

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

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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 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: Emergency Director responsibilities that may NOT be delegated include:

- a. Decision to notify offsite emergency management agencies.
- b. Making protective action recommendations as necessary to offsite emergency management agencies.
- c. Classification of Emergency Event.
- d. Determining the necessity for onsite evacuation based upon potential exposure to non-essential personnel.
- e. Authorization for emergency workers to exceed 10 CFR 20 radiation exposure limits.

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

INITIATING CONDITION

INDICATION

- | | |
|---|---|
| 3.1 Reactor trip followed by an unplanned automatic ECCS initiation. | Reactor trip alarm (F-1-1) followed by HP Injection Flow alarm (E-2-6 and/or E-3-6). |
| 3.2 Radiological effluent technical specification limits being approached. | As indicated by a valid Alert alarm on RM-A5, RM-A8, RM-A9, or RM-L7. |
| 3.3 Reactor coolant total activity $\geq 50 \mu\text{Ci/ml}$ but $< 3850 \mu\text{Ci/ml}$ and/or Dose Equivalent Iodine-131 $\geq 4 \mu\text{Ci/ml}$ 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 $> 6.35 \times 10^4$ cpm but $< 1 \times 10^6$ cpm.
c. RM-L1 High $> 1.11 \times 10^3$ cpm but $< 2.1 \times 10^5$ cpm. |
| 3.4 Abnormal coolant temperature and/or pressure or abnormal fuel temperatures outside of technical specification limits. | Any condition whereby the Technical Specification Safety Limits 2.1.1 and 2.1.2 are exceeded without a reactor trip and confirmed by an engineering analysis. |
| 3.5 Exceeding primary system leak rate technical specification. | As indicated by either:
a. Total reactor coolant leakage > 10 gpm as measured by daily leak rate test.
b. Unidentified reactor coolant leakage > 1 gpm as measured by daily leak rate test. |
| 3.6 Failure of a safety or relief valve in a safety related system to close following reduction of applicable pressure. | 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 accoustical valve monitoring or flow measuring equipment.*
b. OTSG Atmospheric Relief Valve(s) or Decay Heat System relief valve. |

- | | |
|--|---|
| 3.7 A loss of On-site AC power resulting in a technical Specification shutdown. | As indicated by a loss of the ability to meet any of the conditions of Technical Specification Limiting Condition for Operation 3.7.2. |
| 3.8 A sustained loss of offsite power resulting in a reactor trip. | As indicated by a reactor trip caused by loss of power. |
| 3.9 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. |
| 3.10 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). | 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. |
| 3.11 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. |
| 3.12 Fire outside plant structures requiring offsite firefighting assistance. | Shift Supervisors judgement, based on request of the fire brigade leader for offsite firefighting assistance. |
| 3.13 Indications or alarms on process or effluent parameters not functional in control room to an extent requiring plant shutdown or other significant loss of assessment or communication capability (e.g., plant computer, Safety Parameter Display System, all meteorological instrumentation). | As indicated by a loss of indications, assessment or communications capability requiring plant shutdown as determined by the Shift Supervisor. |
| 3.14 Security threat or attempted entry or attempted sabotage. | Shift Supervisor's judgment, based on advice of the Security Duty Sergeant. |

- 3.15 Natural phenomenon being experienced or projected beyond usual levels.
- 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. High winds ≥ 75 mph as indicated on Wind Speed Recorder (NDS-301) or National Weather Service projection of tornado or hurricane force winds.
- 3.16 Other hazards being experienced or projected.
- 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.
- 3.17 Transportation of any injured or ill and contaminated or potentially contaminated personnel from the site to an offsite medical facility.
- As judged by the Shift Supervisor.
- 3.18 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.

- 3.19 A reactor trip caused by either:
a. Any reactor coolant pump failure.
b. Total loss of ability to feed OTSG.
- As indicated by reactor trip caused by a validated low-flow trip or by a total loss of feedwater.
- 3.20 Valid Reactor Building Evacuation Alarm.
- Receipt of a valid Reactor Building Evacuation Alarm.
- 3.21 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:
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.
- 3.22 Stuck-Out, Stuck-In or Dropped Control Rod 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.
- 3.23 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.

- * 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.

