

1055
Revision 2
09/26/83

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 ADMINISTRATIVE PROCEDURE 1055
MAINTAINING EMERGENCY PREPAREDNESS

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Rg Toole
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H. S. Hubel
Signature

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THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 ADMINISTRATIVE PROCEDURE 1055
MAINTAINING EMERGENCY PREPAREDNESS

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1.0 GENERAL

1.1 Purpose

This procedure delineates the requirements for maintaining emergency preparedness in TMI Unit 1.

1.2 Scope

This procedure applies to all phases of maintaining emergency preparedness in TMI Unit 1.

1.3 References

- 1.3.1 Emergency Plan, TMI Unit 1
- 1.3.2 Emergency Plan Implementing Document for TMI Unit 1
- 1.3.3 AP 1014, Administration of the On-site and Off-site Emergency Duty Roster
- 1.3.4 AP 1051, Emergency Planning Drills
- 1.3.5 AP 1052, Emergency Planning Training
- 1.3.6 AP 1053, Emergency Equipment Readiness Check List
- 1.3.7 AP 1038, Fire Protection Program Plan

2.0 RESPONSIBILITIES

2.1 The Manager, Plant Training, TMI-1 is responsible for the following:

- 2.1.1 Schedule training for all emergency response personnel on the Emergency Plan and Implementing Document.
- 2.1.2 Schedule all site personnel to receive basic familiarization with the TMI Emergency Plan.
- 2.1.3 Coordinate emergency training for all Off-site support agencies in accordance with reference 1.3.5 and 1.3.7.

- 2.1.4 Ensure that all formal Emergency Plan Training is properly documented.
- 2.1.5 Forward results of training and documentation to Emergency Preparedness Manager as requested.
- 2.1.6 Assistance to the Emergency Preparedness Department by providing drill observers.
- 2.2 The Fire Brigade Training Coordinator is responsible for the planning, scheduling and conduct of Quarterly Fire Brigade Drills in accordance with reference 1.3.7.
- 2.3. The Manager, Environmental Controls TM is responsible to:
 - 2.3.1 Provide assistance to the Emergency Preparedness Manager in conducting Radiation Emergency Exercises in accordance with reference 1.3.4.
 - 2.3.2 Ensure that the Environmental Assessment Command Center is maintained available and in readiness as per section 3.4.6.
- 2.4 The Manager, Industrial Safety and Health is responsible to:
 - 2.4.1 Provide assistance to the Emergency Preparedness Manager in conducting the medical Emergency Drill in accordance with reference 1.3.4.
 - 2.4.2 Ensure that first aid and medical equipment required for use in emergencies are available and in readiness.
 - 2.4.3 The Site Supervisor-Safety and Health is designated the responsibility to carry out these duties in the absence of the Manager, Industrial Safety and Health.

- 2.5 The Manager, QA Methods Program, Audits is responsible for auditing, at least on an annual basis, the TMI Emergency Plan and Implementing Document to verify compliance with the Operational Quality Assurance Plan, the Fire Protection Plan, internal rules and procedures, federal regulations, and operating license provisions.
- 2.6 The Plant Engineering Director, TMI-1 is responsible to ensure that the Technical Support Center is maintained available and in readiness as per section 3.4.2.
- 2.6.1 Provide assistance to the Emergency Preparedness Department by supplying drill observers and scenario assistance as requested.
- 2.7 The Director, Systems Engineering is responsible to ensure that the Parsippany Technical Functions Center is maintained available and in readiness as per section 3.4.7.
- 2.8 The Operations and Maintenance Director - TMI-1 is responsible to maintain the On-site Emergency Organization Duty Roster current in accordance with reference 1.3.3.
- 2.8.1 Provide assistance to the Emergency Preparedness Department by supplying drill observers and scenario assistance as requested.
- 2.9 The Manager, Radiological Controls, TMI-1 is responsible to:
- 2.9.1 Provide assistance to the Emergency Preparedness Manager in conducting the following as per reference 1.3.4.
- a. Radiation Emergency Exercise

- b. Radiological Controls Drill
 - c. Radiological Monitoring Drill
- 2.9.2 Ensure that radiological controls emergency equipment is maintained in accordance with reference 1.3.6.
- 2.9.3 Ensure that the Operations Support Center and the Radiological Assessment Coordinators area of the ECC are maintained available and in readiness as per sections 3.4.3 and 3.4.1 respectively.
- 2.9.4 Provide assistance to the Emergency Preparedness Department by supplying drill observers and scenario assistance as requested.
- 2.10 The Manager, Plant Maintenance is responsible to:
- 2.10.1 Provide assistance to the Emergency Preparedness Manager in conducting Repair and Damage Control Drills in accordance with reference 1.3.4.
 - 2.10.2 Ensure that damage control equipment required for use in emergencies is available and in readiness.
- 2.11 The Site Emergency Preparedness Manager is responsible to:
- 2.11.1 Plan, schedule and coordinate all Emergency Plan related drills and exercises.
 - 2.11.2 Maintain the near-site Emergency Operations Facility in readiness as per section 3.4.4.
 - 2.11.3 Maintain the Annex Near-Site Emergency Operations Facility in readiness as per section 3.4.5.

- 2.11.4 Review the Emergency Plan training lesson plans and examinations for technical accuracy, and provide technical support of applicable training activities.
- 2.11.5 Audit Emergency Preparedness records and documents at least annually and submit results to the following:
 - a. Manager, Emergency Preparedness
 - b. Operations and Maintenance Director, TMI-1
 - c. Vice President, TMI Unit 1
- 2.11.6 Maintain current the following:
 - a. Action Item Tracking system
 - b. Drill Scenario file
 - c. Off-site Emergency Organization Duty Roster
 - d. Emergency Plan
 - e. Emergency Preparedness Task Scheduling System
 - f. Emergency Plan Implementing Document
- 2.12 The Manager, Plant Operations, TMI-1 is responsible to:
 - 2.12.1 Provide assistance to the Emergency Preparedness Manager in conducting all drills and exercises in accordance with reference 1.3.4.
 - 2.12.2 Ensure that the Emergency Control Center is maintained available and in readiness as per section 3.4.1.
 - 2.12.3 Provide assistance to the Emergency Preparedness Manager in the performance of emergency communications tests as required by EPD-S0001 Emergency Communications Operability Test Procedure.

2.13 The Manager, TMI Information Management is responsible to:

- 2.13.1 Provide controlled copies of procedures and the Emergency Plan to facility coordinators as required in sub section 3.4.
- 2.13.2 Maintain current, up-to-day drawings and technical manuals at emergency facilities as required by sub-section 3.4:

3.0 REQUIREMENTS

3.1 Emergency Preparedness Drills

- 3.1.1 Drills and Exercises will be conducted following the guidelines of reference 1.3.4.
- 3.1.2 Drill Scenarios will be prepared for each drill and approved in accordance with reference 1.3.4. A file of these scenarios will be maintained by the Site Emergency Preparedness Manager.
- 3.1.3 Drill Packets shall be retained for at least one year with the Emergency Preparedness Dept. then forwarded to document controls for permanent storage.

3.2 Emergency Preparedness Training

- 3.2.1 Training on the Emergency Plan and its implementation shall be scheduled for all personnel at TMI Unit 1 as per reference 1.3.5.
- 3.2.2 Documentation of formal training provided shall be maintained by the training department.

3.3 Emergency Equipment Preparedness

- 3.3.1 Inventories, inspections and operability checks shall be performed on Emergency Preparedness Equipment in accordance with reference 1.3.6.
- 3.3.2 Emergency kit/locker key control shall be maintained by the Radiological Controls Department with duplicates maintained in the Emergency Control Center.

3.4 Emergency Response Facilities

NOTE: The individuals identified below or their designee shall inventory the facilities against the appropriate enclosure(s) at least quarterly and after each drill or emergency affecting those facilities. These inventories shall be documented in Enclosure 8 and sent to the Emergency Preparedness Department.

- 3.4.1 The Emergency Control Center (ECC) shall be maintained by the Manager, Plant Operations TMI-1 to meet the requirements of Enclosure 1, Part A. The Radiological Assessment Coordinator (RAC) area shall be maintained by the Manager, Radiological Controls, TMI-1 to meet the requirements of Enclosure 1, Part B.
- 3.4.2 The Technical Support Center (TSC) shall be maintained by the Plant Engineering Director, TMI-1 to meet the requirements of Enclosure 2.
- 3.4.3 The Operations Support Center (OSC) shall be maintained by the Manager, Radiological Controls to meet the requirements of Enclosure 3.

- 3.4.4 The Near-site Emergency Operations Facility (NEOF) shall be maintained by the Emergency Preparedness Manager, to meet the requirements of Enclosure 4.
- 3.4.5 The Annex Near-site Emergency Operations Facility (AEOF) shall be maintained by the Emergency Preparedness Manager, to meet the requirements of Enclosure 5.
- 3.4.6 The Environmental Assessment Command Center (EACC) shall be maintained by the Manager, Environmental Controls TMI to meet the requirements of Enclosure 6.
- 3.4.7 The Participatory Technical Functions Center (PTFC) shall be maintained by the Director, Systems Engineering to meet the requirements of Enclosure 7.
- 3.5 Tracking Emergency Preparedness Requirements
 - 3.5.1 The Action Item Tracking System is designed to list Emergency Preparedness discrepancies and comments from whatever source, to assign responsibility for their resolution and to follow them through to completion.
 - a. The Action Item Tracking System shall be maintained by the Emergency Preparedness Manager.
 - b. Action items are determined from drill critiques, audits or inventories, are assigned tracking numbers, persons responsible for their resolution, and listed on a schedule. The status of these items are maintained in the Emergency Preparedness office.

- c. Computer Printouts, with response forms, will be forwarded weekly to all persons assigned responsibility until the item is reported complete or a resolution is made. The Action Item Computer System will then be updated.
- d. All responses are to be documented on an Emergency Preparedness Action Item Report Form. These responses are filed in the Emergency Preparedness office.
- e. Resolution of action items shall be reflected on the Action Item Schedule.

3.6 Emergency Preparedness Document Control

- 3.6.1 A file of drill scenarios shall be maintained by the Emergency Preparedness Manager. The format for drill scenarios shall be that delineated in reference 1.3.4.
- 3.6.2 Emergency Access Lists shall be maintained current and available to security site access personnel by the Emergency Preparedness Manager or his designee.
- 3.6.3 Off-site Emergency Organization Duty roster shall be maintained current and available by the Emergency Preparedness Manager.
- 3.6.4 The Emergency Plan will be controlled and revised in accordance with regulatory requirements and GPUNC policies.

