



10 CFR 50.4  
10 CFR 50.54(q)(5)  
10 CFR 72.44(f)

TMI-23-013

May 30, 2023

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

Three Mile Island Nuclear Station, Unit 1  
Renewed Facility License No. DPR-50  
NRC Docket No. 50-289 and 72-077

Three Mile Island Nuclear Station, Unit 2  
Facility Possession-Only License No. DPR-73  
NRC Docket No. 50-320

Subject: Constellation Radiological Emergency Plan Document Revision

In accordance with 10 CFR 50.4(b)(5), "Emergency Plan and related submissions," Constellation Energy Generation, LLC (CEG) is submitting the Emergency Plan document revision listed in the table below for the Three Mile Island Nuclear Station (TMI).

Document	Revision	Title
EP-TM-1002	1	<i>Constellation Three Mile Island Independent Spent Fuel Storage Installation (ISFSI) Only Emergency Plan (IOEP)</i>

The changes to the Emergency Plan document noted in the table above were evaluated under the requirements of 10 CFR 50.54(q) and were determined not to result in a reduction in the effectiveness of the Emergency Plan for TMI. This notification is being submitted within 30 days of implementation of the changes as required by 10 CFR 50.54(q)(5). The changes continue to meet the applicable emergency Planning Standards established in 10 CFR 50.47(b), 10 CFR 50, Appendix E, and the Program Element guidance in NUREG-0654.

In addition, as required by 10 CFR 50.54(q)(5), Attachment 1 of this submittal includes a summary analysis of the changes to the noted Emergency Plan document. This submittal also satisfies the reporting requirements associated with 10 CFR 72.44(f), which stipulates that within six months after any change is made to the Emergency Plan, the licensee shall submit a report containing a description of the changes to the Director, Division of Fuel Management, Office of Nuclear Material Safety and Safeguards.

U.S. Nuclear Regulatory Commission  
Emergency Plan Document Revision  
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A copy of the applicable Emergency Plan document and supporting change summary analysis are included in the attachments to this letter.

There are no regulatory commitments in this submittal.

If you have any questions or require additional information, please contact Richard Gropp at [Richard.Gropp@constellation.com](mailto:Richard.Gropp@constellation.com).

Respectfully,



David P. Helker  
Sr. Manager, Licensing  
Constellation Energy Generation, LLC

Attachments: 1) 10 CFR 50.54(q)(5) Procedure Change Summary Analysis  
2) EP-TM-1002, Revision 1, "Constellation *Three Mile Island Nuclear Station Independent Spent Fuel Storage Installation (ISFSI) Only Emergency Plan (IOEP)*"

cc: w/ Attachment 1 only  
Regional Administrator - NRC Region I  
Director, NRC Division of Spent Fuel Management, ONMSS  
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**Attachment 1**

**10 CFR 50.54(q)(5) Procedure Change Summary Analysis**

## **Attachment 1**

### **10 CFR 50.54(q)(5) Procedure Change Summary Analysis**

#### **I. Procedure/Title**

Constellation Energy Generation, LLC (CEG) has issued the Emergency Plan document revision for the Three Mile Island Nuclear Station (TMI) as noted below.

- EP-TM-1002, Revision 1, "*Constellation Three Mile Island Nuclear Station Independent Spent Fuel Storage Installation (ISFSI) Only Emergency Plan (IOEP)*"

#### **II. Description of Procedure**

EP-TM-1002, Revision 1, describes the plan for responding to emergencies that may arise at the TMI facility. The Emergency Plan encompasses both Three Mile Island Unit 1 (TMI-1) and Three Mile Island Unit 2 (TMI-2). This plan is applicable:

- After the TMI-1 has placed all spent fuel previously maintained in the station's Spent Fuel Pool into dry cask storage on the TMI-1 ISFSI. In this condition, no reactor operations can take place and all irradiated fuel is removed from the Spent Fuel Pools (SFPs), and
- At TMI-2, which is undergoing decommissioning activities (DECON).

CEG maintains the emergency planning responsibilities for TMI-2, which is owned by TMI-2 Solutions (subsidiary of Energy Solutions), through a service agreement.

#### **III. Description of Changes**

As noted above, EP-TM-1002, Revision 1, describes the plan for responding to emergencies that may arise at the TMI facility (i.e., TMI-1 and TMI-2). The changes primarily focus on supporting the transition of TMI-2 to the next phase of decommissioning (DECON).

The TMI-2 reactor was damaged during the March 1979 accident. The Emergency Plan revision addresses the change in status of TMI-2 from Post-Defueled Monitored Storage (PDMS) to the next phase of decommissioning (DECON). The DECON phase will involve source term reduction and debris removal in plant areas affected by the accident. Activities in the DECON phase will involve the removal, packaging, and disposal of the small fraction of fuel debris and other radioactive materials remaining from the accident. There are no new or revised Emergency Action Levels (EALs) associated with this change.

Administrative controls are established to limit the amount of radioactive materials available for potential release to the environment during DECON activities. This will ensure that no Emergency Classification Level (ECL) thresholds are exceeded. The requirement to establish administrative controls are included in the TMI-2 Decommissioning Technical Specifications in accordance with a letter and supporting Safety Evaluation Report (SER) issued by the U.S. Nuclear Regulatory Commission date March 31, 2023, issuing Amendment No. 67 to Possession-Only License (POL) for TMI-2. The changes to EP-TM-

1002 are considered "conforming changes" in support of implementing Amendment No. 67 for TMI-2.

In addition, this revision to EP-TM-1002 also included editorial changes to correct or update administrative discrepancies or references, and revised Section 15.2.2, "*Radiological Assessment Personnel*," to align the discussion more closely with the wording used in the NRC SER.

#### **IV. Description of How the Changes Still Comply with Regulations**

The changes to EP-TM-1002 made under this revision continue to integrate the necessary elements to provide effective emergency response considering cooperation and coordination of off-site response organizations expected to respond to potential emergencies.

CEG maintains the emergency planning responsibilities for TMI-2, which is owned by TMI-2 Solutions (subsidiary of Energy Solutions), through a service agreement. The implementation EP-TM-1002, Revision 1, addresses changes to the TMI IOEP in support of implementing Amendment No. 67 to Possession-Only License (POL) for TMI-2 as approved by the NRC on March 31, 2023, and to address minor editorial/administrative discrepancies as noted above. The changes were evaluated in accordance with the requirements of 10 CFR 50.54(q) and were determined not to require prior NRC approval. The changes made in support of implementing Amendment No. 67 are considered "conforming changes" and prior NRC approval is not required to support implementation since the NRC has already approved the changes. NRC Regulatory Guide (RG) 1.129, "*Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors*," states the following regarding "conforming changes":

*The licensee should screen all proposed changes to the emergency plan to determine whether a 10 CFR 50.54(q) evaluation is necessary and to determine whether another formal change process is applicable. The purpose of this screening is not to decide which proposed changes could reduce effectiveness but instead whether a 10 CFR 50.54(q) change evaluation is necessary. The licensee should screen each proposed change separately and reserve the treatment of changes collectively for (1) repetitive identical changes, (2) editorial or typographical changes such as formatting, paragraph numbering, spelling, or punctuation that do not change intent, (3) conforming changes, or (4) two or more elements that are interdependent (e.g., a change to one element compensates for a change to another element). The licensee should document this screening if it concludes that a 10 CFR 50.54(q) evaluation is not necessary.*

The implementation of EP-TM-1002, Revision 1 does not alter the meaning or intent of the basis of the NRC-approved IOEP for TMI. Existing requirements and capabilities for the TMI IOEP have not been deleted or reduced as a result of the changes described. A review of existing regulatory commitments was made to ensure any applicable existing commitments continue to be met. The changes described for the TMI IOEP meet applicable regulatory requirements established in 10 CFR 50.47, 10 CFR 50, Appendix E, and the Program Element guidance of NUREG-0654 as they relate to: 1) a permanently defueled facility where the spent fuel has removed from the TMI-1 SFPs and transferred to dry cask storage within the onsite TMI-1 ISFSI, and 2) the transition of TMI-2 to the next phase of decommissioning (DECON).

**V. Description of Why the Changes are Not a Reduction in Effectiveness (RIE)**

Based on the changes described in Sections III and IV above for the IOEP for TMI, emergency response capabilities are maintained and are not adversely impacted by the changes. The implementation of this revision to EP-TM-1002 does not alter the meaning or intent of the basis of the NRC-approved IOEP for TMI. The changes related to TMI-2 are consistent with the guidance specified in RG 1.219 for a "conforming change" and, therefore, prior NRC approval is not required. Existing requirements and capabilities for the TMI IOEP have not been deleted or reduced as a result of the changes described. A review of existing regulatory commitments was made to ensure any applicable existing commitments continue to be met. The changes described for the TMI IOEP meet applicable regulatory requirements established in 10 CFR 50.47, 10 CFR 50, Appendix E, and the Program Element guidance of NUREG-0654 as they relate to: 1) a permanently defueled facility where the spent fuel has been removed from the TMI-1 SFPs and transferred to dry cask storage within the onsite TMI-1 ISFSI, and 2) the transition of TMI-2 to the next phase of decommissioning (DECON). Therefore, the changes described do not constitute a reduction in effectiveness in support of implementing the IOEP for the TMI facility.

