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THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.1 UNUSUAL EVENT

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Unit 2 Staff Recommends Approval

Approval *J.A. Stange*
Cognizant Dept. Head

Date 5/4/82

Unit 2 PORC Recommends Approval

J.H. Kunder
Chairman of PORC

Date 7/13/82

Unit 2 Superintendent Approval

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Date 7/19/82

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NA Date _____

NRC Approval

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THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.1 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 2) 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: 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

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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

- 3.1 Any event resulting in manual automatic actuation of engineered safety features.
- 3.2 Any accidental, unplanned or uncontrolled radioactive release, or exceeding any radiological effluent technical specification limit.
- 3.3 The loss or inoperability of both mini-decay heat removal pumps coincident with the loss or inoperability of the Standby Reactor Coolant Pressure Control System.
- 3.4 An increasing reactor coolant temperature coincident with either:
 - a. Total loss of forced reactor coolant flow capability
 - b. Total loss of all main and emergency feedwater pumps or the inability to feed the steam generators.
- 3.5 Confirmed unidentified reactor coolant system leakage >1 gpm, or confirmed total reactor coolant system leakage ≥ 10 gpm.

INDICATION

- Any condition whereby the engineered safety feature actuation system is initiated per Technical Specifications Table 3.3-3.
- a. Any valid unanticipated "Alert" condition on any effluent radiation monitor.
 - b. Any discharge or radioactive release by other than planned or controlled means.
- Loss or inoperability is when the system or component is incapable of performing its specified function(s), per Technical Specification definition of Operable/Operability, Section 1.5.
- a. Increasing reactor coolant temperature as indicated by R.C.S. hot leg temperature indicator(s).
 - b. Total loss of forced reactor coolant flow capability is:
 - 1. Reactor coolant pumps
 - 2. Decay Heat Removal System inoperable.
 - 3. Mini Decay Heat Removal system inoperable.
- a. Unidentified reactor coolant leakage >1 gpm as measured by R.C.S. leak rate test.
 - b. Total reactor coolant leakage >10 gpm as measured R.C.S. leak rate test.

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|---|--|
| <p>3.6 A failure of a safety or relief valve in a safety related system to close following reduction of applicable pressure.</p> | <p>Typical indications:
a. Increased R.C.S. makeup
b. Accoustical valve monitoring or flow measuring equipment indication.
c. Continuing drop in system pressure.</p> |
| <p>3.7 Both diesel generators inoperable resulting in a loss of back-up emergency power.</p> | <p>Inoperable as defined per Technical Specification of Operability Section 1.5, or by a loss of the ability to meet any of the conditions of Technical Specifications - Limiting Conditions for Operation, Section 3.8.1.</p> |
| <p>3.8 Sustained loss of offsite power.</p> | <p>Loss of all A.C. power indication from offsite transmission network:</p> |
| <p>3.9 The sustained loss of containment integrity.</p> | <p>a. The loss of the ability to meet the conditions of containment integrity as defined in Technical Specifications, Section 1.7.</p> |
| <p>3.10 Reactor building pressure > 0 PSIG not due to meteorological conditions or below minimum allowable pressure.</p> | <p>a. As indicated by the reactor building pressure monitoring instrumentation.
b. Minimum allowable pressure per Technical Specification Figure 3.6-1.</p> |
| <p>3.11 Any fire in a permanent plant structure which cannot be controlled by the fire brigade within 10 minutes of discovery.</p> | <p>*Shift Foreman's judgement, based on advice of the fire brigade leader.</p> |
| <p>3.12 Any fire outside plant structures requiring offsite assistance.</p> | <p>Shift Foreman's judgement, based on request of the fire brigade leader for offsite firefighting assistance.</p> |
| <p>3.13 Any significant loss of assessment or communication capability which would reduce the ability to detect, assess, or respond to a plant emergency.</p> | <p>Shift Foreman's/Emergency Director's judgement.</p> |

*In many cases the Shift Foreman will assume the position of Fire Brigade Leader.

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|--|--|
| 3.14 Any security threat, attempted entry, or attempted sabotage. | Shift Foreman's/Emergency Director's judgement. |
| 3.15 Any natural phenomenon being experienced or projected beyond usual levels. | As indicated by any one of the following:
1. Any earthquake of a magnitude $> .01g$ as indicated by the "Theshold Seismic Condition" annunciator.
2. Projected river stage ≥ 302 ft. at the River Water In-take Structure.
3. Sustained winds > 75 mph as indicated on Wind Speed Recorder (CNSD-1A).
4. National Weather Service projection of hurricane force winds or a tornado. |
| 3.16 Onsite aircraft crash outside the protected area fence and not impacting on plant structures, or an onsite train derailment. | Shift Foreman's/Emergency Director's judgement. |
| 3.17 Any near or onsite explosion outside the protected area fence and not impacting on plant structures. | Shift Foreman's/Emergency Director's judgement. |
| 3.18 Any near or onsite toxic or flammable gas or liquid release which could affect the habitability required for normal plant operations. | Shift Foreman's/Emergency Director's judgement. |
| 3.19 Strikes of operating employees or security guards, or honoring of picket lines by these employees. | Shift Foreman's/Emergency Director's judgement. |
| 3.20 Transportation of any contaminated injured personnel from the site to an offsite medical facility. | Shift Foreman's/Emergency Director's judgement. |

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

Shift Foreman's/Emergency Director's Judgement

NOTE: In exercising the judgement 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.

4.0 EMERGENCY ACTIONS

- 4.1 Upon recognition that any of Emergency Action Levels of Section 3.0 above have been reached or exceed, the Shift Foreman shall 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 TWO. 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.)
- 4.2 The Shift Foreman shall assume the duties of the Emergency Director until properly relieved. He shall announce to the Control Room personnel that he, _____ (name) has assumed the duties of the Emergency Director.

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The Emergency Director shall periodically (every 1 hour min.) 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.

Initials

- ____ 4.3 Ensure Communicator has made notifications to persons and/or agencies per Attachment I, Section I.
- ____ 4.4 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.
- ____ 4.5 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented and/or the following Emergency Plan Implementing Procedures as required:
- a. Contaminated Injuries and Radiation Overexposure(1054.16)
 - b. High winds - Tornado/High Winds (1054.22).
- ____ 4.6 Assign a Communications Assistant and direct him to perform all applicable steps of 1054.8.