- 3.6.5 Emergency Plan Implementing Procedures (EPIP's) will be controlled and revised to reflect the latest version of the Emergency Plan. Revisions which may impact upon the Radiological Controls Department will have the review of the Radiological Controls Department. All attempts will be made to resolve the comments and unresolved comments will be escalated to upper management as appropriate.

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ENCLOSURE ONE (Page 1 of 2)

A. Emergency Control Center (ECC)

1. Located in the Unit 1 Control Room and adjacent Shift Supervisor's Office.
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Operational Line in Shift Supervisor's Office.
 - b. Radiological Lines in Control Room and RAC area.
 - c. NRC Emergency Notification System (ENS) in Control Room and Shift Supervisor's Office.
 - d. Health Physics Network (HPN) in Shift Supervisor's Office.
 - e. Environmental Assessment Line in RAC area.
 - f. National Warning System (NAWAS) line in Control Room.
 - g. Emergency Director's Auto-Dialer in Shift Supervisor's Office.
 - h. Emergency Director's Hot-Line in Control Room.
 - i. Radio Communications.
3. Shall provide sufficient work areas for the following personnel:
 - a. Emergency Director
 - b. Emergency Communicator
 - c. Operations Coordinator
 - d. Radiological Assessment Coordinator
 - e. Radiological Assessment Engineers

ENCLOSURE ONE (Page 2 of 2)

4. Equipment will be maintained in the Emergency Locker in accordance with reference 1.3.6.
 5. In addition to documents normally in the Control Room, controlled copies of the Emergency Plan and Implementing Document shall be provided.
 6. Operating Materials shall be provided to include, but not limited to, the following:
 - a. Status Boards
 1. Emergency director/operations coordinator
 - b. Emergency directors log book
 - c. Phone listing
 - d. Office supplies
 - e. Log sheet holders, log sheets
- B. Radiological Assessment Coordinator (RAC) area
1. Located in the Unit 1 Control Room
 2. Operating Materials shall be provided to include, but not limited to, the following:
 - a. Status Boards
 - b. REMP maps
 - c. Appropriate logs and procedures
 - d. Calculation system (i.e., TRS-80)
 - e. Office supplies

ENCLOSURE TWO (Page 1 of 2)

Technical Support Center (TSC)

1. Located in the Control Tower Building, 322' elevation, beneath the Control Room.
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Operational Line
 - b. NRC Emergency Notification System
 - c. Parsippany/TMI Line
 - d. B and W Extension tie line
3. In addition to the emergency equipment required by AP 1053, the following operating materials shall be provided:
 - a. 4 desks, 4 tables, 10 chairs
 - b. Continuous Air Monitor
 - c. Area Radiation Monitor
 - d. Whiteboard with markers and erasers
 - e. Emergency Plan and EPIPs
 - f. Unit 1 FSA
 - g. Unit 1 Technical Specifications
 - h. Select Vendor Manuals
 - Diesel Generator, Reload Report, Physics Test Manual, CRDM Manual, Bailey ICS/NNI, RPS, and ESAS Manuals, Reactor Coolant Pump Manual
 - i. Engineering Handbooks (Electrical, Mechanical, Industrial Power)
 - j. Procedure Index
 - k. Operating Procedures (1100 Series)

ENCLOSURE TWO (Page 2 of 2)

Technical Support Center (TSC)

- l. Select Surveillance Procedures (ESAS, RPS, ICS, and NNI)
- m. Emergency Procedures (1202 Series)
- n. Abnormal Operating Procedures (1203 Series)
- *o. Select Plant or System Drawings
 - Series 001, 002, 012, 014, 015, 206, 208, 209, 302, 303,
304, and 660
- *p. Instrument List (SS 308-1 thru SS 308-249)
- q. Telecopier
- r. CRT Terminal with Printer
- s. Phone Listing
- t. General Office Supplies

: *NOTE: Drawings are controlled in accordance with AP 1001C. :
: Audits of drawings will be conducted and documented :
: in accordance with AP 1001C. :
:

ENCLOSURE THREE (Page 1 of 2)

Operations Support Center (OSC)

1. Located in the area of the Radiological Access Control Point on the 306' elevation of the Auxiliary Building.
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Operational Line.
 - b. Radiological Line.
 - c. NRC Emergency Notification System.
 - d. Radiological Controls Auto-Dialer.
3. Shall provide sufficient work areas or stand-by areas as required for the following personnel:
 - a. Operations Support Center Coordinator.
 - b. Emergency Maintenance Coordinator.
 - c. Radiological Controls Coordinator.
 - d. Chemistry Coordinator.
 - e. Industrial Safety and Health Representative.
4. Emergency equipment will be maintained in the Emergency Locker in accordance with reference 1.3.6.
5. Operating materials shall be provided to include, but not limited to, the following:
 - a. Status board
 - b. Emergency log book
 - c. Phone listing

ENCLOSURE THREE (Page 2 of 2)

Operations Support Center (OSC)

- d. Office Supplies
- e. Log sheet holders, log sheets
- f. Emergency Plan and Emergency Plan Implementing Document
- g. Radio base station

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ENCLOSURE FOUR (Page 1 of 2)

Near-Site Emergency Operations Facility (NEOF)

1. Located in the Training Center.
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Operational Line
 - b. Radiological Line
 - c. NRC Emergency Notification System Line
 - d. NRC Health Physics Network Line
 - e. Environmental Assessment Line
 - f. Parsippany/TMI Line
 - g. Emergency Director's Hot-Line
 - h. Radio communication with environmental and radiological field assessment teams.
 - i. Conventional telephone.
3. In addition to emergency equipment required per Reference 1.3.6, operating materials shall be provided to include, but not limited to the following:
 - a. One extension cord
 - b. One set of Unit 1 FSARs
 - c. One set of Unit 2 FSARs
 - d. Three four-drawer file cabinets
 - e. Nine folding tables
 - f. Two 6'-two door lockers
 - g. Fifty chairs
 - h. Two clocks

ENCLOSURE FOUR (Page 2 of 2)

Near-Site Emergency Operations Facility (NEOF)

- i. Three space dividers
- j. Six lamps (battery powered)
- k. Phone stands
- l. Twenty-four clipboards
- m. Seven communications logs and writing materials
- n. Twelve flashlights and batteries
- o. Eleven plant and facility status boards
- p. One set of Unit 1 and Unit 2 Operating Procedures
- q. Emergency Plan and Emergency Plan Implementing Document
- r. INPO Manual and Agreement Handbook
- s. TMI Evacuation Time Estimate
- t. CRT with printer and plant computer terminal
- u. Radio

ENCLOSURE FIVE (Page 1 of 2)

Annex Near-Site Emergency Operation Facility (AEOF)

1. Located in the office complex at Crawford Station.
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Operational Line
 - b. Radiological Line
 - c. Conventional Telephone
3. Shall provide sufficient work areas or standby areas as required for the following personnel:
 - a. Group Leader - Rad Con Support
 - b. Rad Con Support Personnel
 - c. Group Leader - Maintenance Support
 - d. Maintenance Support Personnel
 - e. Maintenance and Construction Manager
 - f. Group Leader - Security Support
 - g. Security Support Personnel
 - h. Personnel Monitoring Coordinator
 - i. Radiological Controls Manpower Superintendent
4. Shall provide areas for the following functions:
 - a. Badge issue
 - b. Training
 - c. TLD issue
 - d. Whole Body counting facility.

ENCLOSURE FIVE (Page 2 of 2)

Annex Near-Site Emergency Operation Facility (AEOF)

5. Equipment shall be provided in an Emergency Locker in accordance with reference 1.3.6.
6. Operating materials shall be provided to include, but not limited to, the following:
 - a. Three tables
 - b. Eight chairs
 - c. Phone cabinet
 - d. Log book
 - e. INPO Manual and Agreement Handbook
 - f. Activation Manual
 - g. 2 log sheet holders
 - h. Three status boards (Rad Data, operational, general)
 - i. Blackboard, chalk and eraser
 - j. Clock
 - k. Area map
 - l. Tech. drawing file list
 - m. Writing materials (pens, markers, etc.)
 - n. Radio
 - o. Emergency Plan and Emergency Plan Implementing Documents

ENCLOSURE SIX (Page 1 of 1)

Environmental Assessment Command Center (EACC)

1. Located in the Environmental Control Building at the Olmsted (Harrisburg International) Airport.
2. In addition to normal operation communications, the following lines of communication shall be provided:
 - a. Environmental Assessment Line
 - (1) dedicated line to RAC
 - (2) dedicated line to EOF
 - b. Conventional Telephone
 - c. Radio communications to field assessment teams
3. Shall provide sufficient work areas for the following personnel:
 - a. Environmental Assessment Coordinator
 - b. Environmental Assessment group
4. A status board shall be provided to the Environmental Assessment Coordinator.
5. In addition to equipment normally utilized by this facility a Geli detector shall be provided.
6. In addition to documents normally in the Environmental Control Building, controlled copies of the Emergency Plan and Implementing Document shall be provided.

ENCLOSURE SEVEN (Page 1 of 1)

Parsippany Technical Functions Center (PTFC)

1. Located at the GPU Nuclear offices in Parsippany, New Jersey
2. In addition to normal communications, the following lines of emergency communications shall be provided:
 - a. Parsippany/B and W Line
 - b. Parsippany/TMI Line
 - c. Conventional Telephone
3. Shall provide sufficient work areas for the following personnel:
 - a. Group Leader - Technical Support
 - b. Technical Support Staff
4. To provide the most up-to-date plant monitoring parameters, a CRT with printer and plant computer terminal will be installed to operate on a not-to-interfere-with-operations basis.
5. The PTFC Staff shall have ready access to entire Technical Library and shall be provided with controlled copies of the Emergency Plan and Implementing Document.
6. Additional documents and supplies specified by Tech Functions Procedure EP-033, "Operation of the Parsippany Tech. Functions Center" shall be available.

