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June 29, 2015

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

Three Mile Island Nuclear Station, Unit 1
Renewed Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject: Response to March 12, 2012, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, Enclosure 5, Recommendation 9.3, Emergency Preparedness – Staffing, Requested Information Items 1, 2, and 6 - Phase 2 Staffing Assessment

References:

1. NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012
2. Exelon Generation Company, LLC's 60-Day Response to March 12, 2012 Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated May 14, 2012
3. NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," Revision 0, dated May 2012
4. NRC Letter to NEI, dated May 15, 2012, USNRC Review of NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," Revision 0, dated May 2012
5. NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012

On March 12, 2012, the NRC staff issued a letter entitled Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (Reference 1). Enclosure 5 of Reference 1 contains the specific Requested Actions, Requested Information, and Required Response associated with Recommendation 9.3 for Emergency Preparedness –

Staffing. In accordance with 10 CFR 50.54, "Conditions of licenses," paragraph (f), addressees were requested to submit a written response to the information requests within 90 days. In accordance with Reference 1, Enclosure 5, Exelon Generation Company, LLC (EGC) submitted an alternative course of action for performing the requested actions and providing the requested information (Reference 2). Enclosure 1 of Reference 2 described the alternative course of action and schedule for responding to the Emergency Preparedness – Staffing, Requested Information Items 1, 2, and 6.

Enclosure 1 to this letter provides the Three Mile Island Nuclear Station, Unit 1 Phase 2 Staffing Assessment Report. The Three Mile Island Nuclear Station, Unit 1 Phase 2 Staffing Assessment Report follows the assessment process methodology described in NEI 12-01 (Reference 3), which was endorsed by the NRC in Reference 4.

In accordance with Reference 2, Enclosure 1, this letter provides the response to the following information requests:

- Reference 1, Enclosure 5, Staffing, Requested Information Item 1
- Reference 1, Enclosure 5, Staffing, Requested Information Item 2
- Reference 1, Enclosure 5, Staffing, Requested Information Item 6

Response to Information Request in Reference 1, Enclosure 5, Staffing, Requested Information Item 1

It is requested that addressees provide an assessment of the onsite and augmented staff needed to respond to a large scale natural event meeting the conditions described in the Discussion section (Reference 1, Enclosure 5). This assessment should include a discussion of the onsite and augmented staff available to implement the strategies as discussed in the emergency plan and/or described in plant operating procedures. The following functions are requested to be assessed:

- ***How onsite staff will move back-up equipment (e.g., pumps, generators) from alternate onsite storage facilities to repair locations at each reactor as described in the Order regarding the NRC Near-Term Task Force (NTTF) Recommendation 4.2. It is requested that consideration be given to the major functional areas of NUREG-0654, Table B-1, such as plant operations and assessment of operational aspects, emergency direction and control, notification/communication, radiological accident assessment, and support of operational accident assessment, as appropriate.***
- ***New staff or functions identified as a result of the assessment.***
- ***Collateral duties (personnel not being prevented from timely performance of their assigned functions).***

Response

Enclosure 1 provides the Three Mile Island Nuclear Station, Unit 1 on-shift staffing assessment conducted pursuant to Reference 2. As described in Enclosure 1, Section 5, a detailed timeline and table-top review of the on-shift response to the postulated Beyond-Design-Basis External Event (BDBEE) Extended Loss of AC Power (ELAP) was performed based upon Operations review of the applicable station procedures. The focus of the timeline was to identify all resources, both operators and support organizations that would be required to execute each task for the Initial and Transition Phases using the FLEX mitigating strategies being implemented in accordance with NRC Order EA-12-049 (Reference 5).

The data from the Operations timeline, as well as the review of Radiation Protection and Chemistry resource requirements, was analyzed by applying the methodology specified in NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," to evaluate the capability of the minimum on-shift staffing complement to execute the actions specified for Operations, Radiation Protection and Chemistry and the required Emergency Plan responsibilities.

The tables describing the required minimum staffing, the Operations timeline, and the NEI 10-05 staffing analysis tables for Three Mile Island Nuclear Station, Unit 1 are included in Enclosure 1.

This Phase 2 Staffing Assessment concluded that the current shift staffing is sufficient to execute all required initial and transition phase tasks prior to the arrival of additional site personnel.

The staffing assessment provided in Enclosure 1 determined that no new staff or functions have been identified as a result of the Phase 2 assessment. The analysis did not identify any non-validated tasks or potential overlap tasks that would require a Time Motion Study to be performed.

The staffing assessment provided in Enclosure 1 determined that the existing on-shift staff is sufficient to implement the FLEX mitigating strategies for the postulated BDBEE ELAP event, while supporting performance of the required Emergency Planning duties without unacceptable collateral duties.

Response to Information Request in Reference 1, Enclosure 5, Staffing, Requested Information Item 2

Provide an implementation schedule of the time needed to conduct the onsite and augmented staffing assessment. If any modifications are determined to be appropriate, please include in the schedule the time to implement the changes.

Response

The Phase 2 Staffing Assessment results for Three Mile Island Nuclear Station, Unit 1 do not require any additional modifications or staffing changes.

Response to Information Request in Reference 1, Enclosure 5, Staffing, Requested Information Item 6

Identify changes that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all ac power, multi-unit event, including any new or revised agreements with offsite resource providers (e.g., staffing, equipment, transportation, etc.).

Response

As described in Enclosure 1, Section 7, the existing on-shift staff is sufficient to implement the existing mitigating strategies while supporting performance of the required Emergency Planning duties without unacceptable collateral duties. No staffing changes are required.

Exelon will be incorporating requirements for drills and exercises involving a BDBEE scenario in accordance with the guidance in NEI 13-06, Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events. The BDBEE requirements will be implemented in accordance with the implementation schedule for NEI 13-06.

This letter contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Ron Gaston at (630) 657-3359.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 29th day of June 2015.