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- ____ 4.7 If local services (fire, ambulance, police) are required, ensure the Communicator has notified Dauphin County Emergency Operations Center and has requested 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 1054.19, Emergency Dosimetry, Security Badge Issuance.
- ____ 4.8 If changes in onsite or offsite radiation levels are expected, ensure the Radiological Assessment Coordinator has:
- a. Dispatched offsite and/or onsite radiation monitoring teams in accordance with EPIP 1054.10 and 1054.11.
 - b. Implemented Offsite Dose Projections procedure (1054.7).
- ____ 4.9 If additional resources or notifications are required, refer to Additional Assistance and Notification Procedure (1054.6).
- ____ 4.10 If the emergency involves in-plant radiological controls problems, ensure the Radiological Assessment Coordinator has implemented In-Plant Radiological Controls During Emergencies (1054.9).
- ____ 4.11 Assign an individual to complete Attachment II, Section I (Emergency Status Report) and give to the Radiological Assessment Coordinator to transmit to the Bureau of Radiation Protection.
- ____ 4.12 Ensure the Radiological Assessment Coordinator has completed Attachment II, Section II to transmit to the Bureau of Radiation Protection if a radioactive release has occurred or is occurring.

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- ___ 4.13 Ensure that communications and documentation are maintained per procedure Communications and Recordkeeping (1054.5).
- ___ 4.14 If applicable, ensure the operations Coordinator has dispatched Emergency Repair/Operations personnel to investigate the identified problem area in accordance with procedure 1054.21.
- ___ 4.15 30 minutes after 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).
- ___ 4.16 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 EPIP 1054.24), close out the Unusual Event by ensuring the Communicator has performed the notifications in Attachment I, Section II. Implement EPIP 1054.24.
 - ___ 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.
- ___ 4.17 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate EPIP 1054.14, monitoring/controlling liquid discharges.

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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 (1054.2)
 - b. Site Emergency (1054.3)
 - c. General Emergency (1054.4)
- _____ 5.2 The Unusual Event has been closed out since no recovery operations are required.
- _____ 5.3 The Unusual Event can be shifted to a recovery mode by implementing the procedure Recovery Operations (1054.24).

_____ Date

_____ Signature of Person Responsible
for Implementation 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, ignore Items 1 and 2 and proceed to Item 3.

- a. Telephone: _____
- b. Message:

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

Station Unit 2 calling. We have declared an Unusual Event at _____ hours, and (based upon Emergency Director judgement, (time)

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 no contact, proceed to step 2.d.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

b. Message:

This is Three Mile Island Nuclear Station Unit 2 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 2 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 (Cont'd)

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 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 (Cont'd)

INITIAL CONTACT

INITIAL

3. UNAFFECTED CONTROL ROOM

a. Telephone: _____ or inter Control Room Hot-Line

b. MESSAGE:

Give a brief description of Plant Status to Shift Supervisor/Shift Foreman.

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). 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:

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

4. INSTITUTE OF NUCLEAR POWER OPERATIONS

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

a. Telephone:

b. MESSAGE:

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

Station Unit 2 calling. We have declared an Unusual Event at _____
(time) hours. (Give a brief 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

Notification to be performed per procedure 1054.16.

b. Pennsylvania State Police

MESSAGE:

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

Unit 2 calling. We have declared an Unusual Event at _____
(time)

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

required assistance as follows:

(State any assistance required).

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

6. NUCLEAR REGULATORY COMMISSION OFFICE NO. Bethesda, MD.

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

a. Telephone: Emergency Notification System No. (ENS) (If ENS phone does not work refer to EPIP 1054.6, "Additional Assistance and Notification", for alternate methods.)

b. MESSAGE:

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

Unit 2 calling. We declared an Unusual Event at _____
(time)

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 checklist contains information desired by the NRC and may be helpful in providing follow-up information.

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ATTACHMENT I SECTION II

SECONDARY CONTACT

INITIAL

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

1. Bureau of Radiation Protection

a. Telephone: Radiological Line


b. MESSAGE:

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

Unit 2. We have closed-out the Unusual Event at _____ hours.
(time)

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

2. Unaffected Control Room

a. Telephone: 

b. MESSAGE:

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

3. Nuclear Regulatory Commission Office - Bethesda, Md.

a. Telephone: Emergency Notification System (ENS)

(RED PHONE)

b. MESSAGE:

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

Station Unit 2. We have closed-out the Unusual Event at
_____ hours.
(time)

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ATTACHMENT I SECTION II (Cont'd)

SECONDARY CONTACT


INITIAL

4. If applicable, notify the following persons and/or agencies of close-out of the Unusual Event:

- a. Hershey Medical Center: 
- 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 I
SECTION II (Cont'd)

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

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ATTACHMENT II EMERGENCY STATUS REPORT

SECTION I

1. CLASSIFICATION OF EMERGENCY: _____
2. WHAT IS THE STATUS OF THE PLANT:
 - A. REACTOR PRESSURE _____
 - B. REACTOR TEMPERATURE _____
 - C. METHOD OF PRESSURE CONTROL _____
 - D. METHOD OF TEMPERATURE CONTROL _____
3. WHAT ARE THE ENVIRONMENTAL CONDITIONS:
 - A. WIND SPEED _____
 - B. WIND DIRECTION _____
4. IS OFFSITE POWER AVAILABLE YES/NO
5. ARE BOTH DIESEL GENERATORS OPERABLE YES/NO
6. HAVE ANY PERSONNEL INJURIES OCCURRED YES/NO
 - IS THE INJURED PERSON(S) CONTAMINATED YES/NO
 - IF SO, INDICATE APPROXIMATE RADIATION AND/OR CONTAMINATION LEVELS
BELOW:
_____ MR/HR. _____ DPM/100 CM²
7. HAVE ALL OFFSITE NOTIFICATIONS BEEN MADE YES/NO
 - IF NOT, WHO HAS NOT BEEN NOTIFIED AND WHY

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION I (Cont'd)

8. IS THE EMERGENCY EXPECTED TO RESULT IN DETECTABLE CHANGES IN OFFSITE
RADIATION LEVELS YES/NO

IF YES--WHAT RECOMMENDATIONS HAVE BEEN MADE TO PEMA BY THE EMERGENCY
DIRECTOR _____

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 (1054.7)).
 - a) Noble gases _____ Ci/sec
 - b) Airborne _____ 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 airborne concentration at the nearest offsite downwind point
 - a) _____ mR/hr
 - b) _____ uCi/cc
 - c) _____ (Location)
4. Estimated duration of the release
 - a) If the release is terminated:
Start time _____ Stop Time _____ Duration _____
Start time _____ Stop time _____ Duration _____

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION II (Cont'd)

5. a. Based on projected dose rate, airborne 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

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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 (Cont'd)

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 _____ Stear 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 _____

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.

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ATTACHMENT III (Cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 1. (Cont'd)

Containment Pressure _____ Safety Relief Valve Actuation (Yes/No) _____

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/Safeguards²

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

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extent of Intrusion _____

Apparent Purpose _____

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

ATTACHMENT III (Cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 3. (Cont'd)

Strike/Demonstrations: Size of Group _____

Purpose _____

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) _____

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THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.2 ALERT

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2.0	0	24.0	2				
3.0	1	25.0	2				
4.0	2	26.0	2				
5.0	2	27.0	2				
6.0	2	28.0	2				
7.0	2	29.0	2				
8.0	2	30.0	2				
9.0	2						
10.0	2						
11.0	2						
12.0	2						
13.0	2						
14.0	2						
15.0	2						
16.0	2						
17.0	2						
18.0	2						
19.0	2						
20.0	2						
21.0	2						
22.0	2						

Unit 2 Staff Recommends Approval

Approval *SA Stange* Date 5/4/82
Cognizant Dept. Head

Unit 2 PORC Recommends Approval

SA Kunder Date 7/13/82
Chairman of PORC

Unit 2 Superintendent Approval

[Signature] Date 7/17/82

Mgr QA Approval

NA Date _____

NRC Approval

NA Date _____

Document ID: 0002w

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Revision 1

THREE MILE ISLAND NUCLEAR STATION

UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.2

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 2) 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: 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 10 CFR 20 radiation exposure limits.