**Attachment 2**

Emergency Plan Document Revision

**EP-TM-1002, Revision 1, "*Constellation Three Mile Island Nuclear Station Independent Spent Fuel Storage Installation (ISFSI) Only Emergency Plan (IOEP)*"**

**CONSTELLATION**

**THREE MILE ISLAND**

**INDEPENDENT SPENT FUEL STORAGE  
INSTALLATION (ISFSI) ONLY  
EMERGENCY PLAN (IOEP)**





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**PART I**

**1.0 INTRODUCTION**

The INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) Only Emergency Plan (IOEP) describes the plan for responding to emergencies that may arise at the Three Mile Island Nuclear Station (TMI). The Emergency Plan encompasses both Three Mile Island Unit 1 (TMI-1) and Three Mile Island Unit 2 (TMI-2).

This plan is applicable:

- After the TMI-1 has placed all spent fuel previously maintained in the station’s Spent Fuel Pool into dry cask storage on the TMI-1 ISFSI. In this condition, no reactor operations can take place and all irradiated fuel is removed from the Spent Fuel Pools (SFPs), and
- At TMI-2, which is undergoing decommissioning activities (DECON)

Constellation maintains the emergency planning responsibilities for TMI-2, which is owned by TMI-2 Solutions (subsidiary of Energy Solutions), through a service agreement.

This IOEP adequately addresses the risks associated with TMI's current conditions.

For TMI-1, as provided in the ISFSI storage system Final Safety Analysis (FSAR), the analysis of the potential radiological impacts of postulated off-normal, natural phenomenon, and accident events in an ISFSI only condition indicates that any releases would result in a DOSE to the public below the radiation limits established in 10 CFR 72.106(b). Exposure levels, which warrant pre-planned response measures, are generally limited to the ISFSI pad and nearby vicinity, and for this reason radiological emergency planning is focused on this area.

For TMI-2, limited radiological source term and administrative controls on allowed activity and storage of radiological materials result in no credible accident scenario that would exceed any NEI 99-01 Revision 6 emergency classification levels. Hence, this plan does not require any emergency planning functions for TMI-2.

For TMI-2 open air demolition activities are not covered under the scope of the TMI IOEP. Additional evaluation and administrative controls must be developed and evaluated and this IOEP revised prior to commencement of any open air demolition.

**1.1 PURPOSE**

The purpose of the IOEP is to assure an adequate level of preparedness to cope with a spectrum of emergencies that could be postulated to occur, including the means to minimize radiation exposure to facility personnel. This plan integrates the necessary elements to provide effective emergency response considering cooperation and coordination of off-site organizations expected to respond to potential emergencies.

**1.2 SCOPE**

The IOEP has been developed to respond to potential radiological emergencies at TMI. Because there are no postulated accidents that would result in DOSE consequences that are

large enough to require OFFSITE emergency planning, the overall scope of this plan delineates the actions necessary to safeguard ONSITE personnel and minimize damage to property. If

determined appropriate by government officials, PROTECTIVE ACTIONS may be implemented to protect the public using an all-hazards approach to emergency planning.

The concepts presented in this plan address the applicable regulations stipulated in 10 CFR 50.47, "Emergency Plans" and 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," as exempted. Exemptions to selected portions of 10 CFR 50.47(b), 10 CFR 50.47(c)(2) and 10 CFR Part 50, Appendix E were previously approved by the NRC on December 1, 2020 (ADAMS Accession Number: ML20244A292 and ML20244A293). The plan is consistent with the remaining applicable guidelines established in NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Facilities" (NUREG-0654). Appendix 3 contains a cross-reference to the applicable guidance in NUREG-0654.

## **2.0 DISCUSSION**

### **2.1 OVERVIEW OF ISFSI ONLY EMERGENCY PLAN (IOEP)**

In the event of an emergency at TMI, actions are required to identify and assess the nature of the emergency and to bring it under control in a manner that protects the health and safety of the public and facility personnel.

This plan describes the organization and responsibilities for implementing emergency measures. It describes interfaces with Federal, Commonwealth of Pennsylvania, and local organizations that may be notified in the event of an emergency and may be requested to provide assistance.

Emergency services are provided by local public and private entities as provided in Part II, Section 1.

Law enforcement support services are provided by local, state, and federal law enforcement authorities, as appropriate. Ambulance service is provided by Londonderry Volunteer Fire Company.

Because there are no postulated accidents that would result in off-site DOSE consequences that are large enough to require off-site emergency planning, emergencies are divided into two CLASSIFICATIONS: 1) Notification of UNUSUAL EVENT (UNUSUAL EVENT) and 2) ALERT. The CLASSIFICATION scheme, developed in accordance with Nuclear Energy Institute (NEI) 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Revision 6, November 2012 (NEI 99-01), has been discussed and agreed upon with responsible OFFSITE organizations and is compatible with their respective emergency plans. If determined appropriate by government officials, PROTECTIVE ACTIONS may be implemented to protect the public using the existing all hazards emergency planning (i.e., Comprehensive Emergency Management Plan (CEMP)).

Constellation is responsible for planning and implementing emergency measures associated with the TMI site. This plan is provided to meet this responsibility. To carry out specific emergency measures discussed in this plan, detailed EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIP) are established and maintained. A list of EPIPs is included in Appendix B.

In addition to the description of activities and steps that can be implemented during a potential emergency, this Plan also provides a general description of the steps taken to recover from an emergency situation. It also describes the training, drills, EXERCISES, planning, and coordination appropriate to maintain an adequate level of emergency preparedness.

### **2.2 FACILITY DESCRIPTION**

The TMI site is located in an area of low population density about 12 miles southeast of Harrisburg, Pennsylvania. The area is in Londonderry Township, Dauphin County, about 2.5 miles from the southern tip of Dauphin County, where the county is coterminous with York and Lancaster Counties.

TMI-1 is owned by Constellation. TMI-1 formerly consisted of a single unit Babcock and Wilcox (B&W) Company (Currently AREVA) pressurized water reactor (PWR). TMI-1 ceased power operations in September 2019 and certified that fuel had been permanently removed from

the reactor vessel. The 10 CFR Part 50 license for TMI-1 no longer authorize operation of the reactor, emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2). All spent fuel has been transferred to the TMI-1 ISFSI which is located to the south of the TMI-1 facility. The TMI-1 ISFSI is a robust and high integrity facility for the spent fuel storage system. The ISFSI is designed to prevent the release of radioactivity in the event of accidents, including environmental phenomena (e.g., earthquake).

TMI-2 is owned by TMI-2 Solutions. The TMI-2 reactor was damaged during an accident in 1979 and is currently defueled and is undergoing decommissioning activities (DECON).

The TMI site is part of an 814-acre tract consisting of TMI and several adjacent islands, which were purchased by a predecessor. The island, which is situated about 900 feet from the east bank and approximately one mile from the west bank of the Susquehanna River, is elongated parallel to the flow of the river with its longest axis oriented approximately due north and south. The north and south ends of the island have access bridges, which connect the island to State Highway Route 441. The north access bridge is used daily. Route 441 is a two-lane highway, which runs parallel to TMI on the east bank of the Susquehanna River and is more than 2,000 feet from the TMI reactors at the closest point. The EXCLUSION AREA for TMI is a 2,000-foot radius, and for the purposes of Emergency Planning, the EXCLUSION AREA and the site boundary are considered the same.

A Norfolk Southern one-track line runs adjacent and parallel to Route 441 on the east bank of the river. On the west bank of the river, there is a multi-track Norfolk Southern line at the river's edge about 1.25 miles west of the site and a black top, two lane road that runs parallel to it. There is a one-track railroad spur across the bridge on the north end of the island, which is used for site-related activities.

### **2.3 SUMMARY OF EMERGENCY ACTIONS**

This Plan is activated by the ISFSI Shift Supervisor (ISS), who assumes the position of EMERGENCY DIRECTOR (ED) upon DECLARATION of an emergency based upon CLASSIFICATION of an event according to the EMERGENCY ACTION LEVEL (EAL) criteria. The emergency measures described in the subsequent sections and implementing procedures are implemented in accordance with the CLASSIFICATION and nature of the emergency at the direction of the ED. Regulatory authorities and OFFSITE support organizations are notified in accordance with this Plan. The ED has authority and responsibility for control and mitigation of the emergency, including emergency response resources, coordination of radiological ASSESSMENT ACTIONS, recovery implementation, and coordination of emergency response activities. The following sections of this Plan describe the detailed plans and actions of the TMI EMERGENCY RESPONSE ORGANIZATION (ERO), including interfaces with OFFSITE support organizations.



**3.0 REFERENCES**

References consulted in the writing of this Plan are listed in this section. With exception of regulatory requirements, inclusion of material on this list does not imply adherence to all criteria or guidance stated in each individual reference.