ENCLOSURE EIGHT (Page 1 of 1)

Facility Inventory Sheet

QTR/YR

Emergency Facility _____

Date _____

No Deficiencies _____ check

Deficiencies Found:
(List below)

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Signed _____
Dept. Head or designee

Send to:

Emergency Preparedness Dept.
Trailer 67
TMI-1

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IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.1
UNUSUAL EVENT

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THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.1
UNUSUAL EVENT

1.0 PURPOSE

The purpose of this procedure is to define the conditions that shall be regarded as an Unusual Event for Three Mile Island Nuclear Station (Unit 1) and to:

- a. Ensure necessary actions are taken to protect the health and safety of the public.
- b. Ensure necessary actions are taken to notify GPU-Nuclear management and offsite emergency response organizations.
- c. Mobilize the appropriate portions of the emergency response organization to initiate appropriate emergency actions.

The Emergency Director is responsible for implementing this procedure.

: NOTE: The Emergency Director is vested with certain author- :
: ity and responsibility that may not be delegated to :
: a subordinate. Included are: :
: A. Classification of an emergency event. :
: B. Approving and directing official notifications to :
: off-site agencies. :
: C. Approving and directing information releases to :
: the media. :
: D. Approving and, if possible, personally conveying :
: appropriate Protective Action Recommendations to :
: the Bureau of Radiation Protection. :
: E. Directing on-site evacuation at the Alert or :
: lower level emergency classification based on :
: potential hazard to non-essential personnel. :
: F. Authorizing emergency workers to exceed 10 CFR 20 :
: Radiation Exposure Limits. :
: G. Approving and directing deviation from establish- :
: ed operating procedures, emergency operating pro- :
: cedures, normal equipment operating limits or :
: technical specifications during attempts to con- :
: trol the emergency. (NOTE: It is imperative :
: that the Emergency Director consult to the ful- :
: lest extent practicable with the Parsippany Tech- :
: nical Functions Center in arriving at a decision :
: to deviate from prescribed procedures.) :
: -----

When the designated Emergency Support Director (ESD) arrives at the site and declares himself to be ready to assume that role, he will assume overall responsibility for management of the response to the accident and recovery operations. With activation of the ESD function, the ESD specifically will assume decision authority for Items C and D. However, decision authority for Items A, B, E, F and G will be retained by the Emergency Director (ED). Decisions on all of the listed actions normally will result from close and continuous consultation between the ESD and the ED and it is the responsibility of the ED to ensure the ESD is provided with the necessary information to arrive at timely and appropriate decisions. In the special case of event classification, the ESD shall retain the prerogative to overrule the ED if, in the judgement of the ESD, uncertainty or other considerations exist to the extent warranting classification of a higher level of emergency than that classified by the ED.

2.0 ATTACHMENTS

- 2.1 Attachment I, Unusual Event Notifications
 - 2.2 Attachment II, Emergency Status Report.
 - 2.3 Attachment III, Checklist for Notification of Significant Events
- Made in Accordance with 10 CFR 50.72.

3.0 EMERGENCY ACTION LEVELS

3.1 Radiological Controls and Containment Integrity

INITIATING CONDITION

INDICATION

- | | |
|---|---|
| 3.1.1 Radiological effluent technical specification limits being approached. | As indicated by a valid Alert alarm on RM-L7 or a high alarm on RM-A-5 low range. |
| 3.1.2 Valid, unanticipated ALERT alarms on any two or more area and/or process radiation monitors at the same time. | Any two or more radiation monitor ALERT alarms are received in the Control Room simultaneously. |
| 3.1.3 Valid Reactor Building Evacuation Alarm. | Receipt of a valid Reactor Building Evacuation Alarm. |
| 3.1.4 Loss of containment integrity requiring shutdown by technical specifications. | As indicated by a loss of the ability to meet any one of the conditions of Technical Specification Limiting Condition for Operation 3.6. |
| 3.1.5 Reactor coolant total activity $> 50 \mu\text{Ci/ml}$ but $< 3850 \mu\text{Ci/ml}$ and/or Dose Equivalent Iodine-131 $> 4 \mu\text{Ci/ml}$ but $< 300 \mu\text{Ci/ml}$ indicating possible fuel damage. | As indicated by either:
a. Reactor coolant activity as determined by sample and analysis.
b. RM-L1 Low $> 6 \times 10^4$ cpm but $< 1 \times 10^5$ cpm.
c. RM-L1 High $> 1 \times 10^3$ cpm but $< 2 \times 10^5$ cpm. |
| 3.1.6 Transportation of any contaminated or potentially contaminated, injured personnel from site to off-site medical facility. | As judged by the Shift Supervisor. |
| 3.2 Security | |
| 3.2.1 Security threat or attempted entry or attempted sabotage of the site (Owner Controlled Area). | Shift Supervisor's judgment, based on advice of the Security Duty Sergeant. |

INITIATING CONDITION

INDICATION

3.3 General Plant Status

- 3.3.1 Other plant conditions are in progress or have occurred which may indicate a potential degradation of the level of safety of the plant.

Whenever plant conditions warrant it, as judged by the Shift Supervisor/Emergency Director.

NOTE: In exercising the judgment as to the need for declaring an Unusual Event, uncertainty concerning safety status of the plant, the length of time the uncertainty exists, and the prospects for early resolution of ambiguities should be considered; i.e., uncertainty about the level of safety of the plant extending beyond a reasonable time period is a sufficient basis for declaring an Unusual Event.

3.4 Pressure, Temperature and Inventory Control

- 3.4.1 Exceeding primary system leak rate technical specification.

As indicated by any one of the following confirmed Reactor Coolant Leak Rates:

- a. Primary pressure Boundary (except OTSG tubes) Leak Rate > 0 GPM.
- b. Unidentified reactor coolant leakage > 1 gpm and < 50 GPM measured by Daily Leak Rate Test.
- c. Total Reactor Coolant Leakage > 10 GPM and < 50 GPM measured by Daily Leak Rate Test.
- d. Primary to Secondary Reactor Coolant Leakage > 1 GPM and < 50 GPM total through the steam generator tubes for BOTH generators measured by the Daily Leak Rate Test and validated as a primary to secondary leak.

INITIATING CONDITION

- 3.4.2 Abnormal coolant temperature and/or pressure.
- 3.4.3 Failure of a safety or relief valve in a safety related system to close following reduction of applicable pressure.

- 3.4.4 A reactor trip caused by either:
- a. Any reactor coolant pump failure.
 - b. Total loss of ability to feed OTSG.

- 3.4.5 Reactor trip followed by an unplanned automatic ECCS initiation.

3.5 Electrical Power

- 3.5.1 A sustained loss of offsite power resulting in a reactor trip.
- 3.5.2 A loss of On-site AC power capability resulting in a technical specification shutdown.

3.6 Instrumentation and Actuation Systems

- 3.6.1 Indications or alarms on process or effluent parameters not functional in control room to an extent requiring plant shutdown or other significant loss of primary and backup assessment or communication capability.

INDICATION

Operation with subcooling less than 30° or greater than 100° and substained.

Failure of the following to close:

- a. Pressurizer Safety Valve(s), Power Operated Relief Valve(s) or OTSG safety valve(s) as indicated by the acoustical valve monitoring or flow measuring equipment.
- b. OTSG Atmospheric Relief Valve(s) or Decay Heat System relief valve.

As indicated by reactor trip caused by a validated low-flow trip or by a total loss of feedwater.

Reactor trip alarm (F-1-1) followed by HP Injection Flow alarm (F-1-6).

As indicated by a reactor trip caused by loss of power.

As indicated by a loss of the ability to meet any of the conditions of Technical Specification Limiting Condition for Operation 3.7.2.

As indicated by a loss of indications, assessment or communications capability requiring plant shutdown by Technical Specification or as determined by the Shift Supervisor when assessment or off-site notification capabilities are hampered.

INITIATING CONDITION

3.6.2 Loss of engineered safety features or fire protection system function requiring shutdown by technical specifications (e.g. because of malfunction, personnel error or procedural inadequacy).

3.7 Natural or Man-made Phenomena

3.7.1 Natural phenomenon being experienced or projected beyond usual levels.

3.7.2 Other hazards being experienced or projected.

INDICATION

As indicated by a loss of the ability to meet any one of the conditions requiring shutdown of Technical Specification Limiting Conditions of Operation 3.3 or 3.18.

As indicated by any one of the following:

- a. A valid alarm on PRF-1-2 ($\geq .01g$) "Threshold Seismic Condition" indicating an earthquake.
- b. A projected river stage ≥ 302 ft. at the River Water In-take Structure (50 year flood level).
- c. A projected river stage < 272 ft. at the River Water Intake Structure (50 year low level).
- d. High winds gusting > 75 mph as indicated on Wind Speed Recorder (WDS-501) or National Weather Service prediction of tornado or hurricane force winds.

As indicated by any one of the following as judged by the Shift Supervisor.

- a. Onsite aircraft crash outside the protected area fence and not impacting permanent plant structures.
- b. Train derailment within the Exclusion Area.
- c. Unanticipated explosion detected near or onsite.
- d. Near or onsite toxic or flammable gas or liquid release which could affect the habitability required for normal plant operability.
- e. Turbine rotating component failure causing a Reactor trip.

INITIATING CONDITION

INDICATION

- | | |
|--|--|
| 3.7.3 Fire in a permanent plant structure which cannot be controlled by the fire brigade within 10 minutes of discovery. | Shift Supervisors judgement, based on advice of the fire brigade leader. |
| 3.7.4 Fire outside plant structures requiring offsite firefighting assistance to put the fire under control. | Shift Supervisors judgement, based on request of the fire brigade leader for offsite firefighting assistance. |
| 3.8 Reactivity Control | |
| 3.8.1 One Control Rod Stuck-Out, Stuck-In or Dropped, requiring shutdown by Technical Specifications. | As indicated by a loss of the ability to meet any of the conditions of Technical Specifications Limiting Conditions of Operation 3.5.2.2 for one control rod. |
| 3.8.2 Unanticipated positive reactivity insertion potentially degrading the level of safety of the plant. | As determined by the Shift Supervisor or as indicated by any one of the following: <ul style="list-style-type: none">a. An uncompensated operating reactivity change resulting in a valid high reactor coolant outlet temperature alarm.b. An unanticipated criticality.c. An inadvertent rod withdrawal at power operations resulting in a reactor trip.d. An inadvertent moderator dilution resulting in a valid high reactor coolant outlet temperature alarm and/or a Reactor trip. |

* These indications may be determined via instrumentation that will be installed or expanded as required by NUREG 0578 prior to restart.

4.0 EMERGENCY ACTIONS

Initials

4.1 Upon recognition that any of the action levels above have been reached or exceeded, the Shift Supervisor shall assume the duties of Emergency Director. (The event should be assessed and declared within ten (10) minutes of the occurrence.)