Respectfully,



James Barstow
Director - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Enclosure:

1. Three Mile Island Nuclear Station, Unit 1 NEI 12-01 Phase 2 Staffing Assessment

U.S. Nuclear Regulatory Commission
Response to 50.54(f) Letter
NTTF Recommendation 9.3
June 29, 2015
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Enclosure 1

Three Mile Island Nuclear Station, Unit 1

NEI 12-01 Phase 2 Staffing Assessment Report

(28 Pages)

Enclosure 1

THREE MILE ISLAND NUCLEAR STATION

NEI 12-01 Phase 2

Staffing Assessment

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1.0 EXECUTIVE SUMMARY

This report provides the Phase 2 Staffing Assessment for Three Mile Island Unit 1 in response to the March 12, 2012, Nuclear Regulatory Commission letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." Specifically, this report provides Phase 2 information to address Staffing Request Numbers 1, 2, and 6 as committed in Exelon's 60-Day Response for Three Mile Island Station.

The Phase 2 Staffing Assessment was conducted using NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," an approach endorsed by the NRC in a Letter from D. L. Skeen (NRR) to Susan Perkins-Grew (NEI) dated May 15, 2012. This report includes the results of the Phase 2 Staffing Assessment as described in NEI 12-01. It also includes a discussion of any changes planned in response to the Phase 2 Staffing Assessment and the associated implementation schedule.

The Phase 2 Staffing Assessment concluded that the current minimum on-shift staffing as defined in EP-AA-1009, Exelon Nuclear Radiological Emergency Plan Annex for Three Mile Island Station, is sufficient to support the implementation of the current mitigating strategies for a Beyond Design Basis External Event (BDBEE) on Unit 1, as well as the required Emergency Plan actions, with no unacceptable collateral duties.

The Phase 2 Staffing Assessment was performed based upon the latest draft FLEX implementing procedures. These procedures will be validated and approved as part of the FLEX implementation for Three Mile Island Unit 1. The results of the procedure validation will be reviewed and compared with the timeline as documented in this report. If the results of the validation alter staffing requirements or the conclusions of this report, an updated report will be submitted within 60 days of startup from T1R21 (Fall 2015), consistent with the Three Mile Island FLEX full compliance submittal.

2.0 BACKGROUND

Response to Near-Term Task Force Recommendation 9.3, Staffing

In response to the Fukushima Dai-ichi accident, the U.S. Nuclear Regulatory Commission (NRC) issued a letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012. The information requests related to Emergency Preparedness (EP) were contained in Enclosure 5, "Recommendation 9.3: Emergency Preparedness" of this §50.54(f) Letter. Within this enclosure were two Requested Actions (Communications and Staffing). Both Requested Actions involve performance of an assessment. The action for the staffing assessment is summarized below:

It is requested that addressees assess their current staffing levels and determine the appropriate staff to fill all necessary positions for responding to a multi-unit event during a beyond design basis natural event and determine if any enhancements are appropriate given the considerations of Near-Term Task Force (NTTF) Recommendation 9.3.

The industry developed an alternative response based upon a phased approach to Recommendation 9.3. This approach was delineated in NEI 12-01 and was found acceptable by the NRC. In its letter to Susan Perkins-Grew, NEI, dated May 15, 2012, the US NRC stated, in part:

The staff has reviewed NEI-12-01, Revision 0, dated May 2012, and has found this guidance to be an acceptable method for licensees to employ when responding to the 10 CFR 50.54(f) letters regarding NTTF Recommendation 9.3.

The phased approach and associated schedule were submitted to the NRC under Exelon's letter, "60-Day Response to March 12, 2012 Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated May 11, 2012, and May 14, 2012 (corrected). In this letter, Exelon committed to the completion of a Phase 2 staffing assessment for Three Mile Island Station by four months prior to the T1R21 outage (Fall 2015).

- 1 Provide an assessment of the on-site and augmented staff needed to respond to a large scale natural event meeting the conditions described in the Discussion section. This assessment should include a discussion of the on-site and augmented staff available to implement the strategies as discussed in the emergency plan and/or described in plant operating procedures. The following functions are requested to be assessed:

How on-site staff will move back-up equipment (e.g., pumps, generators) from alternate on-site storage facilities to repair locations at each reactor as described in the order regarding the NRC Near-Term Task Force (NTTF) Recommendation 4.2. It is requested that consideration be given to the major functional areas of NUREG-0654, Table B-1, such as plant operations and assessment of operational aspects, emergency direction and control, notification/communication, radiological accident assessment, and support of operational accident assessment, as appropriate.

New staff or functions identified as a result of the assessment.

Collateral duties (personnel not being prevented from timely

performance of their assigned functions).

1B Provide on-site and augmented staffing assessment considering all requested functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessment]

2B Conduct the on-site and augmented staffing assessment:

The on-site and augmented staffing assessment considering all requested functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessment]

2D A schedule of the time needed to implement changes will be provided as follows:

Those associated with the Phase 2 staffing assessment.

6 Identify changes that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all AC power, multi-unit event, including any new or revised agreements with offsite resource providers (e.g., staffing, equipment, transportation, etc.).

6B Changes will be identified as follows:

Those associated with the Phase 2 Staffing Assessment.

This report for Three Mile Island Station provides the NEI 12-01 Phase 2 Staffing Assessment, as requested by the §50.54(f) letter, conducted using the guidance in NEI 12-01 and material from NEI 10-05.

Phase 2 Staffing Assessment

The industry is responding to multiple regulatory actions resulting from the recommendations contained in the Fukushima NTTF Report, as modified in related Commission Papers (SECY's) and Staff Requirements Memoranda (SRM). One of these actions, in particular, has the potential to impact emergency response staffing levels. This action is NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events EA-12-049 [the Order] which addresses Fukushima NTTF Recommendation 4.2.