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 10CFR50.72

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3.0 Emergency Action Levels

INITIATING CONDITION

INDICATION

- | | |
|---|---|
| 3.1 Reactor Coolant system pressure and temperature reach saturation conditions. | a. Reactor coolant temperature as indicated by R.C.S. hot leg temperature indicator(s)
b. Reactor coolant pressure as indicated by R.C.S. pressure indicator(s).
c. Saturation conditions as indicated by R.C.S. Pressure/Temperature curves. |
| 3.2 Reactor coolant system "A" or "B" hot leg temperature (T_h) $\geq 280^\circ\text{F}$ | As indicated by R.C.S. hot leg temperature indicator(s). |
| 3.3 Reactor coolant system pressure > 600 psig. | As indicated by R.C.S pressure indicator(s). |
| 3.4 Complete loss of all Source and Intermediate Range nuclear instrumentation. | Loss of indication on all channel of Source and Intermediate range nuclear instrumentation. |
| 3.5 Total reactor coolant system leakrate ≥ 50 gpm. | As measured by R.C.S. leakrate test. |
| 3.6 Reactor building pressure ≥ 2 psig but less than 4 psig. | As indicated by the reactor building pressure monitoring instrumentation. |
| 3.7 Indication of increasing fuel degradation with increasing radioactivity levels outside of the primary system boundaries | a. R.C.S. sampling indicates increasing levels of transuranics.
b. Area monitoring and/or survey indicates increasing levels radioactivity. |
| 3.8 Primary to secondary leakrate > 1 gpm but < 50 gpm, or secondary activity levels ≥ 1.0 uCi/ml. | Primary system leakrate attribute as primary to secondary leakage by sample analysis. |
| 3.9 Radiation levels or radioactive contamination which indicates a severe degradation in the control of radioactive materials. | Area monitoring and/or surveys indicate a major increase in radiation of contamination level. (Increase of Factor of 1000 above normal levels) |

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- 3.10 Any accidental, unplanned or uncontrolled radioactive release resulting in radiological effluents greater than Technical Specification instantaneous limits.
- 3.11 Sustained loss of all offsite power coincident with the loss of both diesel generators for less than 15 minutes.
- 3.12 Loss of all onsite D.C. power for less than 15 minutes.
- 3.13 Evacuation of control room anticipated or required with control of shutdown systems established from local stations.
- 3.14 Any severe natural phenomenon being experienced.
- 3.15 Any fire in a permanent plant structure requiring outside assistance or potentially affecting a safety related system.
- 3.16 An aircraft crash or other missile impact within the protected area or onto any permanent plant structure.
- a. Any valid unanticipated "Alarm" condition on any effluent radiation monitor.
- b. An offsite radiological monitoring team reports $>10\text{mR/hr}$ (gamma) but $<50\text{mR/hr}$ at any offsite location.
- Loss of all A.C. power indication from offsite transmission network and the failure of both diesel generators to start and/or load.
- All battery voltmeters read zero with no D.C. lighting or control power available.
- Shift Foreman's/Emergency Director judgement
- As indicated by any of the following:
1. Any earthquake of a magnitude $>$ OBE levels as indicated by an alarm on Panel 8.
 2. Actual river stage $>$ 302 ft. but $<$ 307 feet at the river water intake structure.
 3. Hurricane winds (75 mph sustained).
 4. Any tornado striking the facility.
- Shift Foreman's/Emergency Director's judgement based on advice of the Fire Brigade Leader.
- Shift Foreman's/Emergency Director's judgement

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- | | |
|---|---|
| 3.17 Any near or onsite toxic or flammable gas or liquid release which affects the habitability required for normal operations. | Shift Foreman's/Emergency Director's judgement. |
| 3.18 Known explosion damage to any permanent plant structure. | Shift Foreman's/Emergency Director's judgement. |
| 3.19 An ongoing security compromise. | Shift Foreman's/Emergency Director's judgement based on advice of plant security. |
| 3.20 Other plant conditions in progress or have occurred which may involve an actual or potential substantial degradation of | Shift Foreman's/Emergency Director's Judgement |

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

4.0 EMERGENCY ACTIONS

Initials

- 4.1 Upon recognition that any of the Emergency Action Levels of section 3.0 above have been reached or exceeded, the Shift Foreman shall announce or have announced, the following message over the public address sytem: (NOTE: TURN ON WHELEN SIREN SWITCH.)

"ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: AN ALERT HAS BEEN DECLARED IN UNIT 2. ALL MEMBERS OF THE

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ONSITE AND ONSHIFT 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). (NOTE: TURN OFF WHELEN SIREN SWITCH.)

- _____ 4.2 The Shift Foreman shall assume the duties of the Emergency Director until properly relieved. He shall announce to the Control Room personnel that he, _____ has assumed the duties of the Emergency Director.
(name)
- The Emergency Director shall periodically (every 1 hour min.) 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 If emergency is radiation-oriented, ensure that the Radiation Emergency Alarm has been sounded. (NOTE: TURN ON WHELEN SIREN SWITCH AND TURN OFF AFTER ALARM HAS BEEN SOUNDED.)
- _____ 4.4 Assign a Communicator to make notifications to persons and/or agencies per Attachment I, Section I.
- _____ 4.5 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.

5.0

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- ___ 4.6 Assign a Communications Assistant and direct him to perform all applicable steps of 1054.8.
- ___ 4.7 Depending on the Emergency Action Level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented and/or the following Emergency Plan Implementing Procedures as required:
- (a) Contaminated Injuries and Radiation Overexposure (1054.16).
 - (b) High Winds - Tornado/High Winds (1054.22)
- ___ 4.8 If local services (fire, ambulance, police) are required, ensure the Communicator has notified the Dauphin County Emergency Operations Center to 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 1054.19 Emergency Security/Dosimetry Badge Issurance.
- ___ 4.9 If changes in onsite or offsite radiation levels are expected, ensure the Radiological Assessment Coordinator has:
- (a) Dispatched offsite and/or onsite radiation monitoring teams in accordance with EPIP's 1054.10 and 1054.11.
 - (b) Implemented Offsite Dose Projections procedure (1054.7).
- ___ 4.10 Activate the Technical Support Center, procedure (1054.28), and the Operations Support Center, procedure (1054.29).
- ___ 4.11 If additional resources or notifications are required, refer to Additional Assistance and Notifications procedure (1054.6).