: 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 TLDs 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 FEMA, 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 I^{131} sufficient to cause a thyroid dose of greater than or equal to 10 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 notifications 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 then go to Item 3, Unaffected Control Room).

a. Telephone: _____

b. Message:

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 (A diverter forwards this call to a PEMA duty officer after working hours.)

: 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

(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: _____ inter Control Room
Hot-Line _____
- b. MESSAGE:
Give a brief description of Plant Status to Shift Supervisor.

4. INSTITUTE OF NUCLEAR POWER OPERATIONS

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

- a. Telephone: _____ 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 _____ (Ask for Duty Nurse)

Notification to be performed per procedure 1004.16.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

b. Pennsylvania State Police

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

Office

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 _____ or

(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, "Addition Assistance and
Notification" for alternate methods).

ATTACHMENT I SECTION I

INITIAL CONTACT

b. MESSAGE:

This is _____ at Three Mile Island Nuclear
(name/title)
Station Unit 1 calling. We declared an Unusual Event
at _____ hours.
(time)

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
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.

ATTACHMENT I SECTION I

INITIAL CONTACT

- c. Give a short non-technical description of emergency and potentially affected populations and areas:

DATE _____ TIME OF COMPLETION _____ COMPLETED BY _____

: NOTE: After initial NRC notification is complete per :
: Attachment I, Section I above, refer to the NRC :
: Notification Checklist, Attachment III. This :
: Check list contains information desired by the NRC :
: and may be helpful in providing follow-up :
: information. :
: _____ :

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 whelen 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 whelen sirens.
2. Bureau of Radiation Protection

 - a. Telephone: Radiological Line or
 - 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:
 - 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: (ask for Duty Nurse)
- ____ b. Pennsylvania State Police:
- ____ c. Radiation Management Corporation (RMC):
Emergencies
Office
- ____ d. American Nuclear Insurers:
- ____ 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 _____ Completed By _____

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

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

A. Identification:

Date _____ Time _____ Name of Person Making Report _____
Licensee _____ Facility Affected _____
Applicable Part of 10 CFR 50.72 _____

B. Description:

Date of Event _____ Time _____
Description of What Happened _____

C. Consequences of Event: (Complete depending on type of event)

Injuries _____ Fatalities _____
Contamination (personnel) _____ (property) _____
Overexposures (known/possible) _____
Safety Hazard (describe - actual/potential) _____

Offsite Radiation Levels _____
Integrated Dose _____ Location _____
Meteorology (wind speed) _____ From (direction) _____
Weather Conditions (rain, clear, overcast, temperature) _____
Equipment/Property Damage _____

D. Cause of Event: _____

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

E. Licensee Actions:

Taken _____
Planned _____
Emergency Plan Activated (Yes/No) _____ Classification of Emergency _____
Resident Inspector Notified (Yes/No) _____ State Notified (Yes/No) _____
Press Release Planned (Yes/No) _____ News Media Interest (Yes/No) _____
Local/National _____

F. Current Status: (Complete depending on type of event)

1. Reactor Systems Status _____
Power Level Before Event _____ After Event _____
Pressure _____ Temp. (t_{hot}) _____ (t_{cold}) _____
RCS Flow (Yes/No) _____ Pumps On (Yes/No) _____
Heat Sink: Condenser _____ Steam Atm. Dump _____
Other _____ Sample Taken (Yes/No) _____ Activity Level _____
ECCS Operating (Yes/No) _____ ECCS Operable (Yes/No) _____
ESF Actuation (Yes/No) _____
PZR or RX Level _____ Possible Fuel Damage (Yes/No) _____
S/G Levels _____ Feedwater Source/Flow _____
Containment Pressure _____ Safety Relief Valve Actuation (Yes/No) _____

I See Emergency Action Levels, Appendix 1, NUREG-0654, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

Containment Water Level Indication _____

Equipment Failures _____

Normal Offsite Power Available (Yes/No) _____

Major Busses/Loads Lost _____

Safeguards Busses Power Source _____

D/G Running (Yes/No) _____ Loaded (Yes/No) _____

2. Radioactivity Release

Liquid/Gas _____ Location/Source _____

Release Rate _____ Duration _____

Stopped (Yes/No) _____ Release Monitored (Yes/No) _____

Amount of Release _____ Tech Spec. Limits _____

Radiation Levels in Plant _____ Areas Evacuated _____

3. Security/Safeguards

Bomb Threat: Search Conducted (Yes/No) _____ Search Results _____

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extend of Intrusion _____

Apparent Purpose _____

Strike/Demonstrations: Size of Group _____

Purpose _____

² See 10 CFR 73.71(c), effective April 6, 1981.