- 3.1. 10 CFR 20, "Standards for Protection Against Radiation"
- 3.2. 10 CFR 50.47, "Emergency plans"
- 3.3. 10 CFR 50.72, "Immediate notification requirements for operating nuclear power reactors"
- 3.4. 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities"
- 3.5. 10 CFR 72.13, "Applicability"
- 3.6. 10 CFR 72.32, "Emergency Plan"
- 3.7. 10 CFR 72.44, "License conditions"
- 3.8. 10 CFR 72.75, "Reporting requirements for specific events and conditions"
- 3.9. 10 CFR 72.106, "Controlled area of an ISFSI or MRS"
- 3.10. NUREG-1140, Final Report published January 1988, "A Regulatory Analysis on Emergency Preparedness for Fuel Cycle and Other Radioactive Material Licensees"
- 3.11. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities"
- 3.12. NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (November 1980)
- 3.13. NUREG-0728, "Report to Congress, "NRC Incident Response Plan"
- 3.14. NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities"
- 3.15. US NRC Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors", Revision 4, July 2003
- 3.16. NRC Information Notice No. 85-44, "Emergency Communication System Monthly Test"
- 3.17. NRC Information Notice No. 90-08, "KR-85 Hazards from Decayed Fuel"
- 3.18. EPA-400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," October 1991 (reprinted May 1992)
- 3.19. American Nuclear Insurers Bulletin #5B (1981), "Accident Notification Procedures for Liability Insured"

- 3.20. Letter from U.S. Nuclear Regulatory Commission to, Bryan C. Hanson (Exelon Generation Company, LLC) "Three Mile Island Nuclear Station, Units 1 and 2 – Exemptions from Certain Emergency Planning Requirements and Related Safety Evaluation (EPID L-2019-LLE-0016)," dated December 1, 2020 (ML20244A292 and ML20244A293)
- 3.21. TMI-1 Defueled Safety Analysis Report (DSAR)
- 3.22. TMI-2 Defueled Safety Analysis Report ( DSAR)
- 3.23. MAGNASTOR® Cask System, Certificate of Compliance No. 1031, Final Safety Analysis Report, and Technical Specifications
- 3.24. NEI 99-01, Rev. 6, "Development of Emergency Action Levels for Non-Passive Reactors"
- 3.25. Environmental Protection Agency, "Protective Action Guide and Planning Guidance for Radiological Incidents," Draft for Interim Use and Public Comment (March 2013)
- 3.26. 10 CFR 72.3, "Definitions"
- 3.27 "Supplement to License Amendment Request – Proposed Changes to TMI-2 Possession Only License and Technical Specifications" January 27, 2023 (TMI2-RA-COR-2023-0002)
- 3.28 "Amended Post-Shutdown Decommissioning Activities Report (PSDAR) for Three Mile Island, Unit 2 in Accordance with 10 CFR 50.82(a)(7)", Revision 5, October 27, 2022
- 3.29 License Amendment Request – Three Mile Island, Unit 2, Decommissioning Technical Specifications, February 2021 (TMI2-RA-COR-2021-0002)
- 3.30 Source Term Limitations and Administrative Controls for the TMI-2 Decommissioning Emergency Plan Action Levels, January 18, 2023 (164090-EN-CAL-004)
- 3.31 TMI-2 Source Term Limitations and Administrative Controls to Prevent Exceeding the Emergency Action Levels (EALs) for Zeolite Liner Drop and Processed Water Storage Tank (PWST) Rupture, January 10, 2023 (164090-EN-CAL-003)
- 3.32 Safety Evaluation Report by the Office of Nuclear Security and Incident Response Related to Amendment No 067 to Possession Only License No. DPR-73 TMI02 Solutions, LLC Three Mile Island Nuclear Station, Unit No.2 Docket No. 50-320, dated March 31, 2023 (ML 23051A044).

## 4.0 DEFINITIONS AND ABBREVIATIONS

### 4.1 DEFINITIONS

This section provides definitions that are used in this document. Terms capitalized in the text of the definitions indicate that they are defined elsewhere in this section.

ACCIDENT ASSESSMENT - consists of a variety of actions taken to determine the nature, effects, and severity of an accident.

ACCOUNTABILITY - A procedural or discretionary PROTECTIVE ACTION taken for all persons within the ISFSI PROTECTED AREA, which involves the gathering of personnel into pre-designated areas, and the subsequent verification that the location of these personnel is known.

ALERT - See definition in Part II, Section 4.2.

ANNUAL - Frequency of occurrence equal to once per calendar year, January 1 to December 31.

ASSESSMENT ACTIONS - Actions taken during or after an emergency for the purpose of obtaining and processing the information that will be used to make the decisions to implement specific emergency measures.

BIENNIAL - Frequency of occurrence equal to once per two calendar year periods.

CLASSIFICATION - The comparison of conditions, indications, and reports associated with an off-normal, natural phenomenon, or accident event to the approved emergency classification system to determine the most accurate EMERGENCY ACTION LEVEL. The classification of emergencies is divided into two (2) categories or conditions, in ascending order of severity they are (1) UNUSUAL EVENT and (2) ALERT.

COMMAND AND CONTROL - When in COMMAND AND CONTROL of the event, the designated individual has overall responsibility for the TMI emergency response efforts.

CORRECTIVE ACTION - Those emergency measures taken to lessen or terminate an emergency situation to prevent an uncontrolled release of radioactive material, or to reduce the magnitude of a release. CORRECTIVE ACTIONS include, but are not limited to, equipment repair or shutdown, installation of emergency structures, firefighting, repair, and damage control.

DECLARATION - Official determination by the EMERGENCY DIRECTOR that conditions at the ISFSI meet the criteria for an EMERGENCY ACTION LEVEL warranting CLASSIFICATION of an emergency at the UNUSUAL EVENT or ALERT CLASSIFICATION.

DECON - As it relates to TMI-2, this activity consists of two phases (References 3.27 and 3.28): The first phase involves activities necessary to complete the cleanup from the March 28, 1979, accident, including source term reduction and debris material removal. The second phase entails typical decommissioning and decontamination activities.

**DECONTAMINATION** – The reduction or removal of radioactive material contamination from a structure, area, material, object, or person. Decontamination may be accomplished by (1) treating the surface so as to remove or decrease the contamination, (2) letting the material stand so that the radioactivity is decreased as a result of natural decay, and (3) covering the contamination.

**DESIGN BASIS ACCIDENT (DBA)** – Credible accident events as analyzed in the ISFSI storage system Final Safety Analysis Reports (FSARs).

**DOSE** – A generic term that means absorbed dose, dose equivalent, effective dose equivalent, deep dose equivalent, committed dose equivalent, committed effective dose equivalent, or TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE).

**DOSE RATE** – The amount of ionizing (or nuclear) radiation to which an individual would be exposed per unit of time. As it would apply to DOSE RATE to a person, it is usually expressed as rems per hour or in submultiples of this unit, such as millirems per hour. The DOSE RATE is commonly used to indicate the level of radioactivity in a contaminated area.

**EMERGENCY ACTION LEVEL (EAL)** – A pre-determined, site-specific, observable threshold for an INITIATING CONDITION that when met or exceeded places TMI in a given EMERGENCY CLASSIFICATION LEVEL.

**EMERGENCY CLASSIFICATION LEVEL (ECL)** – One of a set of names or titles established by the Nuclear Regulatory Commission (NRC) for grouping off-normal events or conditions according to potential or actual effects or consequences, and the resulting response actions. The EMERGENCY CLASSIFICATION LEVELS applicable to TMI, in ascending order of severity, are:

UNUSUAL EVENT  
ALERT

**EMERGENCY DIRECTOR (ED)** – The Director of the facility in COMMAND AND CONTROL of the event. The ISFSI Shift Supervisor fills the role of ED throughout an event.

**EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPS)** – Specific procedures describing actions needed to implement the IOEP and describing the methods established to maintain and monitor the IOEP.

**EMERGENCY RESPONSE FACILITY (ERF)** – The security center of the station from which the ISFSI can be monitored. The facility containing the communication equipment necessary for both normal and emergency conditions. It is operated under the direction of the ISS/ED and serves as the primary location for event CLASSIFICATION, emergency DECLARATION and Notifications to OFFSITE agencies, ASSESSMENT ACTIONS, and CORRECTIVE ACTION direction.

**EMERGENCY RESPONSE ORGANIZATION (ERO)** – Organization of personnel who may be called upon during an emergency to perform duties to mitigate accident conditions at TMI.

**EMERGENCY RESPONSE PERSONNEL** – Personnel who may be called upon during an emergency to perform duties to mitigate accident conditions at TMI.

**ESSENTIAL PERSONNEL** – TMI-1 personnel that either have assigned emergency response duties, are security personnel, are required for maintaining the safe operation of the ISFSI, or are personnel either identified as essential by the ISS/ED or performing critical tasks under the direction of the ISS/ED.

**EXCLUSION AREA/EXCLUSION AREA BOUNDARY (EAB)** – The EXCLUSION AREA for TMI is a 2,000-foot radius, and for the purposes of Emergency Planning, the EXCLUSION AREA and the site boundary are considered the same.

**EXERCISE** – An event that tests the integrated capability of a major portion of the basic elements existing within emergency preparedness plan and organization.

**HOSTAGE** – See definition in Addendum 1.

**HOSTILE ACTION** - See definition in Addendum 1.

**INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)** – A complex designed and constructed for the interim storage of spent nuclear fuel, solid reactor-related Greater Than Class C (GTCC) waste, and other radioactive materials associated with spent fuel and reactor-related GTCC waste storage.

**INITIATING CONDITION** – An event or condition that aligns with the definition of one of the ECLs by virtue of the potential or actual effects or consequences.

**INTEGRATED DRILL** – A drill that incorporates multiple demonstration requirements to be conducted in connection with one another.

**LEAD AGENCY** – Pennsylvania Emergency Management Agency (PEMA)

**LOCAL GOVERNMENT AGENCIES** – Dauphin and Lancaster Counties

**OFFSITE** – The area around the station that lies beyond the EAB.

**ONSITE** – The area around the station that lies within the EAB.

**PROTECTIVE ACTIONS** – Those emergency measures taken for the purpose of preventing or minimizing radiological, or other hazard, exposures to affected population groups.

**RADIOLOGICALLY CONTROLLED AREA (RCA)** – An area within the restricted area posted in accordance with procedure for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials.

**TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE)** – The sum of the effective DOSE equivalent (for external exposure) and the committed effective DOSE equivalent (for internal exposure).