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- _____ 4.12 If the emergency involves in-plant Radiological Controls problems, ensure the Radiological Assessment Coordinator has implemented in-plant Radiological Controls During Emergencies (1054.9).
- _____ 4.13 Assign an individual to complete Attachment II, Section I (Emergency Status Report) and give it to the Radiological Assessment Coordinator to transmit to the Bureau of Radiation Protection.
- _____ 4.14 Ensure the Radiological Assessment Coordinator has completed Attachment II, Section II to transmit to the Bureau of Radiation Protection if a radioactive release has occurred or is occurring.
- _____ 4.15 Ensure that communications and documentation are maintained per procedure Communications and Recordkeeping (1054.5).
- _____ 4.16 If applicable, ensure that the Operations Coordinator has dispatched Emergency Repair/Operations personnel to investigate the identified problem area, in accordance with Emergency Repair/Operations procedure 1054.21.
- _____ 4.17 30 minutes after initial contact with PEMA, confirm that BRP verification has been made. If no verification, ensure the communicator has proceeded to Attachment I Section 1.2 (e).
- _____ 4.18 Ensure the Radiological Assessment Coordinator is providing ongoing dose estimates, for actual releases, to the Bureau of Radiation Protection.

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- ____ 4.19 If an accountability was required, and a report of the accountability has not been received within 30 minutes from the time it was ordered, contact the Shift Sergeant/Security Coordinator at _____ for a status report.
- ____ 4.20 If personnel are unaccounted for, ensure the Radiological Assessment Coordinator has initiated Search and Rescue procedure (1054.18).
- ____ 4.21 Evaluate dose projections and estimates and if necessary, recommend protective actions to the BRP consistent with the guidelines in Attachment I, Section IV.
- ____ 4.22 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 1054.24), assign a communicator to close out the Alert by performing the notifications in Attachment I, Section III. Implement the Recovery Procedure (1054.24).
- ____ (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 assigning a communicator to notify BRP on the Radiological Line and perform the remaining notifications in accordance with the Unusual Event procedure (1054.1).

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_____ (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.

_____ 4.23 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure (1054.14), 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 (1054.3)
- b. General Emergency (1054.4)

_____ 5.2 A lower class of emergency has been declared by the Emergency Director and Unusual Event procedure (1054.1) 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 (1054.24).

_____ DATE

SIGNATURE OF PERSON RESPONSIBLE FOR
IMPLEMENTING THE PROCEDURE

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_____ (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.

_____ 4.23 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure (1054.14), 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 (1054.3)
- b. General Emergency (1054.4)

_____ 5.2 A lower class of emergency has been declared by the Emergency Director and Unusual Event procedure (1054.1) 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 (1054.24).

_____ DATE

SIGNATURE OF PERSON RESPONSIBLE FOR
IMPLEMENTING THE PROCEDURE

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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 Operation Center

(If this is a reclassification notification, first advise BRP via Radiological line, ignore items 1 and 2, proceed to item 3)

a. Telephone: _____

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

b. MESSAGE:

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

Unit 2 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

ATTACHMENT I SECTION I (Cont'd)

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, Unaffected Control Room.)

a. Telephone: _____ (A diverter forwards this call to PEMA Duty Officer after working hours.)

NOTE: If no contact, proceed to step 2.d.

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

b. MESSAGE:

This is Three Mile Island Nuclear Station Unit 2 calling. We have an emergency. Give me the Operations Duty Officer.

(When Duty Office answers:)

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

Unit 2 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 . (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

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 (Cont'd)

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 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:

- 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.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

_____ b. Pennsylvania State Police

MESSAGE:

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

Unit 2 calling. We have declared an Alert at _____ hours.
(time)

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

assistance as follows: (State any assistance required.)

_____ c. Radiation Management Corporation

EMERGENCIES:

OFFICE

MESSAGE:

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

Unit 2 calling. We have declared an Alert at _____ hours.
(time)

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

description of the emergency).

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

d. American Nuclear Insurers

Message:

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

Unit 2 calling. We have declared an Alert at _____ hours.
(time)

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

description of the emergency).

DATE TIME COMPLETED BY

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIAL

6. 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 does not work REFER to EPIP 1054.6, "Additional Assistance and Notification," FOR ALTERNATE METHODS.)

b. MESSAGE:

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

Unit 2 calling. We have declared an Alert at _____ hours.
(time)

(Based upon Emergency Director judgment, use 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

ATTACHMENT I SECTION I (Cont'd)

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.
 - 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 expect the levels to be <50mRem/hr (gamma). We will be keeping the Bureau of Radiation Protection informed. (Give a short non-technical description of the emergency and the extent of the radioactive release, if appropriate).
-
-
-

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 maybe 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

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ATTACHMENT I SECTION III

INITIAL CONTACT

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

INITIAL

1. Bureau of Radiation Protection
 - a. Telephone: Radiological Line
 - b. MESSAGE:
This is _____ at the Three Mile Island Nuclear Station
(name/title)
Unit 2. We have closed out the Alert at _____ hours and
(time)
initiated recovery operations. Please notify PEMA. Dauphin,
Lancaster, York, Lebanon and Cumberland counties.
2. Unaffected Control Room
 - a. Telephone:
 - b. Message: Notify Shift Supervisor of close out of the Alert.
3. Nuclear Regulatory Commission Office - Bethesda, Md.
 - a. Telephone: Emergency Notification System (ENS)
(RED PHONE)

ATTACHMENT I SECTION III (Cont'd)

INITIAL CONTACT

INITIAL

b. MESSAGE:

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

Unit 2. We have closed out the Alert at _____ hours and
(time)

initiated recovery operations.

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

- ____ a. Hershey Medical Center:
- ____ 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 OF COMPLETION

COMPLETED BY

ALERT

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.

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ATTACHMENT II SECTION I

EMERGENCY STATUS REPORT

1. CLASSIFICATION OF EMERGENCY _____

2. WHAT IS THE STATUS OF THE PLANT:

A. REACTOR PRESSURE _____

B. REACTOR TEMPERATURE _____

C. METHOD OF PRESSURE CONTROL _____

D. METHOD OF TEMPERATURE CONTROL _____

3. WHAT ARE THE ENVIRONMENTAL CONDITIONS:

A. WIND SPEED _____

B. WIND DIRECTION _____

4. IS OFFSITE POWER AVAILABLE YES/NO

5. ARE BOTH DIESEL GENERATORS OPERABLE YES/NO

6. HAVE ANY PERSONNEL INJURIES OCCURED YES/NO

IS THE INJURED PERSON(S) CONTAMINATED YES/NO

IF SO, INDICATE APPROXIMATE RADIATION AND/OR CONTAMINATION

LEVELS BELOW:

