monitoring, backup communications, and personnel to assist in recovery operations.
- C. General Electric- Will provide technical support and personnel.

2.3 Coordination with Participating Government Agencies

2.3.1 State and Local Agencies

This section identifies the principal state and local government agencies having action responsibilities for radiological emergencies in the vicinity of the JAFNPP. The radiological emergency response plans of these agencies describe their respective responsibilities, authorities, capabilities and emergency functions, and are included as part of this Plan. The following is a summary of the provisions for preparedness and response to radiological emergencies by each organization, as well as the primary and alternate methods of emergency notification.

- A. State Office of Emergency Management (SOEM) The SOEM is the lead state agency for offsite coordination and response. SOEM coordinates the development of radiological emergency plans. The New York State Emergency Plan received Federal approval on February 1, 1985 and is titled "New York State Radiological Emergency Preparedness Plan." See Appendix D for the locations of plan copies.

The New York State plan includes provisions for:

- Planning and coordination with local, state, Canadian and federal authorities.
- Initial response to notification by JAFNPP.
- Alert and warning of local political subdivisions.
- Evacuation and other protective measures for local populations.
- Emergency services. Situation analysis.
- Declaration of a "State of Emergency" and provision of state resources to support protective response actions.

- B. Oswego County Emergency Management Office (OCEMO)

The OCEMO is the lead local government agency for coordination and response. The OCEMO emergency plan titled, "Oswego County Radiological Emergency Preparedness Plan" received Federal approval on February 1, 1985 and the locations of plan copies are contained in Appendix E.

physicist, all cross-trained in the details of managing a radiation emergency.

Response teams are equipped with state-of-the-art medical equipment that can be transported to the site or used in their facility in Oak Ridge, Tenn.

Capabilities include:

- medical and radiological triage
- decontamination
- diethylenetriaminepentaacetic acid (DTPA) and Prussian Blue therapy for specific radiological materials
- diagnostic and prognostic assessments of radiation-induced injuries
- biological and radiological dose estimates by methods that include cytogenetic analysis, bioassay, and in vivo counting

C. Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency has the lead responsibility for all offsite nuclear emergency planning and response. This agency is charged with establishing policy for and coordinating all civil emergency planning and assistance functions for executive agencies.

D. Nuclear Regulatory Commission (NRC)

The U.S. Nuclear Regulatory Commission is responsible for verifying that appropriate emergency plans have been implemented and for conducting investigative activities associated with a radiological emergency. An NRC Response Team will offer assistance during an emergency. Estimated time of arrival is within 3 hours. The Agency Procedures for the NRC Incident Response Plan (NUREG-0845) describes the functions of the NRC during an incident and the kinds of actions that comprise the NRC response.

2.4 **Administrative and Logistics Support**

During the response to a radiological emergency, it may be necessary to supplement the Company's resources and/or provide response personnel with necessary support. Arrangements for this support which includes: the means and sources for obtaining food, lodging, sanitation, office supplies, temporary offices, communications equipment, and vehicles in support of an extended or augmented emergency response. This will be made by the Company Corporate Staff.

2.5 **Figures, Forms, and Attachments**

FIGURE 2-1 Emergency Organization interface

FIGURE 2-2 Emergency Staffing – On Shift Response Organization

the collection and analysis of airborne samples for gross and iodine radioactivity, and the collection of liquid samples.

Equipment is also provided for post-accident reactor water sampling. For details of the specific type and quantities of equipment contained in each kit see inventory procedure SAP-2, EMERGENCY EQUIPMENT INVENTORY.

4.2.2.2 Out-of-plant Surveys

Out-of-plant survey teams may be dispatched if releases of radiation have occurred, or to verify that releases above technical specifications are not occurring. The Environmental Coordinator (EOF), or designee, will notify, brief, and dispatch the survey teams. The dispatching and direction of survey teams to designated locations (see Figures 4.5 and 4.8) and the performance of out-of-plant surveys will be performed in accordance with EP-AA-112-500, Emergency Environmental Monitoring.