**UNUSUAL EVENT (UE)** – See definition in Part II, Section 4.1.

## 4.2 ACRONYMS

BRP	Bureau of Radiation Protection (Pennsylvania)
CFR	Code of Federal Regulations
DBA	DESIGN BASIS ACCIDENT
DLR	Dosimeter of Legal Record
DSAR	Defueled Safety Analysis Report
EAB	EXCLUSION AREA BOUNDARY
EAL	EMERGENCY ACTION LEVEL
ECL	EMERGENCY CLASSIFICATION LEVEL
ED	EMERGENCY DIRECTOR
EP	Emergency Preparedness
ENS	Emergency Notification System (NRC)
EPIPS	EMERGENCY PLAN IMPLEMENTING PROCEDURES
ERF	EMERGENCY RESPONSE FACILITY
ERO	EMERGENCY RESPONSE ORGANIZATION
HMC	Hershey Medical Center
ISFSI	INDEPENDENT SPENT FUEL STORAGE INSTALLATION
ISS	ISFSI Shift Supervisor
IOEP	ISFSI-Only Emergency Plan
NRC	United States Nuclear Regulatory Commission
PA	Protected Area
PEMA	Pennsylvania Emergency Management Agency
RCA	RADIOLOGICALLY CONTROLLED AREA
TEDE	TOTAL EFFECTIVE DOSE EQUIVALENT
UE	UNUSUAL EVENT

## **PART II**

### **1.0 ASSIGNMENT OF RESPONSIBILITY (ORGANIZATION CONTROL)**

*Planning Standard 50.47(b)(1) (as exempted in Reference 3.20) – Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.*

#### **1.1 EMERGENCY RESPONSE AND RESPONSIBILITIES**

The ISFSI Shift Supervisor (ISS) is at the station 24 hours a day and is the senior management position at the station during off-hours. This position is responsible for monitoring TMI-1 ISFSI conditions, managing TMI-1 ISFSI activities, and monitoring TMI-2 conditions.

The individual in charge of the TMI emergency response is given the title of EMERGENCY DIRECTOR (ED). When an off-normal, natural phenomenon, or accident event becomes apparent, the ISS shall assess the condition and declare an emergency if warranted. When an emergency is declared the ISS assumes the position of the EMERGENCY DIRECTOR (ED).

The on-shift personnel, as described in Part II, Section 2.1, are available 24 hours per day. The on-shift personnel are capable of performing all required response actions, including manning of communications, until individuals arrive to augment shift personnel. The ERO maintains the depth and capability for continuous 24-hour coverage of the emergency response for a protracted period.

#### **1.2 OFFSITE RESPONSE ORGANIZATIONS (ORO)**

Agreements are maintained with OFFSITE organizations who do not take part in the organizational control of the emergency, that provide assistance when called upon during an emergency or during the recovery phase. These agreements identify the emergency measures to be provided, the mutually accepted criteria for implementation, and the arrangements for exchange of information. The actual letters and memoranda of agreement are maintained in Emergency Preparedness files, with the exception of the law enforcement, which is maintained by Security. These organizations provide services of:

- a) Fire protection,
- b) Rescue operations,
- c) Ambulance services,
- d) Medical and hospital services, and
- e) Law enforcement.

**Pennsylvania Emergency Management Agency (PEMA)**

PEMA is the LEAD AGENCY and is required to be notified within 30 minutes after declaring an emergency. PEMA is available on a 24-hour basis to receive emergency communications from TMI staff and will implement/coordinate the Commonwealth's response as part of the Comprehensive Emergency Management Plan.

**County Support**

Dauphin and Lancaster Counties Emergency Management Agencies will be notified within 30 minutes after declaring an emergency. The Counties will aid in supplying emergency management support (fire, medical support).

**Pennsylvania State Police**

Local Law Enforcement Agency to provide emergency assistance per the Site Security Plan. The Letter of Agreement is maintained by the Site Security Department).

**Londonderry Volunteer Fire Department**

Arrangements have been made with the Londonderry Volunteer Fire Department to provide the primary response for fire and emergency medical services(ambulance). The Londonderry Fire Department is approximately 5 miles from the TMI facility, which allows for timely response from the initial notification.

**Hershey Medical Center**

Hospital personnel have been trained and hospitals are equipped to handle contaminated, or radiation injured individuals. Specifically, training of medical support personnel at the agreement hospitals will include basic training on the nature of radiological emergencies, diagnosis and treatment, and follow-up medical care. Facility personnel are available to assist medical personnel with DECONTAMINATION, radiation exposure and contamination control.



## 2.0 EMERGENCY RESPONSE ORGANIZATION (ERO)

*Planning Standard 50.47(b)(2) – 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.*

### 2.1 ON-SHIFT POSITIONS

TMI-1 has personnel on-shift at all times that provide the initial response to an event. Members of the on-shift organization are trained on their responsibilities and duties in the event of an emergency and are capable of performing all necessary response actions until the augmentation personnel arrive or the event is terminated. The normal shift staffing assignments include the roles and responsibilities for their emergency response functions.

#### 2.1.1 ISFSI SHIFT SUPERVISOR (ISS)/EMERGENCY DIRECTOR (ED)

The ISS is the on-shift individual who makes the initial event CLASSIFICATION and assumes the role of ED upon emergency DECLARATION and has the authority and responsibility to immediately and unilaterally initiate any emergency actions. If the ISS is unavailable or incapacitated, another on-shift person, qualified as ED, will assume the ED duties.

The ED has the authority to suspend any security measure described in the Physical Security Plan as necessary to facilitate response to emergency conditions.

The non-delegable responsibilities of the ISS/ED include the following:

- Event CLASSIFICATION and emergency DECLARATION
- Authorization of radiation exposure in excess of 10 CFR 20 limits

Key delegable responsibilities of the ED include the following:

- Notification of OFFSITE agencies (federal, state, and local)
- Management of available station resources
- Initiation of assessment and mitigative/CORRECTIVE ACTIONS
- Initiation of ONSITE PROTECTIVE ACTIONS
- Decision to call for OFFSITE law enforcement, firefighting or ambulance assistance
- Augmentation of the EMERGENCY RESPONSE ORGANIZATION as deemed necessary
- Coordination or suspension of Security activities
- Termination of the emergency condition when appropriate
- Performance of initial radiological assessment
- Maintain a record of event activities

**2.2 SECURITY**

Station Security is administered by the Security Plan and Security personnel report to the ED when implementing the IOEP. Security personnel assist the ED as directed.

**2.3 AUGMENTED POSITION**

The ERO is responsible for implementing the actions described in this Plan. The ERO is made up of on-shift personnel (described in Part II, Section 2.1), augmented by the Resource Manager, and Radiological Assessment Personnel (if required). Supplemental personnel are contacted as needed.

**2.3.1 RESOURCE MANAGER**

The Resource Manager will be in contact with the ED within two (2) hours of CLASSIFICATION. The Resource Manager will augment the ED by assisting in assessment of the emergency conditions (refer to Table 2-1) and coordinating required resources, including public information interface. The Resource Manager does not need to physically report to TMI to perform their responsibilities. Supplemental personnel shall report at the discretion of the ED and/or the Resource Manager.

**2.3.2 RADIOLOGICAL ASSESSMENT PERSONNEL**

For a declared emergency involving radiological consequences (e.g. E-HU1), a minimum of one person trained in radiological monitoring and assessment will report to the ISFSI within four hours of the emergency DECLARATION to assist the ED.

**2.4 SUPPLEMENTAL PERSONNEL**

Additional personnel resources may be directed to report to TMI to provide support as needed to assess radiological conditions, conduct maintenance and repair activities, develop and implement CORRECTIVE ACTION plans, and assist with recovery actions. The supplemental personnel are available from TMI staff, Constellation personnel, and may be requested from various contractors as needed.

**2.5 FUNCTIONAL RESPONSIBILITIES**

Table 2-1 below lists the functional responsibilities of on-shift and augmented positions that fulfill emergency staffing capabilities.

**TABLE 2-1  
EMERGENCY RESPONSE ORGANIZATION STAFFING AND RESPONSIBILITY**

<b>FUNCTIONAL AREA</b>	<b>LOCATION</b>	<b>SHIFT STAFFING</b>	<b>AUGMENTED OFFSITE RESPONSE</b>
Assessment of Condition	EMERGENCY RESPONSE FACILITY	EMERGENCY DIRECTOR (a)	Resource Manager
Emergency Direction and Control	EMERGENCY RESPONSE FACILITY	EMERGENCY DIRECTOR (a)	---
Notifications / Communications	EMERGENCY RESPONSE FACILITY	EMERGENCY DIRECTOR (a)	---
Radiological ACCIDENT ASSESSMENT and PROTECTIVE ACTIONS	EMERGENCY RESPONSE FACILITY / On Scene	EMERGENCY DIRECTOR (a)	Resource Manager (b)
			RP Support (c)
CORRECTIVE ACTIONS	EMERGENCY RESPONSE FACILITY / On Scene	EMERGENCY DIRECTOR (a)	Resource Manager (b) / Supplemental / Support Personnel
Firefighting	On Scene	Per Fire Protection Program Plan	OFFSITE Response Organization
Rescue and First Aid Treatment	On Scene	(d)	OFFSITE Response Organization
Security	Per Security Plan	Per Security Plan	---

(a) One person comprising the on-shift minimum staff. May perform concurrent functions. (b) One person comprising the augmented ERO. May perform concurrent function(c) For a declared emergency involving radiological consequences (E-HU1), a minimum of one person trained in radiological monitoring and assessment will report to the TMI-1 ISFSI within four (4) hours of the emergency DECLARATION.

(d) Provided by on-shift personnel who may be assigned other functions.