_____ MR/HR. _____ DPM/100CM²

7. HAVE ALL OFFSITE NOTIFICATIONS BEEN MADE YES/NO

IF NOT, WHO HAS NOT BEEN NOTIFIED AND WHY

ATTACHMENT II SECTION I (Cont'd)

EMERGENCY STATUS REPORT

8. IS THE EMERGENCY EXPECTED TO RESULT IN DETECTABLE CHANGES IN OFFSITE RADIATION LEVELS YES/NO
- IF YES--WHAT RECOMMENDATIONS HAVE BEEN MADE TO PEMA BY THE EMERGENCY DIRECTOR

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ATTACHMENT II SECTION II

EMERGENCY STATUS REPORT

Fill out if a release has (is) occurred. 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 (1054.7)).
 - 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 _____
 - b. If the release is still in progress:
Start Time _____ Estimated duration _____ (hrs/min/sec)

*As per 1054.7

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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

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 _____

Meterology (wind speed) _____ From (direction) _____

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

Equipment/Property Damage _____

D. Cause of Event: _____

ATTACHMENT III (Cont'd)

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 (cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 1. (Cont'd)

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/Safeguards²

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

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extent of Intrusion _____

Apparent Purpose _____

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

ATTACHMENT III (cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 3. (Cont'd)

Strike/Demonstrations: Size of Group _____

Purpose _____

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/Mission Material _____

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

Media Interest (present, anticipated) _____

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Revision 2
07/19/82

THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.3 SITE EMERGENCY

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*NRC Office of the
Reactor Reg.*

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Unit 2 Staff Recommends Approval

Approval *J. A. [Signature]*
Cognizant Dept. Head

Date 5/7/82

Unit 2 PORC Recommends Approval

[Signature]
Chairman of PORC

Date 7/13/82

Unit 2 Superintendent Approval

[Signature]

Date 7/19/82

Mgr QA Approval

NA Date _____

NRC Approval

NA Date _____

Document ID: 0003w

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THREE MILE ISLAND NUCLEAR STATION UNIT NO. 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1054.3 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 2) 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.

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3.0 EMERGENCY ACTION LEVELS

<u>INITIATING CONDITION</u>	<u>INDICATION</u>
3.1 A known loss of coolant accident and/or reactor coolant system leakrate greater than SPC pump capacity.	a. Low levels in the Standby Reactor Coolant System Pressure Control System makeup tanks, (T-3,T-4), with SPC pump(s) at full capacity. b. Indicated level increase on reactor building sump manometer.
3.2 Any unanticipated criticality or indicated change in core geometry.	a. Source and Intermediate range nuclear instrumentation indicate criticality. b. Incore thermocouples indicated change in core heat distribution. c. Any indication, where in the judgement of the Shift Foreman/Emergency Director, a major change in core integrity has occurred.
3.3 Primary to secondary leakage > 50 gpm.	Primary leakrate > 50 gpm and attributed as primary to secondary leakage by sample analysis and secondary activity levels.
3.4 Loss of all offsite power coincident with the sustained loss of both diesel generators.	Loss of all A.C. power indication from offsite transmission network and the inability to start or load both diesel generators for greater than 15 minutes.
3.5 Sustained loss of all onsite D.C. power.	All battery voltmeters read zero with no D.C. lighting or control power available for greater than 15 minutes.
3.6 Any fire compromising the functions of any safety related system.	Shift Foreman's/Emergency Director's judgement.

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- | | | |
|------|--|---|
| 3.7 | Most or all assessment and/or communication capability lost and a plant condition projected or in progress which may involve actual or likely major failures of plant functions needed for protection of the public. | Shift Foreman's/Emergency Director's judgement. |
| 3.8 | Actual or projected doses at the exclusion area boundary greater than 50 mR/hr but less than 100 mR/hr (whole body). | a. Actual or projected indication on HPR-219 gas, particulate, or iodine channels, and using adverse meteorology (Class F) for determination.
b. Onsite monitoring team report of > 50 mR/hr but < 100 mR/hr at the exclusion area boundary. |
| 3.9 | Imminent loss of control of the physical security of the plant. | Shift Foreman's/Emergency Director's judgement based on advice of plant security. |
| 3.10 | Severe natural phenomena being experienced. | As indicated by:
1. An earthquake of magnitude > 12g horizontal and/or > 0.08g vertical acceleration (Safe Shutdown Earthquake).
2. River stage > 307 feet at the river water intake structure. |
| 3.11 | An aircraft crash or other missile impact, which affects vital structures by impact or fire. | Shift Foreman's/Emergency Director's judgement. |
| 3.12 | An explosion which causes severe damage to safe shutdown equipment. | Shift Foreman's/Emergency Director's judgement. |
| 3.13 | Entry of toxic or flammable gases into vital areas which affects operation of safe shutdown equipment. | Shift Foreman's/Emergency Director's judgement. |

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- | | |
|--|---|
| 3.14 Evacuation of the control room where control of the shutdown systems is not established within 15 minutes. | When the control room is evacuated and control of the shutdown systems cannot be established. |
| 3.15 Reactor building pressure ≥ 4 psig. | As indicated by the reactor building pressure monitoring system. |
| 3.16 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. | Shift Foreman's/Emergency Director's judgement.
<u>NOTE:</u> In exercising the judgment as to the need for declaring a Site Emergency, any uncertainty concerning the status of plant functions needed for protection of the public, the length of time the uncertainty exists, the prospects for early resolution of ambiguities, and the potential degradation of the plant functions needed for protection of the public should be considered; i.e., significant uncertainty as to the reliability of plant functions for protecting the public extending beyond a reasonable time period is a sufficient basis for declaring a Site Emergency. |

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4.0 EMERGENCY ACTIONS

Initial

4.1 Upon recognition that any of Emergency Action Levels have been reached or exceeded, the Shift Foreman shall 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 2. ALL NON-ESSENTIAL PERSONNEL IN UNIT 2 REPORT TO UNIT 2 WAREHOUSE. ALL NON-ESSENTIAL PERSONNEL IN THE UNIT 2 AREA REPORT TO THE UNIT 2 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).

NOTE: Turn off Whelen Siren Switch.

4.2 The Shift Foreman shall assume the duties of the Emergency Director until properly relieved. He shall announce to the Control Room personnel that he _____ (name) _____ has assumed the duties of the Emergency Director. The Emergency Director shall periodically (every 1 hour min.) 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.

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___ 4.3 If emergency is radiation-oriented, ensure that the Radiation Emergency Alarm has been sounded.

NOTE: Turn on Whelen Siren Switch and turn off after alarm has been sounded.

___ 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 1054.8.

___ 4.6 Contact the Duty Section Superintendent and discuss Plant Status. Inform him that the onsite and offsite Duty Section personnel are being called.

___ 4.7 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented (contaminated injuries and radiation overexposure (1054.16)).

___ 4.8 If local services (fire, ambulance, police) are required, ensure that the Communicator has notified the Dauphin County Emergency Operations Center and has requested 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 1054.19, Emergency Security/Dosimetry Badge Issuance.