4.2 Announce to the Control Room personnel that _____
Name
has assumed the duties of Emergency Director. The Emergency Director shall periodically (approx. every hour) consult with the lead personnel of each area involved in the emergency, and discuss:

- a. Status of each area
- b. Immediate actions to be taken by each lead person
- c. Problem areas
- d. Recommendations on course of action

4.3 Announce, or have announced, the following message over the public address system (merged):

: NOTE: Turn on Whelen siren switch. :

"ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: AN UNUSUAL EVENT HAS BEEN DECLARED IN UNIT ONE. ALL MEMBERS OF THE ON-SHIFT EMERGENCY ORGANIZATION REPORT TO YOUR STATIONS. ALL OTHER PERSONNEL SHOULD CONTINUE WITH THEIR NORMAL DUTIES UNLESS FURTHER INSTRUCTION IS GIVEN. Give a brief description of the event and repeat the announcement.)

: NOTE: Turn off Whelen siren switch. :

- ____ 4.4 Assign a Communicator to make notifications to persons and/or agencies per Attachment I, Section I.
- ____ 4.5 Assign a Communications Assistant and direct him to perform all applicable steps of 1004.8.
- ____ 4.6 Contact the Duty Section Superintendent and discuss:
- a. Plant status
 - b. Which members of the Duty Section are required to augment the Onsite Emergency Organization.
- ____ 4.7 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented.
- ____ 4.8 If local services (fire, ambulance, police) are required, direct the Communicator to notify Dauphin County Emergency Operations Center and request the appropriate assistance. Notify security (N/S gate) to begin preparations to expedite entry of responding emergency personnel (Police/Fire Ambulance). Security should be advised to Dosimetry Badge Issuance.

:	<u>NOTE:</u>	If the Emergency Response personnel are required to	:
:		respond outside the protected area affected by a	:
:		radioactive plume, the Emergency Director or his	:
:		designee will direct the issuance of TLD's from the	:
:		North or South gate.	:

- ____ 4.9 If the emergency involves radiological problems, direct the Radiological Assessment Coordinator to implement Radiological Controls During Emergencies (1004.9).

- ____ 4.10 If changes in onsite or offsite radiation levels are expected, direct the Radiological Assessment Coordinator to:
- a. Dispatch offsite and/or onsite radiation monitoring teams in accordance with Emergency Plan Implementing Procedure 1004.10.
 - b. Implement Onsite Offsite Dose Projections procedure (1004.7).
- ____ 4.11 If personnel/vehicles are, or are suspected to be contaminated, have the RAC initiate the Personnel/Vehicle Monitoring and Decontamination procedure (1004.20).
- ____ 4.12 If additional resources or notifications are required, refer to Additional Assistance and Notification Procedure (1004.6).
- ____ 4.13 Assign an individual to complete Attachment II, Section I and give to the Radiological Assessment Coordinator to transmit to the Bureau of Radiation Protection.
- ____ 4.14 Direct the Radiological Assessment Coordinator to complete Attachment II, Section II to transmit to the Bureau of Radiation Protection if a radioactive release has occurred or is occurring.
- ____ 4.15 Stop all liquid and gaseous discharges that are in progress until an assessment of their impact is performed and specific approval is given to continue the release by the Emergency Director.
- ____ 4.16 Verify that communications and documentation are maintained per procedure Communications and Recordkeeping (1004.5).

- ____ 4.17 If applicable, direct the operations Coordinator to dispatch Emergency Repair/Operations personnel to investigate the identified problem area(s) in accordance with Emergency Repair/Operations procedure 1004.21.
- ____ 4.18 After 30 minutes from initial contact with PEMA, confirm that BRP verification has been made. If no verification, instruct the Communicator to proceed to Attachment I, Section 1.2.(d).
- ____ 4.19 If person(s) are injured or ill and are in a radiologically controlled area or are potentially contaminated, or if person(s) have received radiation exposure greater than 25 REM; direct the RAC to implement Emergency Plan Implementing Procedure 1004.16, Contaminated Injuries/Radiation Over-Exposure.
- ____ 4.20 If personnel have been exposed to I¹³¹ sufficient to cause a thyroid dose of greater than or equal to 25 RAD, direct the RAC to implement the Thyroid Blocking procedure Emergency Plan Implementing Procedure 1004.35.
- ____ 4.21 Based upon assessment of plant conditions, either close out the Unusual Event or escalate to a higher class of emergency.
- ____ a. If Recovery Phase criteria have been met (see Recovery Procedure 1004.24), but long term recovery operations are not necessary, close out the Unusual Event by directing the Communicator to perform the notifications in Attachment I, Section II.
- ____ b. If emergency action levels exceed those for an Unusual Event, escalate to a higher class, notify BRP on Radiological Line and make remaining notifi-

cations in accordance with the appropriate emergency procedure as specified in Step 5.1.

- ____ 4.22 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure 1004.14, Monitoring/Controlling Liquid Discharges For Normally Uncontaminated Systems.

5.0 FINAL CONDITIONS

- ____ 5.1 A higher class of emergency has been declared by the Emergency Director after meeting or exceeding an emergency action level of one of the higher classes and one of the following procedures is being implemented:
- a. Alert (1004.2)
 - b. Site Emergency (1004.3)
 - c. General Emergency (1004.4)
- ____ 5.2 The Unusual Event has been closed out since no recovery operations are required, or
- ____ 5.3 The Unusual Event can be shifted to a recovery mode by implementing the procedure Recovery Operations (1004.24).
- ____ 5.4 At the close of the Emergency, ensure that all logs, checklists, procedures and other documentation generated in the Control Room associated with the event are gathered and sent to the Emergency Preparedness Department for review and filing.

Date

Signature of Person Responsible for
Implementing Procedure

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL - The Communicator shall notify the following agencies and personnel, and update the Attachment I, Section II checklist for each notification.

1. DAUPHIN COUNTY EMERGENCY OPERATION CENTER

(If this is a reclassification notification, first notify BRP on the radiological line or 9-787-3720 then go to Item 3, Unaffected Control Room).

a. Telephone: 9-911 or 9-236-7976

b. Messages:

This is _____ at the Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an
Unusual Event at _____ hours, and (based upon
(time)

Emergency Director judgement, deliver one of the following statements):

1. We have not had a radioactive release

OR

2. We have had a radioactive release, but do not expect
this situation to result in detectable changes in
offsite radiation levels, OR

3. We have had a radioactive release, but do not know
if there will be detectable changes in offsite
radiation levels. We will be keeping the Bureau of
Radiation Protection (BRP) informed of the results of
our investigation, OR

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels but they are expected to be less than the levels calling for an alert. We will be keeping the Bureau of Radiation Protection informed.

c. Give a short non-technical description of the emergency and any potentially affected population and areas.

2. PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA)

(If this is a reclassification notification, go to Item 3, Unaffected Control Room).

a. Telephone: PEMA Dedicated Line (Use only during normal work hours 0800-1600 hrs., Monday - Friday) or 9-783-8150 (Use when the Dedicated Line is out of service or after normal work hours. A diverter forwards this after normal work hours call to the PEMA Duty Officer.)

: NOTE: If unable to contact, proceed to step 2.d. :

ATTACHMENT I SECTION I

INITIAL CONTACT

b. Message:

This is Three Mile Island Nuclear Station Unit 1 calling. We have an emergency. Give me the Operations Duty Officer. (When Duty Officer answers:)

This is _____ at the Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an Unusual Event at _____ hours. We request you
(time)

contact Bureau of Radiation Protection. Bureau of Radiation Protection call back should be made on the Radiological Line or 948-8069, 948-8071 or 944-0839.

(Based upon Emergency Director judgement, deliver one of the following statements):

1. We have not had a radioactive release, OR
2. We have had a radioactive release, but do not expect this situation to result in detectable changes in offsite radiation levels, OR
3. We have had a radioactive release, but do not know if there will be detectable changes in offsite radiation levels. We will be keeping the Bureau of Radiation Protection informed of the results of our investigation, OR

ATTACHMENT I SECTION I

INITIAL CONTACT

4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels, but they will be less than the levels calling for an Alert. We will be keeping the Bureau of Radiation Protection informed.
- c. Give a short non-technical description of the emergency, and any potentially affected populations and areas:
- _____
- _____
- _____
- d. If PEMA was unable to be contacted, contact Dauphin County; advise them that PEMA cannot be contacted and direct them to notify PEMA, BRP, and Lancaster, York, Lebanon, and Cumberland counties.
- e. Message verification:
- Expect Bureau of Radiation Protection (BRP) contact after PEMA notification. If no BRP confirmation is received within 30 minutes, notify PEMA of the situation. If unable to contact PEMA (line busy), call Dauphin County and notify them that BRP has not verified initial contact. Request Dauphin County to contact PEMA and/or BRP.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

3. UNAFFECTED CONTROL ROOM

- a. Telephone: 8066, 8067, 8068 or inter Control Room
Hot-Line
- b. MESSAGE:
Give a brief description of Plant Status to Shift Super-
visor.

4. INSTITUTE OF NUCLEAR POWER OPERATIONS

(Do not notify if this is a reclassification notification.)

- a. Telephone: 1-404-953-0904 or Contact TMI Site Operator
for assistance.

b. MESSAGE:

This is _____ at Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an
Unusual Event at _____ hours. (Give a brief
(time)
description of the emergency.)

5. Notify the following personnel/agencies if the emergency situation
is such that notification is deemed appropriate:

- a. Hershey Medical Center 9-534-8333 (Ask for Duty Nurse)

Notification to be performed per procedure 1004.16.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

b. Pennsylvania State Police 9-234-4051

MESSAGE:

This is _____ at the Three Mile Island Nuclear
(name/title)
Station Unit 1 calling. We have declared an Unusual
Event at _____ hours. We _____ had a
(time) (have/have not)
radioactive release. We require assistance as follows:
(State any assistance required).

c. Radiation Management Corporation

Emergencies (0800-1700) 73-1-215-243-2990
(1700-0800) 73-1-215-841-5141
Office (0800-1700) 73-1-215-243-2950

MESSAGE:

This is _____ at the Three Mile Island Nuclear
(name/title)
Station Unit 1 calling. We have declared an Unusual Event
at _____ hours. (Give a brief description of the
(time)
emergency).

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

We _____ had a radioactive release. We require
(have/have not)

the following assistance: (State any assistance
required.)