In accordance with the Order, each licensee must develop new strategies for mitigating the effects of beyond-design-basis external events. To ensure accurate results, the staffing assessment for response functions related to NTTF Recommendation 4.2 must be based on the actions delineated in the procedures and guidelines developed in response to the Order. Once the site-specific actions associated with the new response strategies are defined (e.g., down to the

procedure or guideline step level), the staffing needed to perform these actions can be assessed with the necessary level of accuracy.

As requested, an implementation schedule for any modifications that are determined to be appropriate should be included with the Phase 2 staffing assessment.

This Three Mile Island Phase 2 Staffing Assessment Report provides the results of an assessment performed of the staffing necessary to implement actions that address the NRC Order Modifying Licensed with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049). The assessment was performed in conjunction with the development of procedures or guidelines that address the Order using the guidance provided in NEI 12-01.

3.0 EMERGENCY PLAN MINIMUM STAFFING

EP-AA-1009, Exelon Nuclear Radiological Emergency Plan Annex for Three Mile Island (TMI) Station, establishes the minimum on-shift staffing complement. The following table indicates the on-shift personnel necessary to perform the required emergency planning functions.

Position	Licensing Basis Reqt	E-Plan Function Area	Staffing Assessment Results
Shift Manager / Emer. Director	10 CFR 50.54(m)	Plant Operations & Safe Shutdown	1
Unit Supv (SRO)	10 CFR 50.54(m)	Plant Operations & Safe Shutdown	1
STA (SRO)	NEI 0654	Plant System Engineering	1
RO #1 (SSD)/(URO)	10 CFR 50.54(m)	Plant Operations & Safe Shutdown	1
	Fire Safe Shutdown		
RO #2 (SSD)/(ARO)	10 CFR 50.54(m)	Plant Operations & Safe Shutdown	1
	Fire Safe Shutdown		
RO #3	Fire Protection Program (Support FB)	Plant Operations & Safe Shutdown	1
EO #1 (SSD)/(AO#1)	Safe Shutdown	Plant Operations & Safe Shutdown	1
EO #2 (SSD)/(AO#2)	Safe Shutdown	Plant Operations & Safe Shutdown	1
Fire Brigade Leader	Fire Protection Program	Fire Fighting	1
Fire Brigade #1	Fire Protection Program	Fire Fighting	1
Fire Brigade #2	Fire Protection Program	Fire Fighting	1
Fire Brigade #3(AO#3)	Fire Protection Program	Fire Fighting	1
Fire Brigade #4/(AO#4)	Fire Protection Program	Fire Fighting	1
RP Tech #1	Emergency Plan	Radiological Assessment	1
RP Tech #2	Emergency Plan	Radiological Assessment	1
RP Tech #3	Emergency Plan	Radiological Assessment	1
Chem Tech	Emergency Plan	Radiological Assessment	1
EP Communicator/(I&C)	Emergency Plan	Notification and Communication	1
Mech Maintenance/(MM#1)	Emergency Plan	Repair & CA	1
I&C/Elec Maintenance/(EM#1)	Emergency Plan	Repair & CA	1
		TOTAL	20

4.0 BEYOND DESIGN BASIS EXTERNAL EVENT (BDBEE)

4.1 General Assumptions and Limitations

4.1.1 NEI 12-01 Assumptions Common to Both Assessments (Staffing and Communications)

1. A large-scale external event occurs that results in:
 - a. all on-site units affected
 - b. extended loss of AC power
 - c. impeded access to the units
2. Initially, all on-site reactors are operating at full power and are successfully shut down.
3. A Hostile Action directed at the affected site does not occur during the period that the site is responding to the event.
4. The event impedes site access as follows:
 - a. Post event time: 6 hours - No site access. This duration reflects the time necessary to clear road way obstructions, use different travel routes, mobilize alternate transportation capabilities (e.g., private resource providers or public sector support), etc.
 - b. Post event time: 6 to 24 hours - Limited site access. Individuals may access the site by walking, personal vehicle or via alternate transportation capabilities (e.g., private resource providers or public sector support).
 - c. Post event time: 24+ hours - Improved site access. Site access is restored to a near-normal status and/or augmented transportation resources are available to deliver equipment, supplies, and large numbers of personnel.

A staffing assessment may utilize a “no site access” end time of less than 6 hours and greater than or equal to 4 hours, if supported by a documented basis. This basis should include a discussion of the site-specific transportation-related resources and capabilities, and related supporting arrangements, which provide assurance that augmented staff would be available on the site starting at the time used in the assessment. These resources and capabilities could be provided by Company-internal, private or public sources (including vehicles and aircraft, such as helicopters from military and National Guard organizations). All arrangements with the anticipated service providers should be documented (e.g., Letter of Agreement, contract, etc.).

A staffing assessment may not utilize a “no site access” end time of less than 4 hours.

4.1.2 NEI 12-01 Assumptions for Staffing Assessment

1. Each licensee should determine a date for completing the Phase 2 staffing assessment; the assessment will be provided no later than 4 months prior to beginning of second refueling outage (as used within the context of NRC Order EA-12-049). This assessment will consider the requested functions related to Fukushima Near-Term Task Force (NTTF) Recommendation 4.2.

The industry will be responding to multiple regulatory actions resulting from the recommendations contained in the Fukushima NTTF Report, as modified in related Commission Papers (SECY's) and Staff Requirements Memoranda (SRM). One of these actions, in particular, has the potential to impact emergency response staffing levels. This action is NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events EA-12-049 [the Order] which addresses Fukushima NTTF Recommendation 4.2. A summary of the Order is provided below.

This Order requires a three-phase approach for mitigating beyond-design-basis external events. The initial phase requires the use of installed equipment and resources to maintain or restore the functions of core cooling, containment and spent fuel pool cooling. The transition phase requires providing sufficient, portable, on-site equipment and consumables to maintain or restore these functions until they can be accomplished with resources brought from off site. The final phase requires obtaining sufficient offsite resources to sustain those functions indefinitely.