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- ___ 4.9 If changes in onsite or offsite radiation levels are expected, ensure that Radiological Assessment Coordinator has:

 - a. Dispatched offsite and/or onsite radiation monitoring teams in accordance with EPIP's 1054.10 and 1054.11 and has sent a monitor to the Emergency Assembly Areas.
 - b. Implemented offsite dose projections procedure (1054.7).
- ___ 4.10 Activate the Technical Support Center (1054.28) and the Operations Support Center (1054.29).
- ___ 4.11 If additional resources or notifications are required, refer to additional Assistance and Notifications procedure (1054.6).
- ___ 4.12 If the emergency involves in-plant health physics problems, ensure that the Radiological Assessment Coordinator has implemented In-Plant Radiological Controls During Emergencies procedure (1054.9).
- ___ 4.13 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.
- ___ 4.14 Ensure that the Radiological Assessment Coordinator has completed Attachment II, Section II to transmit to the Bureau of Radiation Protection if a radioactive release has occurred or is occurring.
- ___ 4.15 Verify that communications and documentation are maintained per Communications and Recordkeeping procedure (1054.5).

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- ___ 4.16 If applicable, ensure that the Operations Coordinator has dispatched Emergency Repair/Operations personnel to investigate the identified problem area(s) in accordance with Emergency Repair/Operations procedure (1054.21).
- ___ 4.17 30 minutes after initial contact with PEMA, confirm that BRP verification has been made. If no verification, ensure the communicator has proceeded to Attachment I, Section 1, 2.(e).
- ___ 4.18 Instruct the Radiological Assessment Coordinator to provide ongoing dose estimates for actual releases to the Bureau of Radiation Protection.
- ___ 4.19 If a report of the accountability has not been received within 30 minutes from the time it was ordered, contact the Shift Sergeant/Security Coordinator at _____ for a status report.
- ___ 4.20 If personnel are unaccounted for, initiate Search and Rescue procedure (1054.18).
- ___ 4.21 If site evacuation is deemed necessary, announce or have announced one of the following messages 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 PLUME 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.

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- ____ 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 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, 1054.24), close out the Site Emergency by performing the notifications in Attachment I, Section III. Implement the Recovery Procedure (1054.24).
 - ____ 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 (1054.4).

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____ 4.24 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure 1054.14, 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 (1054.4) 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 (1054.1)
- b. Alert (1054.2)

____ 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 1054.24.

Date

Signature of Person Responsible
for Implementing Procedure

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ATTACHMENT I SECTION I

INITIAL CONTACT

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

INITIALS

1. Dauphin County Emergency Operation Center

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

a. Telephone: 

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

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

Mile Island Nuclear Station Unit 2 calling. We have declared a Site Emergency at _____ hours. (Based upon
(time)

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

- (1) We have not had a radioactive release, but do not expect this situation to result in detectable changes in offsite radiation levels, 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

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 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.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

- a. Telephone:

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

NOTE: If no contact, proceed to Step 2.d.

- b. MESSAGE:

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

Nuclear Station Unit 2 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 2 calling. We have declared a Site Emergency at _____ hours. We request that you
(time)

contact 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

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

- (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 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.

ATTACHMENT I SECTION I
INITIAL CONTACT

INITIAL

- _____ 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.
- _____ 3. Unaffected Control Room
- a. Telephone: _____ or inter Control Room hotline.
- b. MESSAGE: Give a brief description of plant status to Shift Foreman/Shift Supervisor.
- Nuclear Station Unit 2 calling. We have declared a Site Emergency at _____ hours. (Based upon
(time)
- Emergency Director's judgment, use 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

ATTACHMENT I SECTION I

INITIAL CONTACT

(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.

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 expect the levels to be < 100 mRem per hour (gamma). We will be keeping the Bureau of Radiation Protection informed. (Give a short non-technical description of the emergency and the extent of the radioactive release, including affected populations and areas).

ATTACHMENT I SECTION I

INITIAL CONTACT

4. Institute of Nuclear Power Operations

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

a. Telephone:

b. MESSAGE:

This is _____ at Three Mile
(name/title)

Island Nuclear Station Unit 2 calling. We have declared
a Site Emergency at _____ hours.
(time)

(Give a brief description of the emergency).

5. Babcock and Wilcox -

This is _____ at Three
(name/title)

Mile Island Nuclear Station Unit 2 calling. We have declared
a Site Emergency at _____ hours. (Have a prepared Emergency
(Time)

Status Report (Attachment II) available for reference while
giving a brief description of the emergency).

ATTACHMENT I SECTION I
INITIAL CONTACT

6. American Nuclear Insurers

MESSAGE:

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

Nuclear Station Unit 2 calling. We have declared a Site
Emergency at _____ hours. (Give a brief
(time)
description of the 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:

MESSAGE:

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

ATTACHMENT I SECTION I
INITIAL CONTACT

INITIAL

Nuclear Station Unit 2 calling. We have declared a Site
Emergency at _____ hours. (Give a brief
(time)
description of the emergency).

We have had a radioactive release.

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

time. (Describe the assistance required, if any).

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

_____ a. Hershey Medical Center

_____ b. Pennsylvania State Police

MESSAGE:

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

Nuclear Station Unit 2 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).

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

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 does not work refer to EPIP 1054.6 "Additional Assistance and Notification", for alternate methods).

b. MESSAGE:

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

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.

Date

Time Completed

Completed By

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						

*Optional

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ATTACHMENT I SECTION III

SECONDARY CONTACT

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

INITIAL

 1. Bureau of Radiation Protection

a. Telephone: Radiological Line

b. MESSAGE:

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

Island Nuclear Station Unit 2 calling. We have closed
out the Site Emergency at _____ hours and initiated
(time)

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

 2. Unaffected Control Room

a. Telephone:

b. MESSAGE:

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

Nuclear Station Unit 2 calling. We have closed out the
Site Emergency at _____ hours and initiated recovery
(time)

operations.