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

Sabotage: Radiological (Yes/No) _____ Arson (Yes/No) _____
Equipment/Property _____
Extortion: Source (phone, letter, etc.) _____
Location of Letter _____
Demands _____
General: Firearms involved (Yes/No) _____ Violence (Yes/No) _____
Control of Facility Compromised or Threatened (Yes/No) _____
Stolen/Missing Material _____
Agencies Notified (FBI, State Police, Local Police, etc.) _____
Media Interest (present, anticipated) _____

1004.3
Revision 8
02/25/83

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

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

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Date

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Date

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

1.0 PURPOSE

The purpose of this procedure is to define the conditions that shall be regarded as a Site Emergency 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 emergency response organizations to initiate appropriate emergency actions.

The Emergency Director is responsible for implementing this procedure.

NOTE:

Emergency Director responsibilities that may NOT be delegated include:

- a. Decision to notify offsite emergency management agencies.
- b. Making protective action recommendations as necessary to offsite emergency management agencies.
- c. Classification of Emergency Event.
- d. Determining the necessity for onsite evacuation.
- e. Authorization for emergency workers to exceed 10CFR20 radiation exposure limits.

2.0 ATTACHMENTS

- 2.1 Attachment I, Site Emergency 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

<u>INITIATING CONDITION</u>	<u>INDICATION</u>
3.1 Known loss of coolant accident greater than makeup capacity leading to RCS saturation.	As indicated by automatic ECCS initiation due to both high containment pressure (4.0 psig) and low reactor coolant pressure (1600 psig) or reactor coolant system pressure/temperature curves or subcooling monitor* indicate saturation conditions.
3.2 Primary to Secondary leakage \geq 50 gpm.	As indicated by makeup tank level decreasing at 2 inches/minute or makeup flow exceeding letdown by 50 gpm in conjunction with RM-A5 high alarm (8000 cpm) or steam line monitor high alarm.*
3.3 Loss of all offsite power or incident with a loss of both Diesel Generators for more than 15 minutes.	Continuation of condition in Alert EAL-5 for more than 15 minutes.
3.4 Loss of all vital onsite DC power for more than 15 minutes.	Continuation of condition in Alert EAL-6 for more than 15 minutes.
3.5 Complete loss of any function needed for plant hot shutdown.	As indicated by a complete loss of any of the following a. All means to feed OTSGs. b. All means to control Reactor Coolant Pressure c. Makeup pumps or makeup flow control. d. Control Rods.
3.6 Major damage to spent fuel in containment or fuel handling building.	Caused by either: a. An object, weighing more than the Technical Specification Limiting Condition for Operation 3.11.6 limits, impacting on spent fuel.

- b. The water level in the reactor vessel or spent fuel pool drops below the top of the spent fuel.
- 3.7 Fire compromising the functions of any safety system. As judged by the Shift Supervisor.
- 3.8 Most or all Annunciators lost and plant transient initiated or in progress which may involve actual or likely major failures of plant functions needed for protection of the public. As judged by the Shift Supervisor.
- 3.9 Actual or projected doses at the Exclusion Area boundary greater than 1/20 of the lower limit EPA Protective Action Guidelines but less than the lower limit EPA Protective Action Guidelines. As indicated by:
- a. Valid count rate of $\geq 1.0 \times 10^5$ cpm on the gas channel of RM-A8.*
 - b. Valid count rate of $\geq 3.0 \times 10^5$ cpm on the gas channel of RM-A9.*
 - c. A valid count rate increase of $> 1.0 \times 10^4$ cpm/min on the iodine channel of RM-A8.*
 - d. A valid count rate increase of $> 3.0 \times 10^4$ cpm/min. on the iodine channel of RM-A9.*
 - e. A valid dose rate of $\geq 2.8 \times 10^4$ mR/hr on RM-G8.
 - f. Offsite radiological monitoring reports or dose projections of ≥ 50 mR/hr (gamma) but < 1 REM/hr (gamma) or > 4.2 E-08 μ ci/cc but < 8.5 E-06 μ ci/cc airborne I131 activity.
- 3.10 Imminent loss of control of the physical security of the plant. Shift Supervisor's judgment, based on the advice of the Security Duty Sergeant.