In accordance with the Order, each licensee must develop new strategies for mitigating the effects of beyond-design-basis external events. To ensure accurate results, the staffing assessment for response functions related to NTTF Recommendation 4.2 must be based on the actions delineated in the procedures and guidelines developed in response to the Order. Once the site-specific actions associated with the new response strategies are defined (e.g., down to the procedure or guideline step level), the staffing needed to perform these actions can be assessed with the necessary level of accuracy.

Based on a review of the planned actions necessary to comply with the Order, an assessment of the staffing for the functions related to NTTF Recommendation 4.2 can be provided by 4 months prior to beginning of the second refueling outage (as used within the context of NRC Order EA-12-049). Licensees of single-unit sites should adhere to this submittal milestone.

As requested, an implementation schedule for any modifications that are determined to be appropriate should be included with the Phase 2 staffing assessment.

The Phase 2 staffing assessment is one component of an overall licensee work plan to support implementation of the requirements of the Order. As stated in the Order, all holders of operating licenses issued under Part 50 shall complete full implementation no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a, or December 31, 2016, whichever comes first. Full compliance shall include procedures, guidance, training, and acquisition, staging, or installing of equipment needed for the strategies.

4.1.3 Additional Assumptions for Minimum Staffing

On-shift personnel are limited to the minimum complement allowed by the site regulatory requirements (e.g., Emergency Plan and Security Plan) and commitments. This would typically be the on-shift complement present during a backshift, weekend, or holiday.

4.1.4 Additional Guidance for Staffing Assessment

Per NEI 12-01, Section 3.1, for purposes of assessing augmented staffing, it is assumed that the on-shift staff successfully performs all Initial Phase, and any Transition Phase, coping actions.

***Initial Phase** – Implementation of strategies that generally rely upon installed plant equipment.*

***Transition Phase** – Implementation of strategies that involve the use of portable equipment and consumables to extend the coping period, and maintain or restore the functions of core cooling, containment, and spent fuel pool cooling.*

4.1.5 NEI 10-05 Applicable Assumptions to Support Methodology

1. On-shift personnel can report to their assigned response locations within timeframes sufficient to allow for performance of assigned actions.
2. The on-shift staff possesses the necessary Radiation Worker qualifications to obtain normal dosimetry and to enter Radiologically Controlled Areas (but not high, locked high or very high radiation areas) without the aid of a Radiation Protection Technician.
3. It is assumed that personnel assigned to the major response area of Plant Operations & Safe Shutdown meet the requirements and guidance established by NRC regulations. Staff performance within this area is not evaluated as part of this assessment, unless a role/function/task from another major response area is assigned as a collateral duty.
4. Individuals holding the position of radiation protection or chemistry technician are qualified to perform the range of tasks expected of their position.

5. The task of making a simple and brief communication has minimal impact on the ability to perform other assigned functions/tasks, and is therefore an acceptable collateral duty for all positions. Examples include making a plant page announcement or placing a call for assistance to an offsite resource such as local law enforcement. This assumption does not apply to emergency notification to an Offsite Response Organization (ORO) or the NRC.
6. The task of performing a peer check has minimal impact on the ability to perform other assigned functions/tasks, and is therefore an acceptable collateral duty for all positions. Examples include performing a peer check on a recommended emergency classification or notification form for transmittal to offsite authorities.
7. The analyzed event occurs during off-normal work hours at a time when augmented Emergency Response Organization (ERO) responders are not at the site (e.g., during a backshift, weekend or holiday). The ERO augmentation time is based on the time of event declaration until the time of turnover of the function/responsibility. Specifically, any time needed by the augmenting ERO to acquire materials or prepare for turnover is accounted for. Facility activation includes the turnover of functions from the on shift staff. For purposes of this analysis, 360 minutes will be used as the time period for the conduct of on-shift ERO response actions.

Per NEI 10-05, the analysis methodology allows flexibility in the assignment of on-shift response functions and tasks, dependent upon the event or accident. For example, members of a fire brigade may be assigned other response duties if the event or accident does not include a fire. Likewise, a security officer might be assigned to perform offsite notifications during a DBA but not the DBT. For the purposes of this assessment, members of the fire brigade are utilized to perform actions during the initial and transition phases of the response.

4.2 Scope/Sequence of Events

4.2.1 Beyond Design Basis External Event (BDBEE): Station Blackout (SBO)

Per NEI 12-01, Section 2.2, a large-scale external event occurs that results in:

- All on-site units affected
- Extended loss of AC power
- Impeded access to the units

Initially, the unit is operating at full power and is successfully shut down.

- The unit experiences a loss of offsite power and a failure of all emergency AC power sources resulting in a Station Blackout (Loss of all AC power).

- The BDBEE occurs such that restoration of any AC power source is not possible before the arrival of the augmented ERO personnel. (e.g., 360 minutes)
- The event initially results in a Site Area Emergency based on EAL MS1, and a subsequent escalation to a General Emergency based on EAL MG1.

4.2.2 On-shift Response

The Three Mile Island Station Control Room is staffed with one Shift Manager (SM/SRO) providing Operations oversight, one Unit Supervisor (SRO) who directs the activities for the unit, a Shift Technical Advisor (STA) or Incident Assessor (IA), and three Reactor Operators (ROs).

During a plant transient, manual or automatic shutdown, the Control Room Supervisor directs implementation of response actions per applicable abnormal operating or emergency operating procedures. The STA/IA provides independent oversight and safety function status assessment. The Shift Manager (SM) provides independent oversight and is also the Emergency Director (ED) when plant conditions reach emergency action declaration criteria. The ED provides direction to execute the required Emergency Plan actions in accordance with the applicable Emergency Plan implementing procedures.

Non-licensed plant operators, on shift Radiation Protection and Chemistry technicians and other non-Security on-shift personnel will report to the control room for direction or direction will be provided to them via portable radio or other communications, as available.

For the Phase 2 Staffing Assessment, on-shift personnel respond to the initiating events in accordance with plant procedures.