Out-of-plant survey teams will (if possible), be composed of a team leader and team member. The teams will report to and be dispatched from the Technical Support Center or the Emergency Operations Facility. Emergency survey kits are maintained for use by the out-of-plant survey teams. **JAF will share the Out-of-Plant Survey Responsibilities with the Nine Mile Point Nuclear Station. The Out-of-Plant teams are available and trained to respond to an event at either station.**

The out-of-plant survey teams have the capability and equipment to collect environmental and emergency TLD/DLR (Dosimeter of Legal Record), filter media from the environmental air samplers, water, milk, soil, vegetation, and snow samples. The field teams can also take direct radiation surveys and collect and analyze in the field, airborne samples for gross and iodine radioactivity. For details of the specific type and amount of equipment contained in the out-of-plant survey kits see SAP-2, EMERGENCY EQUIPMENT INVENTORY.

The field assessment of airborne samples will be reported back to the EOF where the Dose Assessment Coordinator or RPM will use the data for dose assessment. Other environmental media will be transported to an Environmental Lab for analysis.

One type of radiological data which the onsite and offsite survey teams will be collecting to aid in dose assessment is airborne radioiodine concentrations. Monitoring is accomplished by the use of portable air sampling pumps equipped with a particulate filter and silver zeolite cartridge. The particulate filter and silver zeolite cartridge can be analyzed in a low background area using a count rate meter and mini-scaler for determination of total radioiodine. The silver zeolite cartridges have an iodine retention in excess of 99% while retaining only traces of

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Emergency Plan Training for Licensed Operators and Shift Technical Advisors	Any personnel not listed above who are assigned to a position that requires a valid USNRC Operator License, or who are designated as STAs.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of Emergency Plan training for Licensed Operators and STAs shall be to ensure the capability for immediate response, assessment, and the implementation of measures to prevent or mitigate the consequences of emergencies.
Severe Accident Management Training	Designated Staff	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of SAM training shall be to ensure the capabilities for coordination, and assumption of responsibilities of actions associated with Severe Accident Operations Guidelines.
Emergency Plan Training for Non-Licensed Operators	Non-Licensed Operators	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of Emergency Plan training for Non-Licensed Operators shall be to ensure the capability for immediate response by conducting measures to prevent or mitigate accident conditions.
Emergency Communications	Designated Primary and Alternates: a. ENS Communicator b. State/Local Communicators (EOF) c.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for emergency communicators shall be to review appropriate Implementing Procedures, communications equipment and messages, including Incident Command System (ICS) concepts, position titles and terminology.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Radiological Assessment	Designated Primary and Alternates: a. Radiological Protection Manager (EOF) b. c. Dose Assessment Coordinator (EOF)	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for personnel performing radiation monitoring and analysis duties will include downwind and/or in plant radiation monitoring and sampling Implementing procedures, including Incident Command System (ICS) concepts, position titles and terminology.
Radiological Controls and Surveys during Emergencies	Designated Primary and Alternates: a) In-Plant Radiological Controls and Downwind Survey Teams b) RP Technicians c) Radiation Protection / d) Offsite Monitoring Team	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for personnel performing radiation monitoring and analysis duties will include downwind and/or in plant radiation monitoring and sampling Implementing Procedures, including Incident Command System (ICS) concepts, position titles and terminology.
Emergency Access Control, Evacuation and Accountability	Security personnel assigned responsibilities for Emergency Plan function, and Local Law Enforcement Officials.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Training and retraining requirements are outlined in the Exelon Fleet Nuclear Security Training and Qualification Plan, including Incident Command System (ICS) concepts, position titles and terminology.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Search and Rescue/First Aid Response	Plant Fire Brigade members.	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Designated members will receive training as appropriate in basic patient care and treatment. Members will also be instructed on the availability of onsite medical treatment supplies and equipment; communication systems; access controls radiological hazards; and roles, interfaces and responsibilities with local fire/medical support personnel, including Incident Command System (ICS) concepts, position titles and terminology. and to provide effective search and rescue capabilities for missing, trapped or injured personnel in an emergency.
Damage Control / Repair Teams personnel	Designated Primary and Alternates: b. OSC Director c. Mechanics d. Electricians e. Instrument and Control Technicians f. Electrical/I & C Lead g. Mechanical Lead	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	Position-related training provides the qualification for job functions of the listed personnel and, as such, special training in these functions, other than appropriate emergency plan and procedures training, is not required.