- 3.11 Severe natural phenomena being experienced or projected with plant not in cold shutdown.

Plant is not in cold shutdown and any of the following phenomenon are experienced or projected:

- a. An earthquake of magnitude $> 0.12g$ horizontal and/or $> 0.08g$ vertical acceleration (Safe Shutdown Earthquake).
- b. River Stage > 307 feet at the River Water Intake Structure.
- c. Sustained Hurricane winds or typhoons > 75 mph as indicated on the Wind Speed Recorder (NDS-501).

- 3.12 Other hazards being experienced or projected with the plant not in cold shutdown.

Plant is not in cold shutdown and any of the following phenomenon are experienced or projected:

- a. Aircraft crash which, in the judgment of the Shift Supervisor affects vital structures by impact or fire.
- b. Explosion or missile damage which, in the judgment of the Shift Supervisor, causes severe damage to safe shutdown equipment.
- c. Entry of toxic or flammable gases into vital areas which in the judgment of the Shift Supervisor, affects operation of safe shutdown equipment.

- 3.13 Evacuation of the Control Room where control of the shutdown systems is not established within 15 minutes.

Control Room is evacuated and control of all of the following systems or equipment is not established within 15 minutes:

- a. Emergency Feedwater System
- b. Turbine Bypass Valves or Atmospheric Steam Dump Valves.
- c. Makeup Pumps.
- d. Makeup Flow Control Valve.
- e. Letdown Flow Control.

- | | | |
|------|---|--|
| 3.14 | Reactor Building pressure
<u>></u> 30 psig. | As indicated by Reactor
Building Spray initiation and
on Reactor Building Pressure
Indicator. |
| 3.15 | Reactor coolant activity
> 18,300 μ ci/ml and/or Dose
Equivalent Iodine-131 > 1430
μ ci/ml indicating possible loss
of coolable geometry. | 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 (Off Scale
High) |
| 3.16 | High incore thermocouple readings
following a reactor trip. | Any two incore thermocouple
readings > 700 F following a
reactor trip.* |
| 3.17 | Failure of any actuated Emergency
Core Cooling System (includes HPI,
LPI and Core Flood) to start and
run following automatic system
initiation such that the number
of components available is below
the minimum assumed for accident
analysis. | Shift Supervisor judges that
ECCS setpoint is exceeded but
BSCS has not initiated. |
| 3.18 | Other plant conditions are in
progress or have occurred which
may involve actual or likely major
failures of plant functions needed
for protection of the public. | Whenever plant conditions war-
rant it, as judged by the
Shift Supervisor/Emergency
Director. |

NOTE: In exercising the judgment as to the need for
declaring a Site Emergency, any uncertainty concern-
ing the status of plant functions needed for protec-
tion of the public, the length of time the uncertain-
ty exists, the prospects for early resolution of
ambiguities, and the potential degradation of the
plant functions needed for protection of public
should be considered; i.e., significant uncertainty
as to the reliability of plant functions for protec-
ting the public extending beyond a reasonable time
period is a sufficient basis for declaring a Site
Emergency.

* 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

- 4.1 Upon recognition that any of the above action levels have been reached or exceeded, the Shift Supervisor/Duty Section Superintendent shall assume the duties of the Emergency Director. (The event should be assessed and declared within 10 minutes of the occurrence).
- 4.2 Announce to Control Room personnel that _____ has assumed the duties of Emergency Director. The Emergency Director shall periodically (approximately 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: A SITE EMERGENCY HAS BEEN DECLARED IN UNIT I. ALL NON-ESSENTIAL PERSONNEL IN UNIT I REPORT TO UNIT I WAREHOUSE. ALL NON-ESSENTIAL PERSONNEL IN THE UNIT II AREA REPORT TO THE UNIT II WAREHOUSE. ALL PERSONNEL IN H.P. CONTROLLED AREAS PROCEED TO THE H.P. ACCESS CONTROL POINTS. ALL MEMBERS OF THE EMERGENCY-ORGANIZATION REPORT TO YOUR STATIONS. THERE WILL BE NO SMOKING, DRINKING OR EATING UNTIL FURTHER NOTICE. (Repeat message slowly).