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:
 - b. Pennsylvania State Police:
 - c. Radiation Management Corp. (RMC):
 - Emergencies: (0800-1700)
 - OR (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
EMERGENCY STATUS REPORT
SECTION I

1. CLASSIFICATION OF EMERGENCY: _____

2. WHAT IS THE STATUS OF THE PLANT:

A. REACTOR PRESSURE _____

B. REACTOR TEMPERATURE _____

C. METHOD OF PRESSURE CONTROL _____

D. METHOD OF TEMPERATURE CONTROL _____

3. WHAT ARE THE ENVIRONMENTAL CONDITIONS:

A. WIND SPEED _____

B. WIND DIRECTION _____

4. IS OFFSITE POWER AVAILABLE YES/NO

5. ARE BOTH DIESEL GENERATORS OPERABLE YES/NO

6. HAVE ANY PERSONNEL INJURIES OCCURRED YES/NO

IS THE INJURED PERSON(S) CONTAMINATED YES/NO

IF SO, INDICATE APPROXIMATE RADIATION AND/OR CONTAMINATION LEVELS

BELOW:

_____ MR/HR. _____ DPM/100 CM²

7. HAVE ALL OFFSITE NOTIFICATIONS BEEN MADE YES/NO

IF NOT, WHO HAS NOT BEEN NOTIFIED AND WHY

8. IS THE EMERGENCY EXPECTED TO RESULT IN DETECTABLE CHANGES IN OFFSITE RADIATION LEVELS YES/NO

IF YES--WHAT RECOMMENDATIONS HAVE BEEN MADE TO PEMA BY THE EMERGENCY DIRECTOR _____

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 (1054.7)).
 - (a) Noble gases _____ Ci/sec
 - (b) Airborne _____ 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 airborne concentration at the nearest offsite downwind point?
 - (a) _____ mR/hr
 - (b) _____ uCi/cc
 - (c) _____ (Location)
4. Estimated duration of the release
 - (a) If the release is terminated:
Start Time _____ Stop Time _____
Duration _____

ATTACHMENT II SECTION II
EMERGENCY STATUS REPORT

(b) If the release is still in progress:

Start Time _____

Estimated Duration _____ (hrs/min/sec)

5. a. Based on projected dose rates, airborne 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: _____

E. Licensee Actions:

Taken _____

Planned _____

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ATTACHMENT III (Cont'd)

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) _____

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) _____

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 (Cont'd)

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 2

Bomb Threat: Search Conducted (Yes/No) _____ Search Results _____
 Site Evacuated (Yes/No) _____
Intrusion: Insider _____ Outsider _____
 Point of Intrusion _____ Extent of Intrusion _____
 Apparent Purpose _____
Strike Demonstrations: Size of Group _____
 Purpose _____
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) _____

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

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THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 2 EMERGENCY PLANNING IMPLEMENTING PROCEDURE 1054.4 CONTROLLED COPY FOR
GENERAL EMERGENCY USE IN UNIT II ONLY

*NRC Office of Nuc.
Reactor Reg.*

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Unit 2 Staff Recommends Approval

Approval *STKrange* Date 5/17/82
Cognizant Dept. Head

Unit 2 PORC Recommends Approval

Jo Kunder Date 7/13/82
Chairman of PORC

Unit 2 Superintendent Approval

JP King Date 7/19/82

Mgr QA Approval

NA Date _____

NRC Approval

NA Date _____

Document ID: 0004w

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THREE MILE ISLAND NUCLEAR STATION EMERGENCY PLANNING IMPLEMENTING PROCEDURE 1054.4 GENERAL EMERGENCY

1.0 PURPOSE

The purpose of this procedure is to define the conditions that shall be regarded as a General Emergency for Three Mile Island Nuclear Station (Unit 2) 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 Plant Operations Group will take the actions necessary to implement this procedure upon identification of one or more of the Emergency Action Levels listed in Section 3.0 of this procedure. The Emergency Director shall then assume responsibility for the continuing implementation of 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 10 CFR 20 radiation exposure limits.

1.0

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2.0 ATTACHMENTS

- 2.1 Attachment I, General 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

INITIATING CONDITIONS

- 3.1 Actual or Projected doses at the Exclusion Area Boundary $> 100\text{mr/hr}$, (whole body).

- 3.2 Significant levels of radiation in the reactor containment building and potential loss of containment integrity.

- 3.3 Loss of physical control of the facility.

INDICATION

- a. Actual or projected indication on HP-R-219 Gas, Particulate, or Iodine channels, using actual meteorology for determination.
- b. Onsite monitoring team reports of $> 100\text{ mr/hr}$ at the Exclusion Area Boundary.

As indicated by either:

- a. Reactor building pressure $> 4\text{ PSIG}$ and high radiation and/or activity levels present.
- b. Reactor building has indicated high radiation and/or activity levels and hydrogen concentration is > 3 percent by volume.

Shift Foreman's/Emergency Director's judgement based on advice from Plant Security.

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- 3.4 Other plant conditions are in progress or have occurred which may involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity, or may make release of significant amounts of radioactivity in a short time possible.

Shift Foreman's/Emergency
Director Judgement

NOTE: In exercising the judgment as to the need for declaring a General Emergency, any uncertainty concerning the potential for large releases of radioactive material, the length of time the uncertainty exists, and the prospects for the early resolution of ambiguities should be considered, i.e., significant uncertainty as to the potential for large releases of radioactive material extending beyond a reasonable time period is a sufficient basis for declaring a General Emergency.

4.0 EMERGENCY ACTIONS

INITIALS

- ____ 4.1 Upon recognition that any of the Emergency Action Levels have been reached or exceeded, the Shift Foreman shall 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 GENERAL EMERGENCY IN UNIT II HAS BEEN DECLARED. ALL NON-ESSENTIAL PERSONNEL IN UNITS I AND II PROCEED TO (500 KV SUBSTATION/- MIDDLETOWN SUBSTATION) (Depending on plume pathway). UPON ARRIVAL, ALL SUPERVISORS WILL ASSEMBLE AND LOG THEIR PERSONNEL. PERSONNEL IN H.P. CONTROLLED AREAS REPORT TO 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)

NOTE: Turn off Whelen Siren Switch.

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INITIALS

___ 4.2 The Shift Foreman shall assume the duties of the Emergency Director until properly relieved. He shall announce to the Control Room personnel that he, (name) has assumed the duties of the Emergency Director.

The Emergency director shall periodically (every 1 hour min.) 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 Direct the sounding of the Radiation Emergency Alarm.

NOTE: Turn on Whelen Siren Switch and turn off after alarm has been sounded.

___ 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 1054.8

___ 4.6 Contact the Duty Section Superintendent, and discuss plant status and that the on-site and off-site duty section personnel are being called.

___ 4.7 Depending on the emergency action level which was reached or exceeded, ensure that the appropriate Emergency Operating Procedures have been implemented (contaminated injuries and radiation overexposure (1054.16)).

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INITIALS

- ___ 4.8 If local services (fire, ambulance, police) are required, ensure that the Communicator has notified Dauphin County Emergency Operations Center and requested 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 1054.19 (Emergency Security/Dosimetry Badge Issuance.)
- ___ 4.9 Ensure the Radiological Assessment Coordinator has:
- a. Dispatched off-site and/or on-site radiation monitoring teams in accordance with Offsite Radiation Monitoring procedure (1054.11) and Onsite Radiation Monitoring procedure (1054.10).
 - b. Implemented Offsite Dose Projections procedure (1054.7).
- ___ 4.10 Activate the Technical Support Center (1054.28) and the Operations Support Center (1054.29).
- ___ 4.11 If additional resources or notifications are required, refer to additional Assistance and Notification procedure (1054.6).
- ___ 4.12 If the emergency involves in-plant Radiological Controls problems, ensure that the Radiological Assessment Coordinator has implemented In-Plant Radiological Controls During Emergencies procedure (1054.9).
- ___ 4.13 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.
- ___ 4.14 Ensure the Radiological Assessment Coordinator has completed Attachment II, Section II to transmit to the Bureau of Radiation Protection.