### **3.0 EMERGENCY RESPONSE SUPPORT AND RESOURCES**

*Planning Standard 50.47(b)(3) (as exempted in Reference 3.20) – Arrangements for requesting and effectively using assistance resources have been made, and other organizations capable of augmenting the planned response have been identified.*

#### **3.1 LOCAL SERVICES**

Arrangements have been made for the extension of the ERO's capability to address emergencies. Arrangements are in place through letters of agreement for ambulance services, treatment of contaminated and injured patients, fire support services, and law enforcement response as requested by the facility. Evidence of agreements with participating local services is listed in Appendix C.

#### **3.2 FEDERAL GOVERNMENT SUPPORT**

Resources of federal agencies appropriate to an emergency condition are made available in accordance with the National Response Framework. This plan and the resources behind it are activated through the facility notification of the NRC.

#### **3.3 ADDITIONAL SUPPORT**

Dependent upon the emergency condition and response needs, the TMI ERO can be augmented by personnel and equipment support from the remainder of the Constellation organization. This support capability is outlined in the EMERGENCY PLAN IMPLEMENTING PROCEDURES referenced in Appendix B.

#### 4.0 **EMERGENCY CLASSIFICATION SYSTEM**

*Planning Standard 50.47(b)(4) (as exempted in Reference 3.20) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee.*

TMI utilizes NEI 99-01, Revision 6, “Development of Emergency Action Levels for Non-Passive Reactors” as its basis for classifying emergencies. The CLASSIFICATION system referenced in NEI 99-01, Rev. 6 has been endorsed by the NRC and offers a standard method for classifying emergencies. Addendum 1 provides the site and ISFSI Only EALs.

This Plan addresses two (2) CLASSIFICATIONS of emergencies (UNUSUAL EVENT and ALERT), which represent a hierarchy of emergencies based on potential accidents that could occur at TMI. Once indications are available that an EAL is met, the event is assessed and classified, and the corresponding EMERGENCY CLASSIFICATION LEVEL is promptly declared as soon as possible.

##### 4.1 **UNUSUAL EVENT**

**EVENTS ARE IN PROGRESS OR HAVE OCCURRED WHICH INDICATE A POTENTIAL DEGRADATION OF THE LEVEL OF SAFETY AT TMI OR INDICATE A SECURITY THREAT TO FACILITY PROTECTION HAS BEEN INITIATED. NO RELEASES OF RADIOACTIVE MATERIAL REQUIRING OFFSITE RESPONSE OR MONITORING ARE EXPECTED. STATE AND LOCAL GOVERNMENT AGENCIES, AND THE NRC ARE NOTIFIED OF AN UNUSUAL EVENT.**

The purpose of the UNUSUAL EVENT CLASSIFICATION is to bring the on-shift staff to a state of readiness and to provide for systematic handling of event information and its related decision making.

##### 4.2 **ALERT**

**EVENTS ARE IN PROGRESS OR HAVE OCCURRED WHICH INVOLVE AN ACTUAL OR POTENTIAL SUBSTANTIAL DEGRADATION OF THE LEVEL OF SAFETY AT TMI OR A SECURITY EVENT THAT INVOLVES PROBABLE LIFE-THREATENING RISK TO SITE PERSONNEL OR DAMAGE TO ISFSI EQUIPMENT BECAUSE OF A HOSTILE ACTION. ANY RELEASES ARE EXPECTED TO BE LIMITED TO SMALL FRACTIONS OF THE EPA PAG EXPOSURE LEVELS.**

As in the case of the UNUSUAL EVENT, the ALERT CLASSIFICATION includes emergency situations which are not expected to threaten the public, but for which notification of the State and LOCAL GOVERNMENT AGENCIES, and the NRC is required.

On-shift staffing will be supplemented by the augmented ERO at the ALERT Level.

### 4.3 EMERGENCY ACTION LEVELS AND POSTULATED ACCIDENTS

For TMI-1: Both EMERGENCY CLASSIFICATION LEVELS are characterized by EALs consisting of specific instrument readings and/or observations which are used to tell the TMI-1 ISS that an INITIATING CONDITION has been met. These EALs are used to assure that the initial CLASSIFICATION of emergencies can be accomplished rapidly, allowing for the prompt identification of the nature of mitigating activities needed.

EALs and INITIATING CONDITIONS are provided under the following categories for TMI:

- Hazards and Other Conditions
- ISFSI Malfunction

Specific guidance for classifying emergencies is found in EIPs and Addendum 1, TMI ISFSI Only Emergency Action Levels and Technical Bases.

EALs shall be reviewed with State and LOCAL GOVERNMENT AGENCIES on an ANNUAL basis.

For TMI-2: Plant radiological conditions during DECON are the result of approximately 99% of the fuel having been previously removed from site and remaining radioactive materials distributed within site structures, systems and components as a result of the March 28, 1979, accident and subsequent mitigation activities (Reference 3.29).

Potential source terms involve only radioactive particulates and limited mechanisms to transport radioactive materials offsite. Potential radiological emergencies could involve the resuspension of radioactive particulates from plant structures, systems and components, and the transport of those materials outside the site boundary. Administrative controls (References 3.30 and 3.31) have been implemented as required by Technical Specification 6.15.2 which significantly limit the potential consequences of such emergency events at TMI-2 and include limiting the activity and quantity of radioactive materials in open storage containers and deposited on effluent HEPA filters, and actions to limit the possibility and severity of mechanisms that could resuspend such materials and transport it offsite. Reference 3.27 describes these postulated events and detail how those events are mitigated.

The referenced analyses demonstrate that the consequences of emergency events that could occur during DECON activities at TMI-2 do not exceed any emergency classification level criteria as detailed in NEI 99-01 Revision 6.

## 5.0 NOTIFICATION METHODS AND PROCEDURES

*Planning Standard 50.47(b)(5) (as exempted in Reference 3.20) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations has been established.*

### 5.1 NOTIFICATION AND MOBILIZATION OF TMI EMERGENCY RESPONSE PERSONNEL

The EIPs provide direction for alerting and notifying ONSITE EMERGENCY RESPONSE PERSONNEL of the initial CLASSIFICATION or any escalation of an emergency by verbal announcement over the plant page system or portable radios, or through an electronic notification system capable of notifying personnel by multiple means of communications (e.g. cell phone, email, text, landline, etc.). Each emergency CLASSIFICATION may result in augmentation personnel being notified to respond. EIPs provide direction for augmentation should it be deemed appropriate.

### 5.2 BASES FOR NOTIFICATION OF OFFSITE AGENCIES

The notification of personnel and EMERGENCY RESPONSE ORGANIZATIONS is commensurate with the hazard posed by the emergency. The EMERGENCY CLASSIFICATION SYSTEM described in Part II, Section 4.0 is the primary bases for notification and has been mutually agreed upon by applicable state and federal response organizations.

The ED is responsible for identifying the appropriate emergency CLASSIFICATION, declaring the emergency and initiating emergency notifications.

Notification to the LEAD AGENCY and LOCAL GOVERNMENT AGENCIES is required within 30 minutes of emergency DECLARATION, escalation, or change in radiological release status.

The following OFFSITE agencies, at a minimum, will receive emergency messages:

PEMA

Dauphin County

Lancaster County

### 5.3 EMERGENCY MESSAGES

Notification of an emergency is provided verbally to the State and LOCAL GOVERNMENT providing them with applicable information utilizing an established message format that describes the accident status. The content of the initial notification and follow-up message form has been established in conjunction with the Commonwealth of Pennsylvania and includes the date and time of the incident, the class of emergency, and the EAL. Appropriate identification of the caller and time of the notification are also provided.

Follow-up messages will be provided as directed by EIPs.

**5.4 NRC EVENT NOTIFICATION**

The NRC Operations Center will be notified immediately following notification of the appropriate state and LOCAL GOVERNMENT AGENCIES, and not later than 60 minutes after the time of initial emergency DECLARATION, escalation, termination or entry into the recovery phase via the Event Notification System (ENS). Notification to the NRC is the responsibility of the ED.

**5.5 SUPPORT ORGANIZATIONS**

Medical, local law enforcement agency, and firefighting support services are notified for assistance via the public 9-1-1 system, using the commercial telephone, as the situation dictates. Cellular or satellite phones may be used as the back-up means of communication.



**6.0 EMERGENCY COMMUNICATIONS**

*Planning Standard 50.47(b)(6) (as exempted in Reference 3.20) – Provisions exist for prompt communications among principal response organizations to emergency personnel.*

Provisions exist for prompt communications between principal response organizations and EMERGENCY RESPONSE PERSONNEL. The communications systems listed in Table 6-1 provide 24-hour ONSITE and OFFSITE communications capability. Communication systems are tested to verify proper operation at the testing frequency specified in Table 6-1. Communication systems that are listed with a testing frequency of “Frequent Use” indicates that the associated equipment is normally used at a sufficiently high regularity (e.g., multiple times each day), such that separate additional testing is not needed. Functionality is verified through normal (frequent) use of the system.

**TABLE 6-1  
Communication Systems**

Communication System	Testing Frequency
Commercial telephone system	Frequent Use
Portable radios	Frequent Use
NRC FTS Network (ENS)	Monthly
Mobile communications devices (cellular or satellite phones)	Quarterly*

\* Performance of drill requirements specified in Part II, Section 14, satisfies the testing frequency

**7.0 PUBLIC INFORMATION**

*Planning Standard 50.47(b)(7) (as exempted in Reference 3.20) – The principal points of contact with the news media for dissemination of information during an emergency are established in advance, and procedures for coordinated dissemination of information to the public are established.*

As the principle point of contact for the dissemination of information during an event at the TMI, Constellation Corporate Communications Department personnel will be notified of a declared emergency. Corporate Communications Department will monitor media activity and coordinate with senior management disseminating public information per communication protocols. As necessary, news conference(s) can be conducted at the site or other coordinated location. Corporate Communications Department personnel, or senior TMI management will represent the facility as the spokesperson. If an event occurs at the TMI, information will be disseminated to the public in a timely manner.