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

: NOTE: Turn off Whelen siren 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 Direct the Emergency Assembly Area Coordinator to implement the Warehouse Muster Procedure EPIP 1004.36.
- ____ 4.8 Contact the Duty Section Superintendent and discuss Plant Status and inform him that the onsite and offsite Duty Section personnel are being called.
- ____ 4.9 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented.
- ____ 4.10 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 EPIP 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. :

- ____ 4.11 If the emergency involves radiological problems, direct the Radiological Assessment Coordinator to implement Radiological Controls During Emergencies procedure (1004.9).
- ____ 4.12 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 1004.10 and send a monitor to the Emergency Assembly Areas.
 - b. Implement Onsite/Offsite Dose Projection procedure (1004.7).
- ____ 4.13 If personnel/vehicles are, or are suspected to be contaminated, have the RAC initiate the Personnel/Vehicle Monitoring and Decontamination procedure (1004.20).
- ____ 4.14 Activate the Technical Support Center (1004.28) and the Operations Support Center (1004.29).
- ____ 4.15 If additional resources or notifications are required, refer to Additional Assistance and Notifications procedure (1004.6).
- ____ 4.16 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.
- ____ 4.17 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.

- 4.18 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.
- 4.19 Verify that communications and documentation are maintained per procedure Communications and Recordkeeping (1004.5).
- 4.20 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.
- 4.21 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.e.
- 4.22 Instruct the Radiological Assessment Coordinator to provide ongoing dose estimates for actual releases to the Bureau of Radiation Protection.
- 4.23 If a report of the accountability has not been received within 1 hour from the time it was ordered, contact the Security Coordinator at _____ for a status report.
- 4.24 If personnel are unaccounted for, direct the Operations Support Center Coordinator to initiate the Search and Rescue Procedure (1004.18).
- 4.25 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 protection exposure greater than 25 rem; direct the RAC to implement EPIP 1004.16, Contaminated Injuries/Radiation Overexposure.

4.26 If personnel have been exposed to I^{131} sufficient to cause a thyroid dose of greater than or equal to 10 RAD direct the RAC to implement the Thyroid Blocking procedure EPIP 1004.35.

4.27 Upon completion of a muster at the warehouse, an orderly evacuation by private vehicle shall be ordered by the following message over the public address system (merged):

: NOTE: Turn on Whelen siren switch. :

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: ALL NON-ESSENTIAL PERSONNEL IN UNITS I AND II PROCEED TO THE (MIDDLETOWN SUBSTATION/500 KV SUBSTATION) USING THE NORTH/SOUTH GATE. (DEPENDING ON ROUTE PATHWAY). UPON ARRIVAL, ALL SUPERVISORS WILL ASSEMBLE AND LOG IN THEIR PERSONNEL AND PROVIDE FURTHER INSTRUCTIONS. (Repeat message slowly).

: NOTE: Turn off Whelen siren switch. :

4.28 Evaluate dose projections and estimates and, if necessary, recommend protective actions to the BAP consistent with the guidelines in Attachment I, Section IV.

4.29 Based upon assessment of plant conditions, the Emergency Director shall either close out the Site Emergency, escalate to a General Emergency or downgrade to a lower class as follows:

- a. If Recovery Phase criteria have been met (see Recovery Procedure 1004.24), but long term recovery operations are not necessary, close out the Site Emergency by performing the notifications in Attachment I, Section III.

____ b. If Recovery Phase criteria have not been met, but Site Emergency action levels are no longer exceeded, de-escalate to a lower emergency class by notifying BRP on the Radiological Line and performing the remaining notifications in accordance with the applicable emergency procedure as specified in Step 5.2.

____ c. If emergency action levels exceed those for a Site Emergency, escalate to a General Emergency, notify BRP on the Radiological Line and make the remaining notifications in accordance with the General Emergency procedure (1004.4).

____ 4.30 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 and the General Emergency procedure (1004.4) is being implemented, or

____ 5.2 A lower class of emergency has been declared by the Emergency Director and one of the following procedures is being implemented:

- a. Unusual Event (1004.1)
- b. Alert (1004.2)

- 5.3 The Site Emergency has been closed out with the concurrence of the Emergency Support Director, since no recovery operations are required, or
- 5.4 The Site Emergency can be shifted to a recovery mode by implementing procedure 1004.24.
- 5.5 At the close out 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

INITIALS

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

1. Dauphin County Emergency Operation Center

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

a. Telephone: 9-911 or

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

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

Island Nuclear Station Unit I calling. We have declared a Site
Emergency at _____ hours. (Based upon Emergency
(time)

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 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, 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 will be less than the levels calling for a General Emergency.