The following procedures and documents support the event response:

- OP-TM-AOP-003, Earthquake
- OP-TM-AOP-004 Tornado/High Winds
- OP-TM-EOP-001, Reactor Trip
- OP-TM-EOP-012, Station Blackout
- OP-TM-322-901, Actions to Vent Main Generator Hydrogen
- OP-TM-864-901, SBO Diesel Generator (EG-Y-4) Operations
- OP-TM-424-901, Emergency Feedwater (EFW)
- OP-TM-424-902, EFW Alternate Inventory
- OP-TM-919-901, Energize 1P and 1S 480V ES SWGR from FX-Y-1A or FX-Y-1B
- OP-TM-919-903, Energize 1A ESV MCC and 1A Radwaste MCC from FX-Y-1A or FX-Y-1B
- OP-TM-919-906, DC Load Management (FSG-4)
- OP-TM-919-911, FSG-1 -Long Term RCS Inventory Control
- OP-TM-919-924, Pre-Operational Lineup for FX-P-2A or FX-P-2B
- OP-TM-919-931, Maintain fuel oil level in FX-T-3 using DF-P-1C or DF-P-1D

- OP-TM-919-952, FLEX Ventilation for Turbine Buildings.
- OP-TM-919-953, FLEX Ventilation for Intermediate Buildings.
- OP-TM-919-954, FSG-5 - Initial Assessment and Staging of Flex equipment
- EP-AA-112-100-F-01, Shift Emergency Director Checklist
- EP-AA-1009, Addendum 3, Emergency Action Levels for Three Mile Island (TMI) Station

5.0 ON-SHIFT STAFFING TASK ANALYSIS RESULTS

Three Mile Island personnel conducted a table-top review of the on-shift response to the postulated BDBEE and extended loss of AC power for the Initial and Transition Phases using the FLEX mitigating strategies. Resources needed to perform initial event response actions were identified from the Emergency Operating Procedures (EOPs), Abnormal Operating Procedures (AOPs), FLEX Support Guidelines (FSGs), or other supporting procedures.

Per NEI 12-01, Three Mile Island performed an assessment of the ability to execute the required EP functions using the methodology specified in NEI 10-05. Per NEI 10-05, the analysis is performed using five tables to evaluate the on-shift staffing and functions. The on-shift resources were entered in the appropriate tables (Attachment 1, Tables 2 and 3). Applicable RP and Chemistry tasks and the time required to perform expected emergency plan functions were documented in Attachment 1, Table 4. This information was documented on the applicable tables from NEI 10-05 located in Attachment 1 of this report. The Emergency Plan functions for the event were reviewed and assigned to the on-shift resource responsible for performance of the identified function and documented as per NEI 12-01 using the NEI 10-05 documentation (Table 5). Finally, the on-shift resources and their actions were summarized in Table 1 using the NEI 10-05 documentation process. This Phase 2 Staffing Assessment concluded that the current shift staffing is sufficient to execute all required initial and transition phase tasks prior to the arrival of additional site personnel.

The Operating tasks were assigned as shown in Table 5.1 below. None of these operating tasks require the use of the Shift Manager / Shift Emergency Director, STA, or the dedicated shift communicator. As such, no unacceptable collateral duties were identified. Refer to Attachment 1, NEI 10-05 Staffing Tables for Three Mile Island Station, for documentation of the on-shift staffing analysis results. The analysis did not identify any non-validated tasks or potential overlap tasks that would require a Time Motion Study to be performed.

Table 5.1: Three Mile Island Staffing Timeline

Time (Mins.) Position	0-15	15-30	30-45	45-60	60-75	75-90	90-105	105-120
Shift Manager	ED / Oversight Declare Alert MA1	ED / Oversight EAL MS1	ED / Oversight Contact NDO – SAFER support	ED / Oversight	ED / Oversight Contact EOF / Obtain TSO status Escalate to General Emergency MG1 based upon TSO status			
CRS	EOP-1, EOP-12	Evaluate ELAP	Perform FSG-5 – Initial assessments		Direct ELAP actions			
STA/IPS	Monitor plant	Monitor plant Confirm natural circ	Monitor plant – Assist in FSG-5 initial assessment		Monitor plant			
URO	IMAs EOP-1	Maintain Tave – MS-V-4A/B, Control EFW flow		Secure LO-P-6, Maintain Tave – MS-V-4A/B, Control EFW flow	Maintain Tave – MS-V-4A/B, Control EFW flow			
ARO	EFW per OP-TM-424- 901	Assigned OP-TM-919-901, Place EXT control PTL		Report to CT 322	OP-TM-919-901 - strip loads 1P/1S	OP-TM-919-901 – Rack out EE-1P-02-BK	OP-TM-919-901 – Rack out EE-1S-02-BK	OP-TM-919-901 – Close EE-1P-12-BK / EE-1S-12- BK
CRO	Start SBO per OP-TM- 864-901	Assigned OP-TM- 919-906 – Secure LO-P-9A/B, RCP DC LP		Report to CT 322	OP-TM-919-906 – Strip VBA	OP-TM-919-906 – XFER ICS Auto to ATB	Support OP-TM-919-901 actions	OP-TM-919-901 – Strip and align 1A and 1B ES MCC
PSS (AO1)		Close MU-V-99 if necessary	Walk-down Aux Building – 1A RDWST tank, Cable paths		OP-TM-919-911 – Line up FX-P-1A/B suction		OP-TM-919-911 – Line up FX-P-1A/B discharge	
PFB (AO2)	Report to SBO	Report to CT 322	Walk-down turbine building		Support OP-TM-919- 901	OP-TM-919-901 – Rack out EE-1P-02-BK	OP-TM-919-901 – Rack out EE-1S-02-BK	Report to CT 322
Sec SS (AO3)	Report to EFW	Support EFW operation / Walk-down Intermediate Building		Support EFW operations – Take manual control when backup bottles are depleted				
Sec FB (AO4)	Open VA-V-8 Close MS-V-7	Vent Main Generator H2	Vent Main Gen H2 – Admit CO2 Close MS-V-7					Report to FX-Y-1A/1B – Pre-start checks
Fire Brigade Leader	Report to Control Room	Control Room brief from CRS	Perform FSG-5 initial assessment		Report to CT 322 – Brief, direct, and monitor activities per OP-TM-919-954(FSG-5)			
Shift Communicator	Report to Control Room	Stat/Local and NRC notifications			Notifications transferred to EOF / Continue to support EOF notifications/communications			
FB1	Place work in safe condition	Report to AO central				Verify EE-MCC-1A-BK on 1P ES Open – Return to AO Central	OP-TM-919-903 – Connect FX Cable A – Weld A3 to A9	
FB2	Place work in safe condition	Report to AO central						Layout FLEX hose in DGB Room
RP1	Place work in safe condition	Report to AO central			FX-P-1A/B – Support PSS AO Lineup of suction/discharge			
RP2	Place work in safe condition	Report to AO central			OP-TM-919-924 – Start hose lineup for FX-P-2A/B			
Chem Tech 1	Place work in safe condition	Report to AO central				Verify EE-MCC-1A-BK on 1P ES Open – Return to AO Central	OP-TM-919-903 – Connect FX Cable A – Weld A3 to A9	
EM1								
MM1								
RP3								