Figure 6.1 - Emergency Response Training (continued)

TITLE/FUNCTION	ASSIGNED PERSONNEL	FREQUENCY	TRAINING OBJECTIVE
Full Augmentation ERO as defined in EP Implementing Procedures	Designated ERO	Before assuming position, Once per calendar year not to exceed 18 months between training sessions thereafter.	The objective of training for Full Augmentation staff shall be to review ERO Position Checklists, and appropriate Implementing Procedures.
Onsite Fire Fighting Personnel	a. Fire Brigade members and Supervisors as specified in the Fire Protection Procedures Manual	Once per calendar year not to exceed 18 months between training sessions.	Develop well-trained fire brigade whose actions minimize injuries, property loss and damage and lost generation time.
Medical Support Personnel and Offsite Fire Fighting Personnel	Offsite Fire Departments, Ambulance and Hospital Personnel.	Annually	Designated members will receive training as appropriate in basic patient care and treatment. Members will also be instructed on the availability of onsite medical treatment supplies and equipment; communication systems; access controls radiological hazards; and roles, interfaces and responsibilities with local fire/medical support personnel, including Incident Command System (ICS) concepts, position titles and terminology.
COMMUNICATION	Function of Communications link to State and Local Governments	Monthly	Plant NY State Oswego Co.

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
A.3	Written agreements referring to concept of operations	Section 2.2 Section 4.1.2 Section 4.5.3 Section 4.5.4 Section 6.5.2
A.4	Provisions for 24-hour operations/continuity of resources	EP-AA-1000, Section B Section 2.2 Section 2.4
B.1	Onsite Emergency Organization	EP-AA-1000, Section B Appendix 5 A
B.2	Designation of Emergency Coordinator	EP-AA-1000, Section B Appendix D
B.3	Emergency Coordinator - line of succession	EP-AA-1000, Section B Section 3.7.1 Appendix D
B.4	Functional responsibilities of Emergency Coordinator	EP-AA-1000, Section B EP-AA-1000, Appendix 5
B.5	Titles and major tasks of emergency positions	EP-AA-1000, Section B EP-AA-1000, Appendix 5
B.6	Interfaces between and among emergency organizations - block diagram	Figure 2-1
B.7	Augmentation of plant staff	EP-AA-1000, Section B Appendix 5
B.7.a	Logistics support	Section 2.4 Section 3.7
B.7.b	Technical support	Section 3.7 Figure 3-3
B.7.c	Management interface with governmental authorities	Section 2.2 Section 2.3
B.7.d	Release of information to news media	EP-AA-1000, Section B Section 3.7 Appendix H

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
B.8	Contractor and private organization assistance / staff augmentation	Section 2.2.2 Section 2.2.3 Appendix C Appendix F
B.9	Emergency services provided by local agencies	Section 2.2.2 Section 4.5 Appendix C
C.1.a	Incorporation of Federal response capability into Plan - request for	Section 2.3.2 Section 4.1.2
C.1.b	Federal resources expected	Section 2.3.2 Appendix C
C.1.c	Resources to support Federal response	Appendix N
C.2.a	Offsite EOF representative	N/A*
C.2.b	Licensee representative at offsite locations	EP-AA-1000, Section B
C.3	Identification of radiological laboratories	Section 2.2.3 Section 4.2.2.2 Section 5.3.1 Section 5.3.2
C.4	Identification of organizations to provide assistance	Section 2.2.3 Appendix C Appendix F
D.1	Establishment of emergency classification/emergency action	Section 3.1
D.2	Initiating conditions for postulated accidents in FSAR	Section 3.1 Section 3.2
D.3	State/local emergency	N/A*
D.4	Offsite procedures providing emergency actions	N/A*