We will be keeping the Bureau of Radiation Protection informed.

(Give a short non-technical description of the emergency and the extent of radioactive release including potentially affected populations and areas).

2. Pennsylvania Emergency Management Agency (PEMA)

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

: NOTE: When protective actions are to be recommended, the :
: Emergency Director should refer to the contents of :
: Attachment I, Section IV. :

- a. Telephone: - -

(A diverter forwards this call to PEMA duty officer after working hours).

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

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

b. MESSAGE:

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

Nuclear Station Unit I 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 I calling. We have declared a Site
Emergency at _____ hours. We request that you contact
(time)

the Bureau of Radiation Protection. Bureau of Radiation
Protection call back should be made on the Radiological Line
or _____ (Based on Emergency
Director's 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

INITIAL

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 General Emergency. We will be keeping the Bureau of Radiation Protection informed.
- c. Give a short, non-technical description of the emergency and, if applicable, after release, state the direction of the projected plume pathway and potentially affected populations.
-
- ___ 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 BRP.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

3. Unaffected Control Room

- a. Telephone: _____ or inter Control Room hotline.
- b. MESSAGE: Give a brief description of plant status to Shift Supervisor.

4. Institute of Nuclear Power Operations

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

- a. Telephone: _____ or contact the TMI Site operator for assistance by dialing _____
- b. MESSAGE:
This is _____ at Three Mile Island Nuclear
(name/title)
Station Unit I calling. We have declared a Site Emergency
at _____ hours. (Give a brief description of
(time)
the emergency).

5. Babcock and Wilcox -

This is _____ at Three Mile Island
(name/title)
Nuclear Station Unit I calling. We have declared a Site Emergency.
at _____ hours. (Have a prepared Attachment II
(name/title)
available for reference while giving a brief description of the
emergency).

ATTACHMENT I SECTION I
INITIAL CONTACT

INITIAL

: NOTE: From 0900 to 1700 Monday thru Friday the B and W :
: trunk of the Operations Line may be used. (See :
: Communications Plan). :
:

6. American Nuclear Insurers -

(under normal working hours)

MESSAGE:

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

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

7. If the Site Emergency involves radiation releases, notify the
following agencies:

a. Radiation Management Corporation

Emergencies

Office

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

MESSAGE:

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

Station Unit I calling. We have declared a Site Emergency

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

emergency).

We have had a radioactive release.

We _____ require assistance at this time.
(do/do not)

(Describe the assistance required, if any).

8. If police or medical assistance is required, notify the following agencies:

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

Notification to be performed per procedure 1004.16

b. Pennsylvania State Police -

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

MESSAGE:

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

Nuclear Station Unit I calling. We have declared a Site

Emergency at _____ hours. We _____
(time) (have/have not)

had a radioactive release. We require assistance as follows:

(State any assistance required).

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

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

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

b. MESSAGE:

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

Nuclear Station Unit I calling. We have declared a Site

Emergency at _____ hours. (Based upon Emergency
(time)

Director's judgment, use one of the following statements):

- (1) We have not had a radioactive release, OR

ATTACHMENT I SECTION I

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 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 General Emergency. We expect the levels to be < 1 Rem per hour (gamma) and < 5 Rem per hour child thyroid dose commitment. 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, including affected populations and areas. _____
- _____
- _____
- _____

Date

Time Completed

Completed By

ATTACHMENT I SECTION I

INITIAL CONTACT

: NOTE: After initial NRC notification is complete per :
: Attachment I, Section I above; Refer to the NRC :
: Notification Checklist, Attachment III. This :
: Checklist contains information desired by the NRC :
: and may be helpful in providing follow-up :
: information. :
:

FOR
INFORMATION
ONLY

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	UNUSUAL: EVENT	ALERT	SITE 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 after 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 Site Emergency 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

b. MESSAGE:

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

Nuclear Station Unit 1 calling. We have closed out the Site
Emergency at _____ hours and initiated recovery operations.
(time)

Please notify PEMA, Dauphin, Lancaster, York, Lebanon and
Cumberland counties.