Table 5.1: Three Mile Island Staffing Timeline

Time (Mins.) Position	120-135	135-150	150-165	165-180	180-195	195-210	210-225	225-240
Shift Manager	ED / Oversight - Maintain contact with EOF							
Control Room Supv	Direct ELAP actions							
STA/IPS	Monitor plant							
URO	Maintain Tave – MS-V-4A/B, Control EFW flow			Close MU-V-33A/B/C/D	Fill pressurizer to 100"			
ARO	OP-TM-919-901 – Strip/align 1A and 1B ESS MCC	Close EE-1P-12-BK2 (Power available)	Report to Control Room	Support Control Room operations				
CRO	OP-TM-919-901 – Strip/align 1A and 1B ESS MCC	Verify doors open for battery charger re-energization	Report to Control Room		Re-establish battery chargers			
PSS (AO1)	OP-TM-919-911 – Line up FX-P-1A/B discharge		OP-TM-919-903 - Verify weld cable; Report to FX-P-1A/B	Line up FX-P-1A/B; Establish communications with Control Room	Start FX-P-1A/B		OP-TM-919-924 – Final connection for FLEX feedwater	
PFB (AO2)	OP-TM-919-924 - Line up hoses for FX-P-2A/B			FX-P-2A/B available for use	Connect fuel oil hoses/Commence filling FX-T-3 as needed			
Sec SS (AO3)	Support EFW operations – Take manual control when backup bottles are depleted							
Sec FB (AO4)	Start FX-Y-1A or 1B - Line up breakers on FLEX panel	Monitor FX-Y-1A/B – Coordinate fill of FX-T-3 as necessary						
Fire Brigade Leader	Brief, direct, and monitor activities per FSG-5							
Shift Communicator	Notifications transferred to EOF / Continue to support EOF notifications/communications							
FB1	OP-TM-919-903 – Connect FX Cable A – Weld A3 to A9	OP-TM-919-903 – Strip loads on 1ESV, 1A RW, 1B RW	Go to CT 322 – Close 1P Unit 4C (Power available to 1A RDWST)	OP-TM-919-924 – Line-up FX-P-2A/D starter cable				
FB2		Layout FLEX Fuel Oil hose in 322 Turbine Building					Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953	
RP1	FX-P-1A/B – Support suction/discharge lineup							
RP2	Layout FLEX hose in DGB Building		Layout FLEX fuel oil hose in 322 Turbine Building					
Chem Tech 1	OP-TM-919-903 – Connect FX Cable A – Weld A3 to A9	OP-TM-919-903 – Strip loads on 1ESV, 1A RW, 1B RW			OP-TM-919-924 – Line-up FX-P-2A/D starter cable			
EM1								
MM1								
RP3								

Table 5.1: Three Mile Island Staffing Timeline

Time (Mins.) Position	240-255	255-270	270-285	285-300	300-315	315-330	330-345	345-360
Shift Manager	ED / Oversight - Maintain contact with EOF							
Control Room Supv	Direct ELAP actions							
STA/IPS	Monitor plant							
URO	Cooldown to 400 degs F (Estimated duration 5 hours)							
ARO	Support Control Room operations							
CRO	Report to Control Room Support Control Room operations / Support communications with EOF							
PSS (AO1)	Monitor FX-P-1A/B; Monitor Spent Fuel Pool level							
PFB (AO2)	Fill FX-T-3 as needed							
Sec SS (AO3)	Support EFW operations / Manual control when backup depleted							
Sec FB (AO4)	Monitor FX-Y-1A/B – Coordinate fill of FX-T-3 as necessary							
SMF	Report to CT 322 – Brief, direct, and monitor activities per FSG-5							
Shift Communicator	Notifications transferred to EOF / Continue to support EOF notifications/communications							
FB1	Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953							
FB2	Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953							
RP1	Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953							
RP2	Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953							
Chem Tech 1	Install forced ventilation for Control Building, Turbine Building, Intermediate Building per OP-TM-919-952/953							
EM1								
MM1								
RP3								

Note - Gray indicates unassigned time periods

6.0 CHANGES REQUIRED TO SUPPORT PHASE 2 STAFFING ASSESSMENT

6.1 Staffing Changes

This Phase 2 Staffing Assessment concluded that the existing on-shift staff is sufficient to implement the existing mitigating strategies, while supporting performance of the required Emergency Planning duties without unacceptable collateral duties. No staffing changes are required.

6.2 Emergency Plan and Procedure Changes

Per NEI 12-01, Section 3.10, the capability for responding to a beyond design basis external event does not need to be described in the emergency plan.