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
H.3	Establishment of EOC for response functions	N/A*
H.4	Provisions for timely activation and staffing of facilities	EP-AA-1000, Section B Section 4.1.1 Section 5.1
H.5.a	Identification of geophysical phenomena monitors	Section 5.3.3.3 Section 5.3.3.7
H.5.b	Identification of radiological monitors	Section 4.5.1 Section 4.5.2 Section 5.3.3.1 Section 5.3.3.8
H.5.c	Identification of process monitors	Section 5.3.3.9
H.5.d	Identification of fire detectors	Section 5.3.3.2
H.6.a	Acquisition of data from geophysical phenomena monitors	Section 5.3.3.3 Section 5.3.3.7
H.6.b	Acquisition of data from radiological monitors	Section 4.5.1 Section 5.3.3.1 Section 5.3.3.4 Section 5.3.3.5 Section 5.3.3.6
H.6.c	Acquisition of data from laboratory facilities	Section 5.3.1 Section 5.3.2
H.7	Provisions for offsite monitoring equipment	Section 4.2.2.2 Section 5.3.3.8
H.8	Provisions for meteorological instrumentation and procedures	Section 5.3.3.7
H.9	Provisions for onsite Operations Support Center	Section 5.1.3
H.10	Provisions to inspect, inventory, and operationally check equipment	Section 6.6
H.11	Identification of emergency equipment	Appendix I

NUREG-0654 Section	Evaluation Criteria	JAFNPP EMERGENCY PLAN
J.10.a	Inclusion of maps showing evacuation routes, monitoring locations, and relocation centers	Figure 4.2 Figure 4.9 Figure 5.2 Figure 5.3 Figure 5.4 Figure 5.6 Appendix H
J.10.b	Inclusion of maps showing population distribution around the facility	Figure 1.4 Figure 4.3 Appendix K
J.10.c	Means for notifying all segments of the population	Section 5.2.8 Appendix H
J.10.d-l	State/local plans to implement various protective measures	N/A*
J.10.m	Basis for choice of recommended protective actions	Section 4.4.2
J.11	State protective measures for ingestion pathway	N/A*
J.12	State/local plans for registration and monitoring of evacuees	N/A*
K.1.a-g	Establishment of onsite exposure guidelines consistent	Section 4.4.1 Section 4.5.1 Figure 4.1
K.2	Onsite radiation protection program to be implemented during emergencies	EP-AA-1000, Section B Section 4.4.1.4 Section 4.5.1
K.3.a-b	Provisions for 24-hour capability to determine emergency personnel doses	Section 4.5.1
K.4	State/local decision chain for authorizing exposures in excess of EPA PAGs	N/A*
K.5.a	Specification of action levels for decontamination	Section 4.5.2
K.5.b	Means for radiological decontamination of emergency personnel	Section 4.5.2 Section 5.6

License Amendment Request

ATTACHMENT 3C

**Assessment of James A. FitzPatrick ERO Minimum Staff
Positions Removed**

License Amendment Request

Attachment 3C

Assessment of James A. FitzPatrick ERO Minimum Staff Staff Positions Removed

From the Emergency Plan

1.0 SUMMARY DESCRIPTION

This enclosure provides a summary Table of the Emergency Response Organization (ERO) positions that are being removed from the Emergency Plan along with an assessment of their respective Emergency Plan tasks as defined in the Emergency Plan. The duties of the ERO positions being relocated to Emergency Plan Implementing Procedures (EPIPs) were reviewed against the NUREG-0654 guidance (both Revision 1 and draft Revision 2), and the station Emergency Plan. Each relocated ERO position was analyzed to ensure key tasks of the position are retained within the Emergency Plan and performed by Minimum Staff ERO members. The tasks were also evaluated against the NUREG-0654 guidance to ensure regulatory requirements were maintained.