The Corporate Communications Department personnel address any misinformation related to a declared emergency.

## 8.0 EMERGENCY FACILITY AND EQUIPMENT

*Planning Standard 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.*

This section of the Plan identifies and describes the emergency response facilities, the communication systems, the assessment facilities and equipment, the first aid and medical facilities, and protective equipment and supplies that can be utilized during an emergency.

### 8.1 EMERGENCY RESPONSE FACILITY

EMERGENCY RESPONSE FACILITY (ERF) is staffed in accordance with Part II, Section 2.0, and provides availability of communications systems as specified in Part II, Section 6.0. The ERF is open on a continuous basis. There is no activation needed.

The emergency COMMAND AND CONTROL functions are managed within the ERF. Within the ERF, the ED (or other personnel as directed) can assess conditions, evaluate the magnitude and potential consequences of abnormal conditions, initiate preventative and CORRECTIVE ACTIONS; and perform notifications.

Radiological conditions as a result of DBAs specified in the ISFSI storage system FSARs do not inhibit staffing of the ERF.

### 8.2 EMERGENCY EQUIPMENT

This section describes the monitoring instruments used to initiate emergency measures and provide continuing assessment of conditions throughout the course of an emergency.

#### 8.2.1 PORTABLE RADIATION AND CONTAMINATION MONITORING INSTRUMENTS

Portable radiation and contamination monitoring instruments and sampling equipment normally utilized and maintained by the radiation protection personnel and are available for emergency use.

#### 8.2.2 COMMUNICATION SYSTEMS

Communication systems are identified and tested as described in Part II, Section 6.

#### 8.2.3 EMERGENCY SUPPLIES

Emergency equipment and supplies necessary to carry out the provisions of the IOEP and EIPs are maintained at the ERF. Emergency kits are maintained in accordance with the EIPs and contain self-reading dosimeters. Sufficient reserves of instruments/equipment are provided to replace those which are removed from emergency kits for calibration or repair. Calibration of instruments has been established at intervals recommended by instrument suppliers, or as required by Federal regulations.

8.2.4 FIRST AID FACILITIES

First aid supplies and equipment are located at the TMI ERF. Qualified personnel are available 24 hours per day to provide medical treatment as referenced in Part II, Section 12.

## 9.0 ACCIDENT ASSESSMENT

*Planning Standard 50.47(b)(9) (as exempted in Reference 3.20) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential consequences of a radiological emergency condition are in use.*

The ASSESSMENT ACTIONS required to evaluate a particular emergency depend on the specific nature and CLASSIFICATION of the emergency. The ED is responsible for the initial measurement of ISFSI DOSE RATES after an off-normal, natural phenomenon, or accident event. The EALs identify the parameter value to determine the emergency condition. CLASSIFICATION of events is performed by the ED in accordance with the EAL scheme.

If the measured ISFSI DOSE RATES exceed the EAL threshold, the ED then performs a radiological release assessment in the vicinity of the affected storage module or cask. After completing the assessment, the ED contacts the Resource Manager to assist in interpreting the radiological release assessment results.

Notification of a radiological release assessment is in accordance with Part II, Section 5.0.

## 10.0 PROTECTIVE ACTIONS

*Planning Standard 50.47(b)(10) (as exempted in Reference 3.20) – A range of protective actions has been developed for emergency workers and the public.*

PROTECTIVE ACTIONS for ONSITE personnel are provided for their health and safety. Implementation guidelines for ONSITE PROTECTIVE ACTIONS are provided in EIPs.

Additionally, the EIPs provide for a range of PROTECTIVE ACTIONS (e.g. relocation of personnel and personnel take cover) to protect ONSITE personnel during HOSTILE ACTIONS.

### 10.1 SITE EGRESS CONTROL METHODS

All non-ESSENTIAL PERSONNEL are evacuated from the facility at the discretion of the ED. In the event of a suspected radiological release, personnel are monitored for radioactive contamination prior to leaving the facility. Portable radiation survey meters are available to monitor for potential contamination.

### 10.2 FIRE FIGHTING

Strategies have been developed for firefighting and fire protection in specific critical areas of the facility. The Fire Protection Program describes the fire protection organization and individual responsibilities.

### 10.3 ACCOUNTABILITY

ACCOUNTABILITY should be considered and used as a PROTECTIVE ACTION whenever a site wide risk to health or safety exists and prudence dictates. If personnel ACCOUNTABILITY is required, at the direction of the ED all individuals at the site (including employees without emergency assignments, visitors, and contractor personnel) shall be notified of the emergency.

ACCOUNTABILITY of all personnel inside the ISFSI PROTECTED AREA (PA) should be accomplished within 60 minutes of the ACCOUNTABILITY announcement (provided ACCOUNTABILITY is still determined to be necessary). If personnel are unaccounted for, teams shall be dispatched to locate the personnel. ACCOUNTABILITY may be modified or suspended if the safety of personnel may be jeopardized by a Security event or other event hazardous to personnel.

Non-ESSENTIAL PERSONNEL located outside of the ISFSI PA but within the SITE BOUNDARY will be directed to report to an assembly area or exit the site, as appropriate.

The ED is responsible for controlling access to the site when the IOEP is activated.

## **11.0 RADIOLOGICAL EXPOSURE CONTROL**

*Planning Standard 50.47(b)(11) – Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.*

### **11.1 EXPOSURE GUIDELINES**

TMI maintains a radiological exposure control program to assure that protection against radiological exposure, as set forth in 10 CFR Part 20 is provided. This program is implemented through the radiological protection procedures which cover both normal and emergency radiation protection measures.

Means for controlling radiological exposures in an emergency are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides in EPA-400-R92-001 (EPA-400).

During an emergency, DOSES above normal occupational radiation exposure limits may be authorized by the ED (non-delegable responsibility) for activities such as saving a life, preservation of valuable equipment or controlling exposure. Table 11-1 contains the guidelines for emergency exposure criteria, which is consistent with the EPA-400 Table 2-2, "Guidance on Dose Limits for Workers Performing Emergency Services".

### **11.2 RADIATION PROTECTION**

The purpose of a Radiation Protection Program is to assure that radiation DOSES received by personnel are kept as low as reasonably achievable (ALARA) and do not exceed the prescribed limits for both normal and emergency conditions. The established measures to provide this assurance include access control, personnel monitoring, and contamination control.

### **11.3 ACCESS CONTROL**

During a declared emergency, radiological surveys of the ISFSI area will be performed to determine the actual extent of the radiological conditions. As necessary, the ED will ensure RCAs and access controls are established to prevent personnel from entering the area. Recovery and CORRECTIVE ACTIONS will be planned and executed in a manner that minimizes exposure to personnel.

### **11.4 PERSONNEL EXPOSURE MONITORING**

Personal dosimeters are utilized to monitor the exposure of personnel during normal or emergency conditions. Emergency workers will receive Dosimeter of Legal Record (DLR) badges and personal self-reading dosimeters capable of measuring expected exposures on a real time basis. Adequate supplies of dosimeters are maintained for use during an emergency. Procedures

describe in detail the types of personal dosimeter devices, the manner in which they are to be used, who is to wear them, and how they are to be cared for.

Emergency worker DOSE records are maintained in accordance with facility procedures.

### **11.5 CONTAMINATION CONTROL**

Various contamination control measures are utilized. These include access control measures and means for the DECONTAMINATION of personnel, areas, and equipment. These activities are addressed in facility procedures and are briefly described below.

All personnel are monitored for radioactive contamination prior to leaving the RCA. During normal or emergency conditions, contamination should be removed from any part of a person's body prior to their leaving the RCA. All personnel DECONTAMINATION, even during an emergency, will be performed under the supervision of personnel trained in radiological monitoring and assessment and in accordance with established procedures.

Portable contamination monitoring instruments are available to frisk personnel for potential contamination.

Documentation of surveys, contamination, and DECONTAMINATION activities shall be maintained in accordance with facility procedures.



**Table 11-1  
Emergency Worker Guidelines**

<b>Guideline DOSE Limit (Rem TEDE)</b>	<b>Activity</b>	<b>Condition</b>
5	All	Personnel should be kept within normal 10 CFR 20 limits during bona fide emergencies, except as authorized for activities as indicated below.
10	Protecting valuable property	Lower DOSE not practicable.
25	Lifesaving or protection of large populations	Lower DOSE not practicable.
> 25	Lifesaving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved.

Limit DOSE to the lens of the eye to 3 times the above values and DOSES to any other organ (including skin and body extremities) to 10 times the above values.

## **12.0 MEDICAL AND HEALTH SUPPORT**

*Planning Standard 50.47(b)(12) – Arrangements are made for medical services for contaminated injured individuals.*

Medical assistance is available ONSITE and OFFSITE for treatment of TMI personnel. Various means of transportation are available to transport individuals for radiological and non-radiological injuries.

The individuals and organizations providing emergency medical assistance as identified in this section either have the capability for evaluation of radiation exposure and uptake or they are provided this capability from Constellation in the form of personnel and/or equipment. Constellation assures that persons providing these services are adequately prepared to handle contaminated individuals through detailed training classes, drills and EXERCISES. Letters of Agreement with OFFSITE organizations and individuals for medical support are listed in Appendix C.