- d. American Nuclear Insurers 74-1-203-677-7305 or
9-1-800-243-3172/3173
(after normal working hours)

MESSAGE:

This is _____ at the Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an

Unusual Event at _____ hours. (Give a brief
(time)

description of the emergency).

6. NUCLEAR REGULATORY COMMISSION OFFICE Bethesda, MD.

(Communications with the NRC will be continuously maintained
following contact.)

- a. Telephone: Emergency Notification System (ENS) (RED PHONE)
(If ENS Phone is inoperative, refer to Emergency Plan
Implementing Procedure 1004.6, "Additional Assistance and
Notification" for alternate methods).

ATTACHMENT I SECTION I

INITIAL CONTACT

b. MESSAGE:

: NOTE: Complete this form (Adapted from NUREG-0845) before :
: contacting the NRC (If this can be done without :
: exceeding the one (1) hour notification time :
: requirement, obtain the information from the :
: Shift Supervisor/Emergency Director. :
: -----

Request to speak to the Duty Officer

Duty Officer's Name

Time of Contact

This is

Name

Title

at Three Mile

Island Nuclear Station, Unit 1. We have declared a(n)
(select as appropriate)

50.72 (NON EMERGENCY)

GENERAL EMERGENCY (1004.4)

X

UNUSUAL EVENT (1004.1)

TRANSPORTATION

ALERT (1004.2)

PHYSICAL SECURITY, SAFEGUARDS

SITE AREA EMERGENCY (1004.3)

OTHER CATEGORY

at

Time

Hours on

Date

Provide the statement selected by the Shift

Supervisor/Emergency Director to the NRC Duty Officer.

- _____

1. We have not had a radioactive release, OR
2. We have had a radioactive release, but do not expect
this situation to result in detectable changes in
offsite radiation levels, OR

ATTACHMENT I SECTION I

INITIAL CONTACT

3. We have had a radioactive release, but do not know if there will be detectable changes in offsite radiation levels. We will be keeping the Bureau of Radiation Protection informed of the results of our investigation, OR
4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels but they will be less than the levels calling for an Alert. We expect these levels to be less than 10 mRem/hr (gamma) and less than 50 mREM/hour child thyroid dose commitment. We will be keeping the Bureau of Radiation Protection informed.
- c. Give a short non-technical description of emergency and potentially affected populations and areas, if appropriate.

EVENT TIME:

CAUSE:

ATTACHMENT I SECTION I

INITIAL CONTACT

POWER PRIOR TO EVENT: _____

POWER NOW: _____

ANY SAFETY INJECTION OR ECCS? _____

COOLING MODE: _____

ANY CONTAMINATION? (QUANTIFY): _____

ANY RELEASES: (QUANTIFY): _____

CONTAINMENT STATUS (IF APPLICABLE): _____

ANY OTHER PROBLEMS: _____

PLANS: _____

DATE _____ TIME OF COMPLETION _____ COMPLETED BY _____

: NOTE: If the NRC Duty Officer directs you to suspend :
: continuous communications inform The Officer a :
: call back will be initiated if any significant :
: changes occur. Document with Duty Officer Name, :
: Time and Date in the Emergency Director's Log. :
: -----

ATTACHMENT I

SECTION II

NOTIFICATION CHECKLIST

AGENCY	TIME OF INITIAL NOTIFICATION OR ESCALATION				TIME OF DE-ESCALATION OR CLOSE OUT			
	UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY	UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
Dauphin County								
PEMA								
Unit 2 Control Room								
INPO								
NRC								
Hershey Medical Center	*	*	*	*				
State Police	*	*	*	*				
RMC	*	*	*	*				
ANI	*	*						
B and W	N/A	N/A						
5 Affected Counties	N/A	N/A	N/A					

* Optional

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIAL

The Communicator shall notify the following agencies and personnel and update the Attachment I, Section II checklist:

1. Announce or have announced the following message over the plant page after turning on when sirens "ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. The Unusual Event has been terminated. (Give a brief description of the work restrictions, if any)". Repeat message and turn off when sirens.
2. Bureau of Radiation Protection

 - a. Telephone: Radiological Line or 9-787-3720
 - b. MESSAGE:

This is _____ at the Three Mile Island Nuclear
(name/title)
Station Unit 1. We have closed-out the Unusual Event
at _____ hours.
(time)
Please notify PEMA, Dauphin, Lancaster, York, Lebanon and Cumberland counties.
3. Unaffected Control Room

 - a. Telephone: 8066, 8067, 8068
 - b. MESSAGE:

Notify Shift Supervisor/Foreman of close-out of the Unusual Event.

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIAL

4. Nuclear Regulatory Commission Office - Bethesda, Md.
- a. Telephone: Emergency Notification System (ENS)
(RED PHONE)
- b. MESSAGE:
- This is _____ at the Three Mile Island
(name/title)
Nuclear Station Unit I. We have closed-out the Unusual
Event at _____ hours.
(time)
5. If applicable, notify the following persons and/or agencies of
close-out of the Unusual Event:
- a. Hershey Medical Center: 9-534-8333 (ask for Duty Nurse)
- b. Pennsylvania State Police: 9-234-4051
- c. Radiation Management Corporation (RMC):
Emergencies (0800-1700) 73-1-215-243-2990
(1700-0800) 73-1-215-841-5141
Office (0800-1700) 73-1-215-243-2950
- d. American Nuclear Insurers: 74-1-203-677-7305
- e. Others: As directed by the Emergency Director.

DATE _____ TIME _____ COMPLETED BY _____

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION I

1. Description of Emergency: _____

2. Has the Reactor tripped Yes / No
3. Did the Emergency Safeguards Systems actuate Yes / No
If so, which ones
- a. High Pressure Injection Yes / No
- b. Low Pressure Injection Yes / No
- c. Core Flood Yes / No
- d. 4 psig Reactor Building Isolation Yes / No
- e. Reactor Building Spray Actuated Yes / No
4. What is the status of the plant
- a. At power
- b. Hot standby
- c. Hot Shutdown
- d. Cooling down
- e. Reactor Pressure _____ psig
- f. Reactor Temperature _____ °F

ATTACHMENT II

SECTION I

5. Is offsite power available Yes / No
6. Are both diesel generators operable Yes / No
7. Have any personnel injuries occurred Yes / No

What are the approximate radiation and/or contamination levels

If so, is the injured person(s) contaminated Yes ~~No~~

mR/hr

DPM/100 cm

8. Are there excessive radiation levels and/or contamination levels?
- Yes / No

If so, list below:

- a. Radiation Levels: _____
- b. Contamination Levels _____ DPM/100 cm²
at location: _____

Date _____ Time 11:30 Completed By [Signature]

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION II

Fill out if a release has occurred or is occurring. Provide BRP all available information for verification call.

1. What is the approximate radioactive source term discharge rate from the plant (As determined by the Projected Dose Calculation procedure [1004.7]).
 - a. Noble gases _____ Ci/sec
 - b. Iodine _____ Ci/sec
2. What is the approximate meteorology:
 - a. Wind speed _____ mph
 - b. Wind direction _____
 - c. Stability Class Stable / Neutral / Unstable
3. What is the projected whole body dose rate and iodine concentration at the nearest offsite downwind point
 - a. _____ mR/hr
 - b. _____ uCi/cc Iodine
 - c. _____ (Location)
4. Estimated duration of the release
 - a. If the release is terminated:
Start time _____ Stop Time _____ Duration _____

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION II

b. If the release is still in progress:

Start time _____

Estimated duration _____ (hrs / min / sec)

Date

Time Completed

Completed By

FOR
INFORMATION
ONLY

1004.2
Revision 11
09/26/83

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.2
ALERT

Table of Effective Pages

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5.0	9						
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30.0	11						

X Signature 9/26/83
Date

- N/A -

Signature Date

Document ID: 0024W

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.2
ALERT

1.0 PURPOSE -

The purpose of this procedure is to define the conditions that shall be regarded as an Alert for Three Mile Island Nuclear Station (Unit 1) and to:

- a. Ensure necessary actions are taken to protect the health and safety of the public.
- b. Ensure necessary actions are taken to notify GPU-Nuclear management and offsite emergency response organizations.
- c. Mobilize the appropriate portions of the emergency response organization to initiate appropriate emergency actions.

The Emergency Director is responsible for implementing this procedure.

:	<u>NOTE:</u>	The Emergency Director is vested with certain authority and responsibility that may not be delegated to a subordinate. Included are:	:
		A. Classification of an emergency event.	:
		B. Approving and directing official notifications to offsite agencies.	:
		C. Approving and directing information releases to the media.	:
		D. Approving and, if possible, personally conveying appropriate Protective Action Recommendations to the Bureau of Radiation Protection.	:
		E. Directing onsite evacuation at the Alert or lower level emergency classification based on potential hazard to non-essential personnel.	:
		F. Authorizing emergency workers to exceed 10 CFR 20 Radiation Exposure Limits.	:
		G. Approving and directing deviation from established operating procedures, emergency operating procedures, normal equipment operating limits or technical specifications during attempts to control the emergency. (Note: It is imperative that the Emergency Director consult to the fullest extent practicable with the Parsippany Technical Functions Center in arriving at a decision to deviate from prescribed procedures).	:
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			:

When the designated Emergency Support Director (ESD) arrives at the site and declares himself to be ready to assume that role, he will assume overall responsibility for management of the response to the accident and recovery operations. With activation of the ESD function, the ESD specifically will assume decision authority for Items C and D. However, decision authority for Items, A, B, E, F and G will be retained by the Emergency Director (ED). Decisions on all of the listed actions normally will result from close and continuous consultation between the ESD and the ED and it is the responsibility of the ED to ensure the ESD is provided with the necessary information to arrive at timely and appropriate decisions. In the special case of event classification, the ESD shall retain the prerogative to overrule the ED if, in the judgment of the ESD, uncertainty or other considerations exist to the extent warranting classification of a higher level of emergency than that classified by the ED.

2.0 ATTACHMENTS

- 2.1 Attachment I, Alert Notifications
 - 2.2 Attachment II, Emergency Status Report
 - 2.3 Attachment III, Checklist for Notification of Significant Events
- Made In Accordance with 10 CFR 50.72.