The Table is arranged in columns as described below:

Facility: This column identifies the affected Emergency Response Facility

MCR – Main Control Room

TSC – Tech Support Center

OSC – Operations Support Center

EOF – Emergency Operations Facility

JIC – Joint Information Center

Current ERO Position: This column identifies the ERO position title. Each ERO position is also identified with a unique abbreviation for reference throughout the table. For example, MDCC is for Main Control Room Damage Control Communicator.

Current E-Plan Minimum Staff: This column identifies those positions that are currently considered Minimum Staff in the current approved Emergency Plan, but are being reassigned as Full-Augmentation (i.e., Yes/No).

Tasks Defined by Station Emergency Plan: This column identifies the specific position tasks identified in the Emergency Plan and EP Implementing Procedures. Each task is identified with a unique task ID number for quick reference throughout the table.

Task Disposition (Eliminated/Reassigned To): This column identifies the disposition of those tasks assigned to a ERO position under this License Amendment Request. Each ERO task was evaluated and dispositioned as either Relocated to an EPIP or Reassigned to a Minimum Staff Position. Tasks that are reassigned designate the ERO member receiving the task.

Justification / Implementing Action: This column provides a conclusion as to why this change is acceptable. In some cases, for tasks not being reassigned, this column provides an action needed when the change is implemented.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	Technical Manager	Yes	Accumulate, tabulate and evaluate data on plant conditions.	Relocate to EP Implementing Procedure	Data evaluation support Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Evaluate plant parameters during an emergency to determine the overall plant condition.	Relocate to EP Implementing Procedure	Data evaluation support Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Coordinate core damage assessment activities.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. The Min Staff Core Thermal/Hydraulic Engineer has responsibility for Core Damage Assessment Activities. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Identify data points and control parameters that the Operations staff should monitor.	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure that current and adequate technical information is depicted on status boards	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			E-TTM6 - Identify and direct staff in the development of special procedures needed to effect long-term safe shutdown or to mitigate a release.	Relocate to EP Implementing Procedure	Managing Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Supervise the total onsite technical staff effort.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Act as the TSC liaison with state and appropriate NRC Site Team representatives.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Assist the Radiation Protection Manager for onsite radiological/technical matters.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist the Station Emergency Director in evaluating plant based PARs (prior to Corporate Emergency Director accepting command and control) and changes in event classification.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Supervise the activities of the TSC Technical Communicator.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assume the duties and responsibilities of an Evaluator when transition to Severe Accident Management Guidelines (SAMG) is initiated and supervise the activities of the SAMG Evaluator Team	Relocate to EP Implementing Procedure	SAMG actions are removed from Table B-1
TSC	Maintenance Manager	Yes	Direct the total onsite maintenance and equipment restoration effort.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. The Minimum Staff OSC Director also has responsibility for the maintenance and equipment restoration efforts until the Maintenance Manager is staffed as Full Augmentation. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Request additional equipment in order to expedite recovery and restoration.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Supervise the activities of the OSC Director and the TSC Damage Control Communicator.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure the Operations Manager is informed of OSC staffing utilization and activities.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			In coordination with the Operations Manager, determine the priority assigned to OSC activities.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. The Minimum Staff Operations Manager and OSC Director maintain responsibility for setting priorities and assigning OSC activities. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure adequate staffing of the OSC.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist in rescue operations.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Identify required procedures that need to be written or implemented in support of the response efforts.	Relocate to EP Implementing Procedure	Support Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
TSC	TSC Director	Yes	Verify that qualified individuals are filling Communicator positions in the Control Room, TSC and OSC.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Supervise the activities of the Logistics Coordinator and state/local Communicator.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure that communications are established with appropriate parties as directed by the Station Emergency Director	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure that all required notifications to offsite governmental agencies (state/local and NRC) are timely and accurate.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Act as the Exelon Nuclear Liaison to any NRC Site Team Representatives.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure that the NRC Site Team Representatives are directed to their appropriate counterparts.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist the Corporate Emergency Director in the acquisition of information for off-site agency updates.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Record and relay inquiries to the Station Emergency Director. In addition, record responses to such inquiries prior to transmission.	Relocate to EP Implementing Procedure	Record Keeping Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist the Station Emergency Director in maintaining proper records.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
EOF	EOC Communicator	Yes	Coordinate and dispatch EOC Liaisons as needed or requested.	Relocate to EP Implementing Procedure	Coordination Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Establish and maintain periodic contact with each location where Exelon Nuclear EOC Liaisons have been dispatched.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure EOC Liaisons are provided event information and notifications	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Ensure that the Logistics Manager is made aware of issues and questions raised by offsite agencies and then relay the replies to these requests.	Relocate to EP Implementing Procedure	Supervisory Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
EOF	State Liaison	Yes	Monitor and report state EOC activities to the EOF.	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Conduct briefings and answer questions as requested.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist Emergency Public Information personnel in rumor control and media monitoring.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
EOF	County Liaison	yes	Monitor and report County EOC activities to the EOF	Relocate to EP Implementing Procedure	Monitoring Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Conduct briefings and answer questions.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ERO STAFFING ASSESSMENT MATRIX