### **12.1 ONSITE FIRST AID**

First aid assistance at TMI is designed to handle a wide range of injuries. This task is accomplished by ONSITE individuals trained in basic first aid procedures.

### **12.2 MEDICAL TRANSPORTATION**

Transportation of injured personnel is available via local emergency medical services, TMI vehicles, or private vehicles. When personnel are transported to the Hershey Medical Center (HMC) while in a contaminated condition, a person trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

### **12.3 OFFSITE MEDICAL SUPPORT**

HMC has medical facilities capable of handling various types of injuries. HMC are capable of treating patients with injuries of a non-radiological or radiological nature. When personnel are transported to OFFSITE medical facility while in a contaminated condition, a person trained in radiological monitoring will be dispatched to monitor and maintain radiological controls.

**13.0 EMERGENCY TERMINATION AND RECOVERY**

*Planning Standard 50.47(b)(13) – General plans for recovery and reentry are developed.*

Constellation has established general plans described in the following sections to conduct recovery from potential emergencies at TMI. The recovery organization will be based on the normal TMI organization and would function with the senior management position being responsible for site activities.

**13.1 EMERGENCY TERMINATION AND NOTIFICATION**

Termination of an emergency status is the responsibility of the ED. The ED is also responsible for providing notification of the emergency termination and initiation of recovery operations to the NRC, State and LOCAL GOVERNMENT AGENCIES, the TMI ERO and other organizations that may be providing ONSITE support.

**13.2 RECOVERY OPERATIONS**

Recovery operations begin immediately following emergency termination and will address the specific emergency circumstances. Recovery planning includes equipment to be repaired or replaced, licensing implications, special training requirements, OFFSITE support, and determination of causes and consequences. Site procedures addressing Recovery operations provide an outline for a short-term recovery plan.

The senior management position shall be responsible for the development and implementation of the recovery plan and shall provide for detailed monitoring of the implementation and status reporting. The senior management position also has the authority to revise or halt activities as circumstances dictate.

The ISFSI recovery will be terminated by the TMI senior management position after the ISFSI has been returned to a stable condition.

**14.0 EXERCISE AND DRILLS**

*Planning Standard 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.*

**14.1 EXERCISE AND DRILL**

BIENNIAL EXERCISES shall be conducted to test the timing and content of implementing procedures and methods; to test emergency equipment and communication networks; and to ensure that emergency personnel are familiar with their duties. TMI offers the following organizations the opportunity to participate to the extent assistance would be expected during an emergency DECLARATION; however, participation is not required:

1. Commonwealth of Pennsylvania
2. Local Hospitals
3. Local Fire Departments
4. Law Enforcement
5. Ambulance Service

At least one drill involving a combination of some of the principal functional areas of emergency response shall be conducted in the interval between BIENNIAL EXERCISES.

Communication checks with OFFSITE agencies, fire drills, medical drills, radiological monitoring drills and health physics drills are performed as indicated in the following sections.

EXERCISE and drill scenarios are developed to provide reasonable assurance that anticipatory responses will not result from preconditioning of participants. EXERCISE and drill scenarios, as appropriate, emphasize coordination among ONSITE and OFFSITE response organizations. The scenarios for use in EXERCISES and drills include, at a minimum, the following:

- Basic objective(s) and appropriate evaluation criteria,
- Date(s), time period, place(s), and participating organizations,
- Simulation lists,
- Time schedule of real and simulated initiating events,
- Narrative summary describing the conduct of the EXERCISES or drills to include such things as simulated casualties, OFFSITE fire department assistance, search and rescue of personnel, use of protective clothing, and
- List of controllers and participants.

In accordance with applicable portions to Section IV.G to NSIR/DPR-ISG-01, the scenario will vary from year to year.

The scenarios are designed to allow free play in exercising the decision-making process associated with such emergency response actions as exposure control, emergency CLASSIFICATION, and the ERO and additional staff augmentation process.

Starting times and pre-notification for EXERCISES are coordinated with and agreed upon by all participating organizations.

## **14.2 EQUIPMENT AND PROFICIENCY DRILLS**

Drills are conducted to provide supervised instruction, training and practice opportunities for ERO members. Drills may be performed as part of the BIENNIAL EXERCISE, INTEGRATED DRILL or as an independent drill. A drill may be a component of an EXERCISE. Drills are supervised and evaluated by qualified personnel. Drills are conducted, in addition to the EXERCISE at the frequencies indicated below:

### **14.2.1 COMMUNICATION DRILLS**

A communications drill with State and LOCAL GOVERNMENT AGENCIES is conducted ANNUALLY. A communications drill with NRC Headquarters is conducted ANNUALLY. Communication drills include the aspect of understanding the content of messages.

### **14.2.2 FIRE DRILLS**

Fire drills are conducted in accordance with TMI Fire Protection Program.

### **14.2.3 SECURITY DRILLS**

Security drills will be conducted in accordance with the TMI Security Plan.

### **14.2.4 MEDICAL EMERGENCY DRILLS**

A medical emergency drill, involving a simulated contaminated individual, which contains provisions for participation by local support services organizations (i.e., ambulance and support hospital), is conducted ANNUALLY. The OFFSITE portions of the medical drill may be performed as part of the required BIENNIAL EXERCISE or INTEGRATED DRILL.

### **14.2.5 RADIATION PROTECTION DRILLS**

A Radiation Protection drill to demonstrate radiation monitoring personnel's ability to perform radiological survey and assessment will be conducted ANNUALLY.

### **14.2.6 AUGMENTATION DRILL**

An unannounced augmentation drill is conducted ANNUALLY. This drill involves implementation of the ERO callout system procedure and documentation of the estimated response time for each responder. This drill demonstrates the capability to augment the ED after an emergency is declared.

**14.2.7 CRITIQUE AND EVALUATION**

A critique will be performed as soon as practicable after drills and EXERCISES to evaluate the ability of the participating organizations to respond as indicated in this IOEP. The ability of EMERGENCY RESPONSE PERSONNEL to self-evaluate weaknesses and identify areas for improvement is the key to successful EXERCISE / drill conduct.

EXERCISE and drill objectives are evaluated against measurable demonstration criteria. Following the conclusion of each EXERCISE or drill, a critique, including participants and evaluators, is conducted to evaluate the ability of the ERO to implement the IOEP and its implementing procedures.

A formal evaluation in the form of a written critique report is prepared following an EXERCISE or drill involving the evaluation of designated objectives. The report evaluates and documents the ability of the ERO to respond to a simulated emergency situation. The report will also contain reference to corrective action program documents and recommendations. The Emergency Preparedness Specialist is responsible for ensuring that items identified in the critique are correctly dispositioned, appropriate assignment of responsibility is made, and that corrective actions are implemented in accordance with the corrective action program.

**15.0 RADIOLOGICAL EMERGENCY RESPONSE TRAINING**

*Planning Standard 50.47(b)(15) – Radiological emergency response training is provided to those who may be called on to assist in an emergency.*

**15.1 EMERGENCY RESPONSE PERSONNEL TRAINING**

Requirements for EMERGENCY PREPAREDNESS training are specified in the EMERGENCY PREPAREDNESS Training Program. This program identifies the level and the depth to which individuals are to be trained.

**15.2 EMERGENCY PREPAREDNESS TRAINING PROGRAM**

The training for ERO personnel is developed from the position-specific responsibilities as defined in this IOEP. Members of the ERO receive initial training and ANNUAL retraining. They also receive recurring Emergency Plan-related training ANNUALLY through General Employee Training and position-specific training as appropriate.

Specific training requirements for ERO, supplemental, and support personnel are delineated below:

**15.2.1 ISS/EMERGENCY DIRECTORS AND RESOURCE MANAGERS**

Trained such that proficiency is maintained on the topics listed below. These subjects shall be covered as a minimum initially and on an ANNUAL basis.

- Emergency CLASSIFICATION
- State and LOCAL GOVERNMENT AGENCIES, and NRC notifications
- ERO activation
- DOSE RATE meter operation
- Radiological release assessment
- Emergency exposure control
- PROTECTIVE ACTIONS for ONSITE personnel
- ISFSI DBAs and Accident Assessment
- Review of applicable drill identified deficiencies and Human Performance Concerns

**15.2.2 RADIOLOGICAL ASSESSMENT PERSONNEL**

Individuals trained in performing radiological monitoring and assessment may be called to supplement the ERO. Training is provided in accordance with the approved training program.

**15.2.3 MEDICAL SUPPORT PERSONNEL**

HMC personnel are invited to receive training, as outlined in Part II, Section 15.3.

**15.2.4 SECURITY AND LAW ENFORCEMENT PERSONNEL**

Station Security personnel are trained in accordance with the Security Plan. Local Law Enforcement Agency support personnel are invited to receive training, as outlined in Part II, Section 15.3.

**15.2.5 FIRST AID AND RESCUE TEAMS**

Selected individuals assigned on-shift ERO responsibility receive first aid training equivalent to Red Cross Adult First Aid/CPR/AED). Station personnel are trained to report any injury or medical emergency to the ISS, then provide first aid treatment within their level of competency. Responding support personnel are invited to receive training as outlined in Part II, Section 15.3.

**15.2.6 OTHER PERSONNEL**

Personnel who are badged for unescorted access to the ISFSI PA receive initial and ANNUAL refresher training on general facility procedures and policies. This training includes required actions to be taken if an emergency is declared at TMI.

Personnel assigned to work at the station who do not require unescorted access to the ISFSI PA, including visitors, receive information on the actions to be taken if an emergency is declared at TMI.