3.0 EMERGENCY ACTION LEVELS

3.1 Radiological Controls and Containment Integrity

<u>Initiating Condition</u>	<u>Indication</u>
3.1.1 Radiological effluent activity exceed the Environmental technical specification instantaneous limits.	<p>As indicated by any of the following validated by sample and analysis:</p> <ul style="list-style-type: none"> a. RM-A8 (gas) $> 2.0 \times 10^4$ cpm (High alarm) but $< 1.0 \times 10^5$ cpm. b. RM-A9 (gas) $> 4.5 \times 10^4$ cpm (high alarm) but $< 3.0 \times 10^5$ cpm. c. RM-A5 $> 1.0 \times 10^6$ cpm.* d. RM-A8 (iodine) increase $\geq 8.5 \times 10^2$ cpm/min but $< 4.5 \times 10^3$ cpm/min.* e. RM-A9 (iodine) increase $\geq 2.5 \times 10^3$ cpm/min but $< 1 \times 10^4$ cpm/min.* f. Offsite Radiological Monitoring Team reports > 10 mR/hr (gamma) but < 50 mR/hr at any offsite location. g. Offsite Radiological Monitoring Team reports Dose Equivalent I-131 readings at any offsite location of > 50 mR/hr ($> 3.2 \times 10^{-8}$ μCi/cc) to < 250 mR/hr ($< 1.6 \times 10^{-7}$ μCi/cc). h. RM-L7 $> 1.0 \times 10^3$ cpm (high alarm). i. RM-G8 $\geq 6.0 \times 10^3$ mR/hr.
3.1.2 Radiation levels or radioactive contamination which indicate a severe degradation in the control of radioactive materials.	<p>As indicated by either:</p> <ul style="list-style-type: none"> a. Valid, unanticipated high alarms on any two area and/or process radiation monitors (RMA, RML or RMG monitors) at the same time.

* These indications may be determined via instrumentation that will be installed or expanded as required by NUREG 0578 prior to restart.

Initiating Condition

Indication

3.1.3 Fuel damage accident with release of radioactivity to the containment or fuel building.

- b. Receipt of a validated report of airborne or waterborne contaminants as determined by sample and analysis or general radiation readings as determined by periodic survey to have increased by a factor of 1000 above normal.

An accident occurs while handling spent fuel during refueling or while moving objects over the spent fuel pool which causes any one of the following:

- a. A valid High alarm on RM-A2.
- b. A valid High alarm on RM-A4.
- c. A valid High alarm on RM-A8.
- d. A valid High alarm on RM-A13.
- e. A valid High alarm on RM-G7.
- f. A valid High alarm on RM-G9.
- g. A valid increase by a factor of 100 of atmospheric activity as determined by sample and analysis.

3.1.4 Reactor Coolant pump failure at power leading to fuel damage.

As indicated by both of the following:

- a. Receipt of a valid RCP Motor Overload alarm and decreasing flow in the affected loop, and
- b. Reactor Coolant specific activity as determined by sample and analysis is $>50 \mu\text{Ci/ml}$ but $<3850 \mu\text{Ci/ml}$.

(RML1 Low $>6 \times 10^4$ CPM but $<1 \times 10^6$ CPM and/or RML1 High $>1 \times 10^3$ CPM but $>2 \times 10^5$ CPM).

<u>Initiating Condition</u>	<u>Indication</u>
3.1.5 Reactor Building pressure ≥ 4.0 psig, but < 30 psig.	Reactor trip and ECCS initiated due to high Reactor Building pressure.
3.1.6 Reactor coolant total activity > 3850 $\mu\text{Ci/ml}$ but $< 18,300$ $\mu\text{Ci/ml}$ and/or Dose Equivalent Iodine-131 > 300 $\mu\text{Ci/ml}$ but < 1430 $\mu\text{Ci/ml}$ Indicating fuel cladding failure.	As indicated by either: a. Reactor coolant activity as determined by sample and analysis. b. RM-L1 Low (off Scale High) c. RM-L1 High $> 2 \times 10^5$ cpm but $< 1 \times 10^6$ cpm.
3.1.7 Secondary system activity ≥ 1.0 $\mu\text{Ci/ml}$ (I-131 equivalent).	As indicated by sample and analysis.
3.2 Security	
3.2.1 Security of the Facility (Protected Area) is threatened by unauthorized entry of the site (Owner Controlled Area).	Shift Supervisor's judgement based on information from the Duty Security Sergeant.
3.3 General Plant Status	
3.3.1 Other plant conditions are in progress or have occurred which may involve an actual or potential substantial degradation of the level of safety of the plant.	Whenever plant conditions warrant it, as judged by the Shift Supervisor/Emergency Director. NOTE: In exercising the judgement as to the need for declaring an Alert, uncertainty concerning safety status of the plant, the length of time the uncertainty exists, the prospects for early resolution of ambiguities, and the potential for substan- tial degradation of the level of safety of the plant should be considered; i.e., uncertainty as to the existence of substan- tial degradation of the level of safety of the plant extending beyond a reasonable time period is a sufficient basis for declaring an Alert.

Initiating Condition	Indication
3.4 Pressure, Temperature and Inventory Control	
3.4.1 Primary coolant leak rate of greater than 50 gpm.	As indicated by increased makeup flow in excess of letdown flow by 50 gpm or makeup tank level decreasing at approximately 2 inches per minute or greater.
3.4.2 Primary to Secondary leakage: a. Total primary to secondary leak rate <u>>50 gpm.</u>	As indicated by: a. Valid alert alarm on RM-A5 High Range in conjunction with makeup tank level decrease of approximately 2 inches/minute or greater.
b. Total primary to secondary leak rate <u>>1 gpm and <50 gpm AND loss of offsite power.</u>	b. Leak rate determined by daily leak rate test or makeup tank level decrease up to 2 inches/minutes with previous indication of tube leakage (RM-A5 Low Range in High Alarm) in conjunction with an indicated failure of offsite power.
c. Total primary to secondary leak rate <u>>1 gpm and <50 gpm AND a steam line break.</u>	c. Leak rate determined by daily leak rate test or makeup tank level decrease up to 2 inches/minute with a rapid unanticipated decrease in steam pressure or activation of the Steam Line Rupture Detection System (SLRDS) or visual indication of a steam line break.
d. Total primary to secondary leak rate <u>>1 gpm and <50 gpm AND a loss of condensor.</u>	d. Leak rate determined by daily leak rate test or makeup tank level decrease up to 2 inches/minute with previous indication of tube leakage (RM-A5 Low Range in High Alarm) in conjunction with condensor vacuum <23 inches Hg or less than 2 circulating water pumps operating.
----- : <u>NOTE:</u> 50 GPM = 1.67"/min. : : on the makeup tank : : because this is diff- : : cult to see the 2"/ : : min. value is used. : -----	

<u>Initiating Condition</u>	<u>Indication</u>
3.4.3 Reactor Coolant System hot leg temperature is $\geq 620^{\circ}\text{F}$ in either loop.	As read on Reactor Coolant Outlet Temperature indication.
3.4.4 Non-isolable steam leak that results in a rapid depressurization of the steam system.	As indicated by a Steam Line Rupture System actuation (<600 psig) on the affected OTSG.
3.5 Electrical Power	
3.5.1 Loss of all offsite power coincident with a loss of both Diesel Generators for less than 15 minutes.	As indicated by a reactor trip caused by loss of power and trouble alarms on both Diesel Generators neither of which energizes the ID or IE 4 kV busses.
3.5.2 Loss of all onsite DC power for less than 15 minutes.	All Battery Voltmeters read zero and there is no light or control power available.
3.6 Instrumentation and Actuation Systems	
3.6.1 Most or all annunciators lost which may involve an actual or potential substantial degradation of the level of safety of the plant.	As judged by the Shift Supervisor.
3.6.2 Failure of the reactor protection system to initiate and complete a trip when required.	Any reactor trip setpoint being exceeded with no rod in limit lights.
3.6.3 Complete loss of any function needed for plant cold shutdown.	As indicated by a total loss of any of the following: a. Source and intermediate range nuclear instrumentation. b. A loss of forced reactor coolant system flow (include Decay Heat Removal Pumps, Reactor Coolant Pumps, etc.) coincident with total loss of ability to feed OTSG's.

<u>Initiating Condition</u>	<u>Indication</u>
3.7 Natural or Man-Made Phenomena	
3.7.1 Severe natural phenomenon being experienced.	As indicated by any one of the following: <ul style="list-style-type: none">a. Valid alarm on PRF 1-3, "Operating Basis Earthquake".b. Actual river stage >302 feet but <307 feet at the River Water Intake Structure.c. Projected river stage <271 feet at the River Water Intake Structure.d. Any tornado striking facility.e. Hurricane winds >75 mph as indicated on the Wind Speed Recorder.
3.7.2 Other hazards being experienced	As indicated by any one of the following: <ul style="list-style-type: none">a. Aircraft crash or other missile impact within the protected area or onto any permanent plant structure.b. Known explosion damage to any permanent plant structure.c. Release of toxic or flammable gasses into the plant which, in the judgement of the Shift Supervisor, affects the safe operation of the plant.d. Turbine failure resulting in casing penetration.e. Any fire in a permanent plant structure which requires offsite firefighting capabilities.
3.7.3 Any fire jeopardizing the operability of any safety system.	As judged by the Shift Supervisor.
3.7.4 Evacuation of control room anticipated or required with control of shutdown systems established from local stations within 15 minutes.	Shift Supervisor's judgement.

<u>Initiating Condition</u>	<u>Indication</u>
3.8 Reactivity Control	
3.8.1 More than one control rod Stuck-Out, Stuck-In or Dropped requiring shutdown by Technical Specifications.	As indicated by a loss of the ability to meet any of the conditions of Technical Specification Limiting Condition for Operation 3.5.2.2 for more than one control rod.
3.8.2 Control Rod Ejection.	As indicated by a Reactor Trip due to high neutron flux in coincidence with loss of coolant indications.

4.0 EMERGENCY ACTIONS

Initials

- 4.1 Upon recognition that any of the above action levels have been reached or exceeded, the Shift Supervisor/Duty Section Superintendent assume the duties of the Emergency Director. (The event should be assessed and declared within 10 minutes of its occurrence.)
- 4.2 Announce to Control Room Personnel that _____ has assumed the duties of Emergency Director. _____ (name) The Emergency Director shall periodically (approx. every hour) consult with the lead personnel of each area involved in the emergency, and discuss:
- Status of each area
 - Immediate actions to be taken by each lead person
 - Problem areas
 - Recommendations on course of action.