Facility	Current ERO Position	Current E-Plan Min Staff	Tasks defined by Station Emergency Plan	Task Disposition	Justification / Implementing action
			Provide simplified explanations to EOC personnel of technical details distributed through approved channels.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist with confirmation/verification of information distributed through approved channels.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Provide media at the EOC with approved Exelon Nuclear press releases.	Relocate to EP Implementing Procedure	Communication Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.
			Assist Emergency Public Information personnel in rumor control and media monitoring.	Relocate to EP Implementing Procedure	Assist Task - Position provides support for Min Staff, but task does not directly accomplish EP Function, major task or planning standard/element. As such, task can be managed in an EPIP and staffed as Full Augmentation upon an Alert ECL.

ENCLOSURE 4

Summary of Regulatory Commitments

License Amendment Request

ENCLOSURE 4

Summary of Regulatory Commitments

SUMMARY OF REGULATORY 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 Drill at one of Exelon's stations to demonstrate that no loss of EP function will result due to the proposed changes in the ERO. The drill will include each of the Emergency Response Facilities described in the Emergency Plan (i.e., MCR, TSC, OSC, EOF and JIC).	Prior to implementation of approved license amendment.	Yes	No

ENCLOSURE 5

Information Related to Review of
Proposed Changes by the States

License Amendment Request

ENCLOSURE 5

Information Related to Review of Proposed Changes by the States

State of Maryland Correspondence

From: [Kate Hession](#)
To: [Schmidt, Sara M:\(GenCo-Nuc\)](#)
Cc: [Geoffrey Donahue -MDE-](#); [Fehring, Glenn R:\(GenCo-Nuc\)](#); [Walker, Douglas H:\(GenCo-Nuc\)](#); [Elizabeth Webster](#)
Subject: [EXTERNAL] Re: CCNPP ERO Staffing License Amendment Request
Date: Thursday, June 21, 2018 3:23:19 PM

Sara,

Thank you for follow-up with our other questions. MEMA is fine with the proposed changes but we do request that CCNPP be selected as the station to conduct the confirmatory exercise that will be used to demonstrate no loss of EP function.

We thank you for the opportunity to comment.



Kate Hession
Deputy Executive Director
Chief Operating Officer
Maryland Emergency Management Agency
5401 Rue Saint Lo Drive
Reisterstown, MD 21136
kate.hession@maryland.gov
Office: 410-517-3602
24/7 MJOC: 410-517-3600

[Click here to complete a three question customer experience survey.](#)

On Wed, Jun 13, 2018 at 9:45 AM, Schmidt, Sara M:(GenCo-Nuc)
<Sara.Schmidt@exeloncorp.com> wrote:

Good morning Kate and Geoff,

I am filling in for Glenn Fehring while he is out on vacation. Similar to PBAPS, CCNPP is developing a License Amendment Request to align their station Emergency Response Organization with the draft NUREG 0654 Revision 2 guidance. The NRC would like us to share the changes with the affected states prior to submittal and obtain and address any comments you may have.