NEI 12-01 further states that a licensee should determine if any changes are necessary to documents describing the emergency response drill and exercise program. In particular, standard objectives and extent-of-play may need to be revised to clarify the expected demonstration of functions that are dependent upon the type of scenario event or accident (i.e., within or beyond design basis, and number of affected units).

Exelon will be incorporating requirements for drills and exercises involving a BDBEE scenario in accordance with the guidance in NEI 13-06, Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events.

7.0 CONCLUSION

This Phase 2 Staffing Assessment concluded that the current minimum on-shift staffing as defined in EP-AA-1009, Exelon Nuclear Radiological Emergency Plan Annex for Three Mile Island Station is sufficient to support the implementation of the current mitigating strategies for a Beyond Design Basis External Event (BDBEE), as well as the required Emergency Plan actions, with no unacceptable collateral duties.

8.0 ATTACHMENTS

8.1 Attachment 1, NEI 10-05 Staffing Tables for Three Mile Island Station.

9.0 REFERENCES

9.1 NEI 12-01, Rev 0, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities"

9.2 NEI 10-05, Rev 0, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities"

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- 9.3 NEI 13-06, "Enhancements to Emergency Response Capabilities for Beyond Design Basis Accidents and Events"
 - 9.4 EP-AA-1000, Exelon Nuclear Standardized Radiological Emergency Plan
 - 9.5 EP-AA-1009, Exelon Nuclear Radiological Emergency Plan Annex For Three Mile Island (TMI) Station
 - 9.6 NRC Letter "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012
 - 9.7 Exelon Generation Company, LLC Letter to NRC, "60-Day Response to March 12, 2012 Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated May 11, 2012 and May 14, 2012 (corrected)
 - 9.8 EA-12-049, NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012
 - 9.9 HU-AA-1081-F-15, Emergency Response Organization Fundamentals
 - 9.10 EP-AA-1009, Addendum 1, Three Mile Island Station On-shift Staffing Technical Basis
 - 9.11 Exelon Generation Company, LLC Letter to NRC, "Exelon Generation Company, LLC's (EGC) 90-Day Response to March 12, 2012 Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident; dated March 12, 2012 (Emergency Preparedness)," dated June 11, 2012
 - 9.12 NRC Letter to Susan Perkins-Grew, NEI, "U.S. Nuclear Regulatory Commission Review of NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," Revision 0, dated May 15, 2012

Attachment 1

NEI 10-05 Staffing Tables

For

Three Mile Island Station

NEI 12-01 Phase 2 Staffing Assessment

Attachment 1**NEI 12-01 Phase 2 On-shift Staffing Assessment (OSA)****1. Accident Summary:**

A Beyond Design Basis External Event results in a loss of all offsite AC power coincident with the trip of the unit. All station emergency diesel generators and the station blackout diesel fail to start.

2. Procedures Reviewed for Accident Response Include:

Refer to Section 4.2.2 of this report for a list of the applicable procedures.

Attachment 1

Three Mile Island Station

This OSA is applicable to Analysis NEI 12-01 Phase 2.

TABLE 1 – On-shift Positions

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS Required?
1.	Shift Manager / Shift ED	EP-AA-1009, Table 2-1	N/A	T2 L1 T5 L1 T5 L2 T5 L3 T5 L4 T5 L5 T5 L8 T5 L10	No	No
2.	Control Room Supv (SRO)	EP-AA-1009, Table 2-1	N/A	T2 L2	No	No
3.	STA (SRO)	EP-AA-1009, Table 2-1	N/A	T2 L3	No	No
4.	Unit Reactor Operator (RO #1) / URO	EP-AA-1009, Table 2-1	N/A	T2 L4	No	No
5.	Aux Reactor Operator (RO #2) / ARO	EP-AA-1009, Table 2-1	N/A	T2 L5	No	No
6.	RO #3	EP-AA-1009, Table 2-1	N/A	-	No	No
7.	AO #1 (SSD)	EP-AA-1009, Table 2-1	N/A	T2 L6	No	No
8.	AO #2 (SSD)	EP-AA-1009, Table 2-1	N/A	T2 L7	No	No
9.	Rad Pro Tech #1 (RP #1)	EP-AA-1009, Table 2-1	60	T4 L1	No	No
10.	Rad Pro Tech #2 (RP #2)	EP-AA-1009, Table 2-1	60	T4 L4	No	No
11.	Rad Pro Tech #3 (RP #3)	EP-AA-1009, Table 2-1	60	-	No	No
12.	Chem Tech	EP-AA-1009, Table 2-1	60	-	No	No

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS Required?
13.	Fire Brigade Leader	EP-AA-1009, Table 2-1	N/A	-	No	No
14.	Fire Brigade (AO #3)	EP-AA-1009, Table 2-1	N/A	-	No	No
15.	Fire Brigade (AO #4)	EP-AA-1009, Table 2-1	N/A	-	No	No
16.	Fire Brigade	EP-AA-1009, Table 2-1	N/A	-	No	No
17.	Fire Brigade	EP-AA-1009, Table 2-1	N/A	-	No	No
18.	Shift Communicator	EP-AA-1009, Table 2-1	N/A	T5 L6 T5 L9 T5 L13	No	No
19.	Maintenance (MM1)	EP-AA-1009, Table 2-1	N/A	-	No	No
20.	Maintenance (EM 1)	EP-AA-1009, Table 2-1	N/A	-	No	No
21.	Security	EP-AA-1009, Table 2-1	N/A	-	No	No

Notes:

1. The Shift Communicator can be filled by any available qualified individual who is not assigned STA, Fire Brigade, SSD or Shift Emergency Director.
2. Augmentation Elapsed Time - Performance of a staffing analysis requires use of an assumed response (arrival) time for members of the augmented ERO. This time is the maximum acceptable number of minutes elapsed between an emergency declaration and the arrival of an ERO position-holder at a location necessary to relieve an on-shift ERO member. Per NEI 10-05, step 3.2.2.2.c, this is only required to be entered for RP and chemistry.