**15.3 SUPPORT ORGANIZATIONS TRAINING**

Annual training is made available to non-TMI support organizations, that may be called upon to provide assistance in the event of an emergency (e.g. firefighting, medical services, transport of injured, etc.).

The training made available is structured to meet the needs of that organization with respect to the nature of their support. Training topics such as event notification, basic radiation protection, and interface activities between the OFFSITE organization and TMI are made available.



## 16.0 MAINTAINING EMERGENCY PREPAREDNESS

*Planning Standard 50.47(b)(16) – Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.*

### 16.1 EMERGENCY PREPAREDNESS RESPONSIBILITIES

#### 16.1.1 ISFSI SENIOR MANAGEMENT POSITION

Constellation is responsible for the maintenance of TMI EMERGENCY PREPAREDNESS Program. The issuance and control of this Plan and the activities associated with EMERGENCY PREPAREDNESS at TMI shall be the overall responsibility of the TMI-1 ISFSI senior management position.

#### 16.1.2 EMERGENCY PREPAREDNESS SPECIALIST POSITION

The overall Emergency Plan is maintained by Corporate Emergency Preparedness.

The specific responsibilities include, but are not limited to, the following:

- Maintaining and updating this IOEP and associated procedures, and documenting reviews and revisions
- Overseeing the EMERGENCY PREPAREDNESS Training Program and ensuring that proper records are maintained to document training of the ERO, and ensuring that the ERO is notified of updates to the IOEP or EPIPs
- Overseeing and documenting the EMERGENCY PREPAREDNESS drill and EXERCISE Program
- Documenting and maintaining the EMERGENCY PREPAREDNESS facilities and equipment
- Documenting and maintaining the EMERGENCY PREPAREDNESS interfaces with OFFSITE agencies by (a) ensuring that all the Letters and Memoranda of Agreement with support organizations are reviewed ANNUALLY and updated as needed; and (b) ensuring that the OFFSITE Response Organizations are notified of updates to the IOEP
- Performing and documenting appropriate evaluations of the EMERGENCY PREPAREDNESS Program and of declared emergency events
- Ensuring an independent review of the EMERGENCY PREPAREDNESS Program is conducted to meet the requirements of 10 CFR 50.54(t).

Individuals assigned the duties of maintaining the IOEP maintain an adequate knowledge of regulations, planning techniques, and the latest applications of emergency equipment and supplies. All recommendations for changes to this document or associated implementing procedures are reviewed in accordance with 10 CFR 50.54(q) and 72.44(f), by individuals trained in performing such evaluations.

**16.2 REVIEW AND UPDATING OF THE IOEP AND SUPPORTING PROCEDURES**

It is important that a state of EMERGENCY PREPAREDNESS be maintained at all times. The IOEP is reviewed ANNUALLY and updated, as needed. The ANNUAL IOEP review/update includes required changes identified during 10 CFR 50.54(t) reviews, assessments, training, drills, and EXERCISES.

Any needed changes shall be incorporated in the IOEP, IOEP Emergency Action Level Technical Bases Manual, and appropriate implementing procedures. The IOEP, IOEP Emergency Action Level Technical Bases Manual, and EIPs are distributed on a controlled basis.

Changes to the IOEP, IOEP Emergency Action Level Technical Bases Manual, and EIPs are subject to evaluation under 10 CFR 50.54(q) and 10 CFR 72.44(f).

**16.2.1 EALS STATE AND LOCAL GOVERNMENT AGENCY REVIEW**

The EALs shall be made available for review with State and LOCAL GOVERNMENT AGENCIES ANNUALLY.

**16.2.2 EMERGENCY RESPONSE DIRECTORY**

Names and telephone numbers of the ERO, supplemental personnel, and applicable supporting OFFSITE organizations shall be reviewed and updated at least QUARTERLY.

**16.2.3 LETTERS AND MEMORANDA OF AGREEMENT**

Every two years, each Letter or Memorandum of Agreement with support organizations is reviewed and verified current in order to assure the availability of assistance from each supporting organization.

**16.3 MAINTENANCE AND INVENTORY OF EMERGENCY EQUIPMENT AND SUPPLIES**

Periodic inventory, testing, and calibration of emergency equipment and supplies are conducted in accordance with EIPs. This equipment includes, but is not limited to:

- Portable radiation monitoring equipment
- Emergency medical response equipment
- Dosimeters
- Portable radios

Emergency equipment and instrumentation shall be inventoried, inspected and operationally checked periodically as indicated by the EIPs and after each use. Sufficient reserves of equipment and instrumentation are stocked to replace emergency equipment and instrumentation removed from service for calibration and/or repair.

**PART III****APPENDIX A****CROSS REFERENCE IOEP SECTION TO  
PLANNING STANDARDS / REQUIREMENTS / CRITERIA AND PROCEDURES**

<b>IOEP Part II Section</b>	<b>Planning Standard (10 CFR 50.47)</b>	<b>Planning Requirement (Appendix E.IV)**</b>	<b>NUREG- 0654, Section II Evaluation Criteria</b>	<b>Procedure</b>
1.0	(b)(1)*	A.1*, 2, 4*, 7*	A	EP-TM-112
2.0	(b)(2)	A.1*, 2, 4*; C.1*	B	EP-TM-112
3.0	(b)(3)*	A.6, 7*	C	EP-TM-112
4.0	(b)(4)*	B.1*, 2; C.1*, 2*	D	EP-TM-1002 Add. 1 EP-TM-111
5.0	(b)(5)*	A.6, 7*; C.1*; D.1*, 3*; E*	E	EP-TM-114
6.0	(b)(6)*	C.1*; D.1*, 3*; E*	F	EP-AA-121, EP-AA-124
7.0	(b)(7)*	Exempted*	G	EP-TM-112
8.0	(b)(8)	E*; G	H	EP-AA-121, EP-AA-124
9.0	(b)(9)*	A.4*; B.1*; C.2*; E*	I	EP-TM-112-100
10.0	(b)(10)*	C.1*; E*	J	EP-TM-113
11.0	(b)(11)	E*	K	EP-TM-113
12.0	(b)(12)	A.6, 7*; E*	L	EP-TM-112
13.0	(b)(13)	H	M	EP-TM-115
14.0	(b)(14)	E9*; F*	N	EP-TM-122
15.0	(b)(15)	F*	O	TQ-TM-113
16.0	(b)(16)	G	P	EP-AA-120, EP-AA-124

\* Refer to the **TMI** exemptions from portions of 10 CFR 50.47 and Appendix E for applicability.

**APPENDIX B****INDEX OF EMERGENCY PLAN IMPLEMENTING PROCEDURES**

<b>Document</b>	<b>Document Title</b>
EP-TM-1002 Addendum 1	INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI) ONLY EMERGENCY ACTION LEVELS AND TECHNICAL BASES
EP-TM-111	EMERGENCY CLASSIFICATION
EP-TM-112	EMERGENCY RESPONSE ORGANIZATION ACTIVATION AND OPERATION
EP-TM-112-100	ISFSI OPERATIONS
EP-TM-113	PERSONNEL PROTECTIVE ACTIONS
EP-TM-114	NOTIFICATIONS
EP-TM-115	TERMINATION AND RECOVERY
EP-AA-120	EMERGENCY PLAN ADMINISTRATION
EP-AA-121	EMERGENCY RESPONSE FACILITIES AND EQUIPMENT READINESS
EP-TM-122	DRILLS AND EXERCISE PROGRAM
EP-AA-123	COMPUTER PROGRAMS
EP-AA-124	INVENTORIES AND SURVEILLANCES
TQ-TM-113	TRAINING AND QUALIFICATION FOR DECOMMISSIONING THREE MILE ISLAND ERO

**APPENDIX C**

**LETTERS of AGREEMENT**

**Letters with Corporate Constellation:**

Organization/Agreement Type

Department of Energy (DOE) Radiation Emergency  
Assistance Center/Training Site, REAC/TS (Letter on File)  
Medical Consultant

Environmental, Inc. (P.O.)  
Radiological Environmental Monitoring

Landauer, Inc. (P.O.)  
Emergency Dosimetry

Teledyne Brown Engineering (P.O.)  
Bioassay Analysis/Radiochemical Analysis

**Three Mile Island Specific Letters of Agreement**

The following is a listing of letters of agreement, memorandum of understanding, and contracts specific to emergency response activities in support of the TMI Station.

NOTE: While this list reflects letters of agreement currently in effect, it is possible that the list may change for a number of reasons. The EP Specialist will consider the impact that a loss of an agency will have on the emergency response process.

**1. Medical Support Organizations and Personnel**

- Londonderry Volunteer Fire Company (fire and ambulance service)
- South Central Emergency Medical Services Inc. (ambulance)
- Hershey Medical Center

**2. Firefighting Organizations**

NOTE: These are supplemented by Mutual Aid agreements with other firefighting as organizations.

- Bainbridge Volunteer Fire Company (Lancaster Co.)
- Middletown Volunteer Fire Department
- Londonderry Volunteer Fire Company (Primary)
- Elizabethtown Fire Department
- Lower Swatara Volunteer Fire Department
- Susquehanna Area Regional Airport Authority (SARAA)

**3. Law Enforcement Agencies**

- Pennsylvania State Police (letter of agreement maintained by Security)

**4. Local County Response Agencies**

- Pennsylvania Emergency Management Agency Memorandum of Understanding (MOU) (letter on file)

NOTE: Documentation of agreement for, Dauphin, and Lancaster, counties are contained as part of the agreement with PEMA.

**5. Other Agencies**

- Norfolk Southern Railway Company
- Londonderry Volunteer Fire Department (staging area)