I have been asked to provide you with this attached draft copy of the License Amendment Request for CCNPP and to request an email or letter acknowledging that you had the opportunity to review and provide any comments. If you have no comments, please let me know. I have attached a copy of our concurrence acknowledgements for PBAPS for your reference.

If possible, we are looking for a response by Monday, June 25th to support our NRC submittal date. If you have any questions, please feel free to reach out to myself or Doug Walker (copied).

Thank you,

Sara Schmidt

Emergency Preparedness Specialist



200 Exelon Way | Kennett Square, PA 19348

Mobile: 570.244.7954 | Office: 267.533.1426

State of New York Correspondence

July 25, 2018

Mr. Douglas Walker

Exelon Corporate Sr. Emergency Preparedness/Security Regulatory Analysis

Kennett Square, PA

Mr. Walker,

Doug,

The State of New York Division of Homeland Security & Emergency Services – Office of Emergency Management Radiological Emergency Preparedness Section (DHSES OEM REP) has reviewed the Exelon James A. FitzPatrick and Nine Mile Point power plant proposed License Amendment Request (LAR); regarding the proposed Emergency Staffing changes at Exelon James A. FitzPatrick and Nine Mile Point power plants during a declared event.

New York State DHSES OEM REP Section acknowledges the changes as proposed by Exelon Corporate for the James A. FitzPatrick and Nine Mile Point power plants.

Theodore J. Fisch

A handwritten signature in cursive script that reads "Theodore J. Fisch".

NYS DHSES OEM REP Section Chief

From: [Gillard, Julie E:\(GenCo-Nuc\)](#)
To: [Walker, Douglas H:\(GenCo-Nuc\)](#)
Subject: Fwd: [EXTERNAL] License Amendment Response
Date: Tuesday, July 03, 2018 2:19:41 PM

From: Gillard, Julie E:(GenCo-Nuc)
Sent: Tuesday, July 3, 2018 2:19:26 PM
To: Dale Currier
Cc: Cathleen Palmitesso; Cheryl Widay; Terry Bennett; Renee Fox
Subject: Re: [EXTERNAL] License Amendment Response

Thanks to all of you.

From: Dale Currier <Dale.Currier@OswegoCounty.com>
Sent: Tuesday, July 3, 2018 11:46:10 AM
To: Gillard, Julie E:(GenCo-Nuc)
Cc: Cathleen Palmitesso; Cheryl Widay; Terry Bennett; Renee Fox
Subject: [EXTERNAL] License Amendment Response

Good morning Ms. Gillard,

On behalf of the Oswego County Emergency Management Office (EMO) and our partner agencies I would like to thank you for arranging the presentation provided this morning by Exelon Corporate staff regarding the license amendments being requested for the three (3) nuclear facilities in Oswego County. The EMO requested the presentation in order to accurately and efficiently identify the specifics of the requested amendments changing the make-up and operation of the Exelon Emergency Response Organization (ERO) without having multiple people read through a 250+ page document. I just finished meeting with the Oswego County EMO staff who are directly tasked with handling the radiological and public information aspects of our assigned responsibilities as the Offsite Response Organization (ORO) to discuss the identified changes. We do not find that any of the proposed changes will negatively impact the County's responsibilities or response capabilities in effectively carrying out our assigned tasks as the Offsite Response Organization (ORO).

Therefore, please accept this email as our formal communication to Exelon that the Oswego County EMO has had the opportunity to review the proposed license amendment, attend a presentation from Exelon on the key points of the requested amendments which may impact the County's obligations, responsibilities, and radiological response operations, and to provide comments. We have no concerns, questions or comments regarding the proposed amendments.

On behalf of Oswego County we thank you for your cooperation and proactive assistance in helping us to understand the nature of the proposed amendments.

Please feel free to contact the EMO staff if you require additional information or input.

Sincerely,
Dale A. Currier, CEM