Attachment 1
TMI

TABLE 2 – Plant Operations & Safe Shutdown Analysis NEI 12-01 Phase 2

One Unit - One Control Room Applicable to site unit(s) # 1
Minimum Operations Crew Necessary to Implement AOPs and EOPs, or SAMGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1	Shift Manager	Shift Manager	Ops Training Program
2	Unit Supervisor	Shift Supervisor Unit 1 (SRO)	Ops Training Program
3	Shift Technical Advisor	STA (SRO)	Ops Training Program
4	Reactor Operator #1	Unit Rx Operator (RO#1)	Ops Training Program
5	Reactor Operator #2	Aux Rx Operator (RO#2)	Ops Training Program
6	Auxiliary Operator #1	AO #1 (SSD)	Ops Training Program
7	Auxiliary Operator #2	AO #2 (SSD)	Ops Training Program
8			
9			
10			
11			
12			

Other (non-Operations) Personnel Necessary to Implement AOPs and EOPs, or SAMGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
13	Other personnel as assigned by the Emergency Plan (Mechanic)	n/a	n/a
14	Other personnel as assigned by the Emergency Plan (Electrician)	n/a	n/a
15	Other personnel as assigned by the Emergency Plan (I&C Technician)	n/a	n/a
16	Other	n/a	n/a

Attachment 1
TMI

TABLE 3 – Firefighting

Analysis NEI 12-01 Phase 2

Line	Performed By	Task Performance Validation
1	n/a	n/a
2	n/a	n/a
3	n/a	n/a
4	n/a	n/a
5	n/a	n/a

Note:

There is no Fire Brigade response for this scenario.

Attachment 1
TMI

TABLE 4 – Radiation Protection & Chemistry

Analysis NEI 12-01 Phase 2

Line	Position Performing Function/Task	Performance Time Period After Emergency Declaration (minutes)																	
		0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90
1	In-Plant Survey On-Shift Position:																		
2	On-Site Survey On-Shift Position:																		
3	Personnel Monitoring On-Shift Position:																		
4	Job Coverage On-Shift Position: RP#1 FLEX support													X	X	X	X	X	X
5	Offsite Radiological Assessment On-Shift Position:																		
6	Other Site-Specific RP Describe: On-Shift Position: RP#2 FLEX support													X	X	X	X	X	X
7	Other Site-Specific RP Describe: On-Shift Position: RP#3 FLEX support																		
8	Chemistry function/task #1 – Describe: See Notes On-Shift Position: Chem Tech #1 FLEX support																X	X	X

Attachment 1
TMI

TABLE 4 – Radiation Protection & Chemistry Cont'd

Analysis **NEI 12-01 Phase 2**

Line	Position Performing Function/Task	Performance Time Period After Emergency Declaration (minutes)									
		90-120	120-150	150-180	180-210	210-240	240-270	270-300	300-330	330-360	360-390
1	In-Plant Survey On-Shift Position:										
2	On-Site Survey On-Shift Position:										
3	Personnel Monitoring On-Shift Position:										
4	Job Coverage On-Shift Position: RP#1 FLEX support	X	X								
5	Offsite Radiological Assessment On-Shift Position:										
6	Other Site-Specific RP Describe: On-Shift Position: RP#2 FLEX support	X	X	X	X	X					
7	Other Site-Specific RP Describe: On-Shift Position: RP#3 FLEX support	X	X	X	X						
8	Chemistry function/task #1 – Describe: See Notes On-Shift Position: Chem Tech #1 FLEX support	X	X	X	X						

Attachment 1
TMI

TABLE 4 – Radiation Protection & Chemistry

Analysis NEI 12-01 Phase 2

Notes:

RP Techs

- **RP #1** -
 - EP-AA-112-100-F-01, Step 1.10 – An RP tech is assigned to the MCR to support emergency response.
 - RP-TM-300-1008 Radiological Controls For Plant Evolutions And Refuel Outages, Att A, Radiation Protection Shutdown Checklist - As priorities, accessibility and available manpower permit, RP #1 will perform post scram surveys and actions. The activities of this procedure do not have specific time constraints and are to be prioritized with the Emergency Director.
- **RP #2** - RP tech #2 will support emergency response at the direction of the Shift Manager.
- **RP #3** - RP tech #3 will support emergency response at the direction of the Shift Manager.

- **Chem Tech** – The Chemistry tech will support emergency response at the direction of the Shift Manager.

Attachment 1

TMI

TABLE 5 – Emergency Plan Implementation

Analysis NEI 12-01 Phase 2

Line	Function/Task	On-Shift Position	Task Performance Validation
1	Declare the Emergency Classification Level (ECL)*	Shift Manager	Ops Training Program
2	Approve Offsite Protective Action Recommendations*	Shift Manager	Ops Training Program
3	Approve content of State/local notifications*	Shift Manager	Ops Training Program
4	Approve extension to allowable dose limits*	Shift Manager	Ops Training Program/ EP Drills and Exercises
5	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	Shift Manager	Ops Training Program
6	ERO notification	Shift Communicator	Ops Training Program/ EP Drills and Exercises
7	Abbreviated NRC notification for DBT event	NA	NA
8	Complete State/local notification form	Shift Manager	Ops Training Program
9	Perform State/local notifications	Shift Communicator	Ops Training Program/ EP Drills and Exercises
10	Complete NRC event notification form	Shift Manager	Ops Training Program
11	Activate ERDS	NA	NA
12	Offsite radiological assessment**	NA	NA
13	Perform NRC notifications	Shift Communicator	Ops Training Program/ EP Drills and Exercises
14	Perform other site-specific event notifications (e.g., INPO, ANI, etc.)	NA	NA
15	Personnel accountability	NA	NA
16	Other: Specify	NA	NA

* Shift Manager non-delegable duty

** Offsite dose assessment is not required, but can be performed by RP #3 until T = 90; EOF is available at T=60.