- 4.3 Announce, or have announced, the following message over the public address system (merged):

: NOTE: Turn on Whelen siren switch. :

"ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: AN ALERT HAS BEEN DECLARED IN UNIT 1. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR STATIONS. ALL OTHER PERSONNEL AWAIT FURTHER INSTRUCTIONS." (If emergency is radiation-oriented add: "There will be No Smoking, Drinking, or Eating until further notice.") (Give a brief description of the event and repeat the announcement).

- 4.4 If emergency is radiation-oriented, direct that the Radiation Emergency Alarm be sounded.

: NOTE: Turn off Whelen siren switch after alarm has been sounded. :

- 4.5 Assign a Communicator to make notifications to persons and/or agencies per Attachment I, Section I.

- 4.6 Assign a Communications Assistant and direct him to perform all applicable steps of 1004.8.

- 4.7 Contact the Duty Section Superintendent and discuss:

- a. Plant status
- b. Which members of the Duty Section are required to augment the Onsite/Offsite Emergency Organization.

- 4.8 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented.

- 4.9 If local services (fire, ambulance, police) are required, direct the Communicator to notify Dauphin County Emergency Operations Center and request the appropriate assistance. Notify Security (N/S Gate) to begin preparations to expedite entry of responding emergency personnel (Police/Fire/ Ambulance). Security should be advised to implement procedure 1004.19 Emergency Security/Dosimetry Badge Issuance.

: NOTE: If the Emergency Response personnel are required to :
: respond outside the protected area affected by a :
: radioactive plume the Emergency Director or his :
: designee will direct the issuance of TLD's from the :
: North or South gate. :

- 4.10 If the emergency involves radiological problems, direct the Radiological Assessment Coordinator to implement Radiological Controls During Emergencies (1004.9).
- 4.11 If changes in onsite or offsite radiation levels are expected, direct the Radiological Assessment Coordinator to:
- a. Dispatch offsite and/or onsite radiation monitoring teams in accordance with EPIP's 1004.10.
 - b. Implement Onsite Offsite Dose Projections procedure (1004.7).
- 4.12 If personnel/vehicles are, or are suspected to be contaminated, have the RAC initiate the Personnel/Vehicle Monitoring and Decontamination procedure (1004.20).
- 4.13 Activate the Technical Support Center, procedure (1004.28), and the Operations Support Center, procedure (1004.29).
- 4.14 If additional resources or notifications are required, refer to Additional Assistance and Notifications procedure (1004.6).

- ____ 4.15 Assign an individual to complete Attachment II, Section I and give it to the Radiological Assessment Coordinator to transmit to the Bureau of Radiation Protection.
- ____ 4.16 Direct the Radiological Assessment Coordinator to complete Attachment II, Section II to transmit to the Bureau of Radiation Protection if a radioactive release has occurred or is occurring.
- ____ 4.17 Stop all liquid and gaseous discharges that are in progress until an assessment of their impact is performed and specific approval is given to continue the release by the Emergency Director.
- ____ 4.18 Verify that communications and documentation are maintained per procedure Communications and Recordkeeping (1004.5).
- ____ 4.19 If applicable, direct the Operations Coordinator to dispatch Emergency Repair/Operations personnel to investigate the identified problem area(s) in accordance with Emergency Repair/Operations procedure 1004.21.
- ____ 4.20 After 30 minutes from initial contact with REMA, confirm that BRP verification has been made. If no verification, instruct the communicator to proceed to Attachment I, Section 1.2 (d).
- ____ 4.21 Instruct the Radiological Assessment Coordinator to provide ongoing dose estimates for actual releases to the Bureau of Radiation Protection.
- ____ 4.22 Evaluate dose projections and estimates and if necessary, recommend protective actions to the BRP consistent with the guidelines in Attachment I, Section IV.

- 4.23 If personnel are injured or ill and are in a radiologically controlled area or are potentially contaminated, or if person(s) have received radiation exposure greater than 25 REM; direct the RAC to implement Emergency Plan Implementing Procedure 1004.16, Contaminated Injuries/Radiation Over-exposure.
- 4.24 If person(s) have been exposed to I^{131} sufficient to cause a thyroid dose of greater than or equal to 25 RAD, direct the RAC to implement the Thyroid Blocking Procedure Emergency Plan Implementing Procedure 1004.35.
- 4.25 Based upon assessment of plant conditions, either close out the Alert, escalate to a higher class of emergency or downgrade to a lower class.
- a. If Recovery Phase criteria have been met (see Recovery Procedure 1004.24), but long term recovery operations are not necessary, close out the Alert by performing the notifications in Attachment I, Section III.
 - b. If Recovery Phase criteria have not been met, but Alert emergency action levels are no longer being exceeded, de-escalate to an Unusual Event by notifying BRP on the Radiological Line and perform the remaining notifications in accordance with the Unusual Event procedure (1004.1).
 - c. If emergency action levels exceed those for an Alert, escalate to a higher class, notify BRP on the Radiological Line and make the remaining notifications in accordance with the appropriate emergency procedure as specified in Step 5.1.

- ____ 4.26 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure (1004.14),
Monitoring/Controlling Liquid Discharges.

5.0 FINAL CONDITIONS

- ____ 5.1 A higher class of emergency has been declared by the Emergency Director after meeting or exceeding an emergency action level of one of the higher classes and one of the following procedures is being implemented.

- a. Site Emergency (1004.3)
- b. General Emergency (1004.4)

- ____ 5.2 A lower class of emergency has been declared by the Emergency Director and Unusual Event procedure (1004.01) is being implemented.

- ____ 5.3 The Alert has been closed out since no recovery operations are required.

- ____ 5.4 The Alert can be shifted to a recovery mode by implementing the procedure Recovery Operations (1004.24)

- ____ 5.5 At the close of the Emergency, ensure that all logs, check-lists, procedures and other documentation generated in the Control Room associated with the event are gathered and sent to the Emergency Preparedness Department for review and filing.

Date

Signature of Person Responsible for
Implementing Procedure

ATTACHMENT I

Section I

Initial Contact

The Communicator shall notify the following agencies and personnel and update the Attachment I, Section II checklist for each notification.

Initial

1. Dauphin County Emergency Operations Center

(If this is a reclassification notification, first advise BRP via Radiological line or 9-787-3720 then unaffected Control Room) go to Item 3.

a. Telephone 9-911 or 9-236-7976

1. If no contact, activate Dauphin County radio system.

b. MESSAGE:

This is _____ at the Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an Alert
at _____ hours.
(time)

(Based upon Emergency Director judgment, deliver one of the following statements):

1. We have not had a radioactive release

OR

2. We have had a radioactive release, but do not expect this situation to result in detectable changes in offsite radiation levels,

OR

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Initial Contact

Initial

3. We have had a radioactive release, but do not know if there will be a detectable change in offsite radiation levels. We will be keeping the Bureau of Radiation Protection informed of the results of our investigation,
OR

4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels, but they are expected to be less than the levels calling for a Site Emergency. We will be keeping the Bureau of Radiation Protection informed.

c. Give a short non-technical description of the emergency and the extent of the radioactive release and the affected populations and area. _____

2. Pennsylvania Emergency Management Agency (PEMA)

(If this is a reclassification notification, go to Item 3, Un-affected Control Room.)

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Initial Contact

Initial

- a. Telephone: PEMA Dedicated Line (Use only during NORMAL work hours 0800-1600 hrs. Monday-Friday) or 9-783-8150 (Use when the dedicated line is out of service or after normal work hours. A diverter forwards this after normal work hours call to the PEMA Duty Officer).

: NOTE: If unable to contact, proceed to step 2.d. :

- b. MESSAGE:

This is Three Mile Island Nuclear Station Unit 1 calling. We have an emergency. Give me the Operations Duty Officer.
(When Duty Officer answers:)

This is _____ at the Three Mile Island
(name/title)

Nuclear Station Unit 1 calling. We have declared an Alert
at _____ hours.
(time)

We request you contact Bureau of Radiation Protection. Bureau of Radiation Protection callback should be made on the Radiological Line or 948-8069, 948-8071 or 944-0839. (Based upon Emergency Director judgment, deliver one of the following statements):

1. We have not had a radioactive release,

OR

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Initial Contact

2. We have had a radioactive release, but do not expect this situation to result in detectable changes in offsite radiation levels,
- OR
3. We have had a radioactive release, but do not know if there will be detectable changes in offsite radiation levels. We will be keeping the Bureau of Radiation Protection informed of the results of our investigation,
- OR
4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels but they will be less than the levels calling for a Site Emergency. We will be keeping the Bureau of Radiation Protection informed.
- c. Give a short non-technical description of the emergency, and any potentially affected populations and areas:

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Initial Contact

Initial

- d. If PEMA is unable to be contacted, contact Dauphin County; advise them that PEMA cannot be contacted and direct them to notify PEMA, BRP, and Lancaster, York, Lebanon, and Cumberland counties.

e. Message verification:

Expect Bureau of Radiological Protection (BRP) contact after PEMA notification. If no BRP confirmation is received within 30 minutes, notify PEMA of the situation. If unable to contact PEMA (line busy) call Dauphin County and notify them that BRP has not verified initial contact. Request Dauphin County to contact PEMA and/or BRP.

3. Unaffected Control Room

- a. Telephone: 8066, 8067, 8068 or inter Control Room Hot Line.
- b. Message: Emergency Organization Staffing is requested but implementation of the Unit 2 Emergency Plan is not required. (Give a brief description of plant status to the Shift Supervisor/Foreman.)

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Initial Contact

Initial

4. Institute of Nuclear Power Operations

(Do not notify if this is a reclassification notification.)

a. Telephone: 1-404-953-0904 or contact the TMI Site Operator for assistance

b. MESSAGE:

This is _____ at Three Mile Island
(name/title)

Nuclear Station Unit _____ calling. We have declared an

Alert at _____ hours. (Give a brief description of
(time)

the emergency.)

5. Notify the following personnel/agencies if the emergency situation is such that notification is deemed appropriate.

a. Hershey Medical Center 9-534-8333 (ask for Duty Nurse)

Notification to be performed per procedure 1004.15.

ATTACHMENT 1

Section I

Initial Contact

Initial

b. Pennsylvania State Police 9-234-4051

MESSAGE:

This is _____ at the Three Mile
(name/title)

Island Nuclear Station Unit I calling. We have

declared an Alert at _____ hours. We _____
(time) (have/have not)

had a radioactive release. We require assistance as
follows: (State any assistance required.)