____ 3. Unaffected Control Room

a. Telephone:

b. MESSAGE:

Notify Shift Supervisor/Foreman of close-out of the Site
Emergency.

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIAL

4. If applicable, notify the following persons and/or agencies of close out of the Site Emergency:

____ a. Hershey Medical Center:

(Ask for Duty Nurse)

____ b. Pennsylvania State Police:

____ c. Radiation Management Corp.:

Emergencies (0800-1700) 7

(1700-0800)

Office (0800-1700)

____ d. American Nuclear Insurers:

____ e. Babcock and Wilcox:

____ f. Others - as directed by the Emergency Director.

____ Date

____ Time Completed

____ Completed By

ATTACHMENT I 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 SECTION I
EMERGENCY STATUS REPORT

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

5. Is offsite power available Yes / No

ATTACHMENT II SECTION I
EMERGENCY STATUS REPORT

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 there 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 SECTION II

EMERGENCY STATUS REPORT

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 SECTION II

EMERGENCY STATUS REPORT

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 and projected whole body dose _____ Rem and

child thyroid dose _____ Rem.

Date

Time Completed

Completed By

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

A. Identification:

Date _____ Time _____ Name of Person Making Report _____
Licensee _____ Facility Affected _____
Applicable Part of 10 CFR 50.72 _____

B. Description:

Date of Event _____ Time _____
Description of What Happened _____

C. Consequences of Event: (Complete depending on type of event)

Injuries _____ Fatalities _____
Contamination (personnel) _____ (property) _____
Overexposures (known/possible) _____
Safety Hazard (describe - actual/potential) _____

Offsite Radiation Levels _____

Integrated Dose _____ Location _____

Meteorology (wind speed) _____ From (direction) _____

Weather Conditions (rain, clear, overcast, temperature) _____

Equipment/Property Damage _____

D. Cause of Event: _____

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

E. Licensee Actions:

Taken _____
Planned _____
Emergency Plan Activated (Yes/No) _____ Classification of Emergency¹ _____
Resident Inspector Notified (Yes/No) _____ State Notified (Yes/No) _____
Press Release Planned (Yes/No) _____ News Media Interest (Yes/No) _____
Local/National _____

F. Current Status: (Complete depending on type of event)

1. Reactor Systems Status _____
Power Level Before Event _____ After Event _____
Pressure _____ Temp. (t_{hot}) _____ (t_{cold}) _____
RCS Flow (Yes/No) _____ Pumps On (Yes/No) _____
Heat Sink: Condenser _____ Steam Atm. Dump _____
Other _____ Sample Taken (Yes/No) _____ Activity Level _____
ECCS Operating (Yes/No) _____ ECCS Operable (Yes/No) _____
ESF Actuation (Yes/No) _____
PZR or RX Level _____ Possible Fuel Damage (Yes/No) _____
S/G Levels _____ Feedwater Source/Flow _____
Containment Pressure _____ Safety Relief Valve Actuation (Yes/No) _____

¹ See Emergency Action Levels, Appendix 1, NUREG-0654, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

Containment Water Level Indication _____

Equipment Failures _____

Normal Offsite Power Available (Yes/No) _____

Major Busses/Loads Lost _____

Safeguards Busses Power Source _____

D/G Running (Yes/No) _____ Loaded (Yes/No) _____

2. Radioactivity Release

Liquid/Gas _____ Location/Source _____

Release Rate _____ Duration _____

Stopped (Yes/No) _____ Release Monitored (Yes/No) _____

Amount of Release _____ Tech Spec. Limits _____

Radiation Levels in Plant _____ Areas Evacuated _____

3. Security/Safeguards

Bomb Threat: Search Conducted (Yes/No) _____ Search Results _____

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extend of Intrusion _____

Apparent Purpose _____

Strike/Demonstrations: Size of Group _____

Purpose _____

2 See 10 CFR 73.71(c), effective April 6, 1981.

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

Sabotage: Radiological (Yes/No) _____ Arson (Yes/No) _____

Equipment/Property _____

Extortion: Source (phone, letter, etc.) _____

Location of Letter _____

Demands _____

General: Firearms involved (Yes/No) _____ Violence (Yes/No) _____

Control of Facility Compromised or Threatened (Yes/No) _____

Stolen/Missing Material _____

Agencies Notified (FBI, State Police, Local Police, etc.) _____

Media Interest (present, anticipated) _____