Radiation Management Corporation (RMC)

Emergencies (0800-1700) 73-1-215-243-2990

(1700-0800) 73-1-215-841-5141

Office (0800-1700) 73-1-215-243-2950

MESSAGE:

This is _____ at the Three Mile
(name/title)

Island Nuclear Station Unit I calling. We have

declared an Alert at _____ hours. (Give a brief
(time)

description of the emergency). We _____
(have/have not)

had a radioactive release.

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Initial

- d. American Nuclear Insurers 74-1-203-677-7305 or
9-1-800-243-3172/3173
(after normal working hours)

Message:

This is _____ at the Three Mile
(name/title)

Island Nuclear Station Unit I calling. We have
declared an Alert at _____ hours (Give a brief
(time)
description of the emergency).

We _____ had a radioactive release.
(have/have not)

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4. Nuclear Regulatory Commission (NRC) - Bethesda, MD.

(Continuous communications with the NRC will be maintained following contact.)

a. Telephone: NRC Emergency Notification System (ENS) (RED PHONE)

(If ENS Phone is inoperative, refer to Emergency Plan Implementing Procedure 1004.6, "Additional Assistance Notification", for alternate methods).

b. MESSAGE:

NOTE: Complete this form (adapted from NUREG-0845) before contacting the NRC (if this can be done without exceeding the one (1) hour notification time requirement) obtain the information from the Shift Supervisor/Emergency Director.

Request to speak to the Duty Officer

Duty Officer's Name Time of Contact

This is _____ / _____ at Three Mile Island
Name Title

Nuclear Station, Unit 1. We have declared a(n) (select as appropriate):

_____ 50.72 (Non Emergency)

_____ General Emergency
(1004.4)

_____ Unusual Event (1004.1)

_____ Transportation

☒ Alert (1004.2)

_____ Physical Security;
Safeguards

_____ Site Area Emergency (1004.3)

_____ Other Category

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Initial Contact

Initial

at _____ hours on _____. Provide the statement selected
Time Date

by the Shift Supervisor/Emergency Director to the NRC Duty
Officer.

1. We have not had a radioactive release
OR
2. We have had a radioactive release but do not expect this
situation to result in detectable changes in offsite
radiation levels.
OR
3. We have had a radioactive release but do not know if
there will be a detectable change in offsite radiation
levels. We will be keeping the Bureau of Radiation
Protection informed of the results of our investigation.
4. We have had a radioactive release and expect to be able
to detect changes in offsite radiation levels but they
will be less than the levels calling for a Site Emer-
gency. We expect the levels to be <50mRem/hr (gamma) and
child thyroid dose commitment to be <250 mREM/hr.
We will be keeping the Bureau of Radiation Protection
informed.

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- c. Give a short non-technical description of the emergency, the extent of the radioactive release, if any, and the potentially affected populations and areas, if appropriate.

EVENT TIME: _____

CAUSE: _____

POWER PRIOR TO EVENT: _____

POWER NOW: _____

ANY SAFETY INJECTION OR ECCS? _____

COOLING MODE: _____

ANY CONTAMINATION? (QUANTIFY). _____

ANY RELEASES: (QUANTIFY): _____

ATTACHMENT I

Section I

Initial Contact

CONTAINMENT STATUS (IF APPLICABLE): _____

ANY OTHER PROBLEMS: _____

PLANS: _____

DATE _____ TIME OF COMPLETION _____ COMPLETED BY _____

: NOTE: If the NRC Duty Officer directs you to suspend con- :
: tinuous communications inform the officer a call back :
: will be initiated if any significant changes occur. :
: Document with Duty Officer name, time, and date in :
: the Emergency Directors Log. :

ATTACHMENT I

SECTION 11

NOTIFICATION CHECKLIST

AGENCY	TIME OF INITIAL NOTIFICATION OR ESCALATION				TIME OF DE-ESCALATION OR CLOSE OUT			
	UNUSUAL: EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY	UNUSUAL: EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
Dauphin County								
PEMA								
Unit 2 Control Room								
INPO								
NRC								
Hershey Medical Center	*	*	*	*				
State Police	*	*	*	*				
RMC	*	*	*	*				
ANI	*	*						
B and W	N/A	N/A						
5 Affected Counties	N/A	N/A	N/A					

* Optional

ATTACHMENT I

Section III

Secondary Contact

Initial

The Communicator shall notify the following agencies and personnel and update the Attachment 1, Section II checklist for each notification.

1. Announce or have announced the following message over the plant page after turning on when sirens "ATTENTION ALL PERSONNEL ATTENTION ALL PERSONNEL. The Alert has been terminated. (Give a brief description of the work restrictions, if any)". Repeat message and turn off when sirens.
2. Bureau of Radiological Protection
 - a. Telephone: Radiological Line or 767-3720
 - b. MESSAGE:
This is _____ at the Three Mile Island Nuclear Station
(name/title)
Unit 1. We have closed out the Alert at _____ hours and
(time)
initiated recovery operations. Please notify PEMA, Dauphin, Lancaster, York, Lebanon and Cumberland counties.
3. Unaffected Control Room
 - a. Telephone: 8066, 8067, 8068
 - b. Message: Notify Shift Supervisor/Foreman of Close out of the Alert.
4. Nuclear Regulatory Commission Office - Bethesda, Md.
 - a. Telephone: Emergency Notification System (ENS)

(RED PHONE)

ATTACHMENT I

Section III

Secondary Contact

Initial

b. MESSAGE:

This is _____ at the Three Mile Island Nuclear
(name/title)

Station Unit 1. We have closed out the Alert at _____ hours
(time)

and initiated recovery operations.

5. If applicable, notify the following persons and/or agencies of
close out of the Alert:

a. Hershey Medical Center: 9-534-8333 (ask for Duty Nurse)

b. Pennsylvania State Police: 9-234-4051

c. Radiation Management Corporation (RMC):

Emergencies (0800-1700) 73-1-215-243-2990

(1700-0800) 73-1-215-841-5141

Office (0800-1700) 73-1-215-243-2950

d. American Nuclear Insurers: 74-1-203-677-7305

e. Others - as directed by the Emergency Director.

DATE

TIME OF COMPLETION

COMPLETED BY

ALERT

ATTACHMENT 1 SECTION IV

PROTECTIVE ACTION RECOMMENDATION GUIDELINES

THESE RECOMMENDATIONS MAY BE DELIVERED ONLY BY THE EMERGENCY DIRECTOR

1. Consideration shall be given to sheltering if:
 - a. Release time is expected to be short (Puff release, <2 hours)
and
 - b. Evacuation could not be well underway prior to expected plume arrival due to short warning time, high wind speeds, and/or foul weather.
2. Consideration shall be given to evacuation if:
 - a. A release is expected to occur with projected doses approaching or exceeding:
1 Rem Whole Body and/or
5 Rem Child Thyroid
and
 - b. Release time is expected to be long (>2 hours)
and
 - c. Evacuation can be well underway prior to plume arrival for above release, based upon wind speed and travel conditions.

ATTACHMENT II
EMERGENCY STATUS REPORT

Section I

1. Description of emergency: _____

2. Has the Reactor tripped Yes/No

3. Did the Emergency Safeguards Systems actuate Yes/No

If so, which ones

a. High Pressure Injection Yes/No

b. Low Pressure Injection Yes/No

c. Core Flood Yes/No

d. 4 PSIG Reactor Building Isolation Yes/No

e. Reactor Building Spray Actuated Yes/No

4. What is the status of the plant

a. At power

b. Hot Standby

c. Hot Shutdown

d. Cooling Down

e. Reactor Pressure _____ psig

f. Reactor temperature _____ °F

ATTACHMENT II
EMERGENCY STATUS REPORT

Section I

5. Is offsite power available Yes/No
6. Are both diesel generators operable Yes/No
7. Have any personnel injuries occurred Yes/No
- a. If so, is the injured person(s) contaminated Yes/No
1. What are the approximate radiation and/or Contamination levels
- mR/hr
- DPM/100 cm²
8. Are these excessive radiation levels and/or Contamination Levels Yes/No
- a. If so, List below:
1. Radiation Levels (Whole Body)
2. Contamination Levels DPM/100 cm²
- at location:

DATE

TIME

COMPLETED BY

ATTACHMENT II
EMERGENCY STATUS REPORT

Section II

Fill out if a release has (is) occurring. Provide BRP all available information for verification call.

1. What is the approximate radioactive source term discharge rate from the plant (As determined by the Projected Dose Calculation procedure (1004.7).)
 - a. Noble gases _____ Ci/sec
 - b. Iodine _____ Ci/sec
2. What is the approximate meteorology
 - a. Wind speed _____ mph
 - b. Wind direction _____
 - c. Stability Class-Stable/Neutral/Unstable
3. What is the projected whole body dose rate and iodine concentration at the nearest offsite downwind point
 - a. _____ mR/hr
 - b. _____ μ Ci/cc Iodine
 - c. _____ (Location)
4. Estimated duration of the release
 - a. If the release is terminated:
Start time _____ Stop time _____
Duration _____
 - b. If the release is still in progress:
Start Time _____ Estimated duration _____ (hrs/min/sec)

ATTACHMENT II
EMERGENCY STATUS REPORT

Section II

5. a. Based on projected dose rates, iodine concentration and duration or estimated duration (if still in progress) of the release, will the lower limits of the EPA Protective Action Guides be exceeded (i.e., 1 Rem Whole Body, 5 Rem Child Thyroid).

Yes/No

- b. If yes, estimate time to exceeding PAG: _____ hours

Date Time Completed Completed By

FOR INFORMATION ONLY

1004.3
Revision 11
09/26/83

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATEL

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.3
SITE EMERGENCY

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X Signature

9/26/83
Date

- NA -
Signature

Date

Document ID: 0025W

ATTACHMENT I SECTION I
INITIAL CONTACT

INITIAL

3. Unaffected Control Room

- a. Telephone: 8066, 8067, 8068 or inter Control Room hotline.
- b. MESSAGE: Emergency organization staffing is requested but implementation of the Unit 2 Emergency Plan is not required.
(Give a brief description of plant status to the Shift Supervisor/Foreman.)

4. Institute of Nuclear Power Operations

(Do not notify if this is a reclassification notification).

- a. Telephone: 1-404-953-0904 or contact the TMI Site operator for assistance by dialing "10"

b. MESSAGE:

This is _____ at Three Mile Island Nuclear
(name/title)

Station Unit 1 calling. We have declared a Site Emergency

at _____ hours. (Give a brief description of
(time)

the emergency). _____