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INITIALS

- ___ 4.15 Verify that communications and documentation are maintained per Communications and Recordkeeping procedure (1054.5).
- ___ 4.16 If applicable, ensure that the Operations Coordinator has dispatched Emergency Repair/Operations Personnel to investigate the identified problem areas(s) in an accordance with Emergency Repair/Operations procedure 1054.21.
- ___ 4.17 30 minutes after initial contact with PEMA, confirm that BRP verification has been made. If no verification, ensure the Communicator has proceeded to Attachment I, Section 1, Step 2(e).
- ___ 4.18 Ensure the Radiological Assessment Coordinator has provided ongoing dose estimates for actual releases to the Bureau of Radiation Protection.
- ___ 4.19 If a report of Accountability has not been received within 30 minutes from the time it was ordered, contact the Shift Sergeant/Security Coordinator at _____ for a status report.
- ___ 4.20 If personnel are unaccounted for, ensure the Radiological Assessment Coordinator has initiated Search and Rescue procedure (1054.18).
- ___ 4.21 Evaluate dose projections and estimates and, if necessary, recommend protective actions to the BRP, consistent with the guidelines in Attachment I, Section IV.

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INITIALS

_____ 4.22 Based upon assessment of plant conditions, the Emergency Director shall either close out the General Emergency and enter the Recovery Phase or downgrade to a lower class as follows:

- a. If Recovery Phase criteria have been met (see procedure 1054.24),
- b. If Recovery Phase criteria have not been met, but General Emergency Action levels are no longer being exceeded, de-escalate to a lower emergency class by having the Communicator notify BRP on the Radiological Line and perform the remaining notifications in accordance with the applicable emergency procedure as specified in Step 5.1.

_____ 4.23 If necessary, due to potential contamination of normally non-contaminated sumps and/or tanks, or the need to closely monitor liquid releases, initiate procedure 1054.14 (monitoring/controlling liquid discharges).

5.0 FINAL CONDITIONS

_____ 5.1 A lower class of emergency has been declared by the Emergency Director and one of the following procedures is being implemented:

- a. Site Emergency (1054.3)
- b. Alert (1054.2)
- c. Unusual Event (1054.1)

_____ 5.2 The General Emergency has been closed out with the concurrence of the Emergency Support Director, since no recovery operations are required.

_____ 5.3 The General Emergency has been shifted to a recovery mode by implementing the procedure Recovery Operations (1054.24).

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

- _____ b. MESSAGE:
- Give a brief description of plant status to Shift Supervisor/Shift Foreman.
- _____
- _____
- _____

4. Parent and Four affected Counties

- a. Telephone each county separately and deliver the message
1. Dauphin -
 2. York -
 3. Lancaster
 4. Lebanon -
 5. Cumberland -

b. MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency at _____ hours. Give a brief description of the emergency.
(time)

NOTE: Each county must be notified independently and the message transmitted.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

- _____ c. Give a short, non-technical description of the emergency and the extent of the radioactive release, and 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 situation. If unable to contact PEMA (line busy), call Dauphin County and notify them that BRP has not verified initial contact. Instruct Dauphin County to contact PEMA and/or BRP.

- _____ 3. Unaffected Control Room
 - a. Telephone: Use _____ or inter-Control Room Hot-Line.

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

b. MESSAGE: ASK FOR THE DUTY OFFICER

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

Station Unit 2 calling. We have declared an Emergency. Give
me the Operations Duty Officer. (When Duty Officer answers):

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

Unit 2 calling. We have declared a General Emergency at _____
(time)

hours. We request that you contact 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, however, we have
the potential for significant radioactive release.

OR

2) We have had a radioactive release and offsite radiation
levels are expected to be > 100 mRem/hour (gamma). We
will be keeping the Bureau of Radiation Protection
informed.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

Give a short non-technical description of the emergency, the extent of the radioactive release, and 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: Where offsite 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 a PEMA Duty Officer after working hours).

- 1) If no contact, proceed to Step 2.d.

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, go to Item 3, Unaffected Control Room).

a. Telephone: _____

1) If no contact, activate the Dauphin County Radio System.

b. MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency
at _____ hours. (Based upon Emergency Director judgement,
(time)

use one of the following statements):

1) We have not had a radioactive release, however we have
the potential for a significant radioactive release

OR

2) We have had a radioactive release and offsite radiation
levels are expected to be > 100 mRem per hour (gamma).
We will be keeping the Bureau of Radiological Protection
informed.

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

5. Institute of Nuclear Power Operations

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

a. Telephone :

b. MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency
at _____ hours. Give a brief description of the emergency.
(time)

6. Pennsylvania State Police

MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency
at _____ hours. We have/have not had a radioactive release. We
(time)

require immediate traffic control assistance in the vicinity of the
(North/South) gate.

7. Radiation Management Corporation

Emergencies: (0800-1700)

(1700-0800)

Office: (0800-1700)

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ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

MESSAGE:

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

Station Unit II calling. We declared a General Emergency at _____
(time)

hours. Give a brief description of the emergency.

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

require assistance at this time. Describe the assistance required
if any.

____ 8. American Nuclear Insurers

MESSAGE:

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

Unit 2 calling. We have declared a General Emergency at _____
(time)

hours. Give a brief description of the emergency. We _____
(have/have not)

had a radioactive release.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

9. Babcock and Wilcox

MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency
at _____ hours. Have a prepared Emergency Status Report
(time)

(Attachment II) available for reference while giving a brief
description of the emergency).

10. If medical assistance is required, notify the following agency:

a. Hershey Medical Center

Notification to be performed in accordance with procedure
1054.16.

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

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

a. Telephone: NRC Emergency Notification System (ENS)

(RED PHONE) (If ENS phone does not work refer
to EPIP 1054.6 "Additional Assistance and Noti-
fication", for alternate methods.

ATTACHMENT I SECTION I (Cont'd)

INITIAL CONTACT

INITIALS

b. MESSAGE:

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

Station Unit 2 calling. We have declared a General Emergency
at _____ hours. (Based on Emergency Director judgement,
(time)

issue one of the following statements):

1) We have not had a radioactive release, however, we have
the potential for Significant radioactive release.

OR

2) We have had a radioactive release and offsite radiation
levels are expected to be >100 mRem/hour (gamma). 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 potentially
affected populations and areas.

NOTE: After initial NRC notification is complete per
Attachment I, Section 1 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

FOR USE IN UNIT II ONLY

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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						

*Optional

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIALS

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

1. Bureau of Radiation Protection

- a. Telephone: Radiological Line
- b. MESSAGE:

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

Unit 2 calling. We have closed out the General Emergency
at _____ hours and initiated recovery operations. Please
(time)

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

2. Unaffected Control Room

- a. Telephone:
- b. Message:

Notify Shift Supervisor of close out of the General Emergency.

3. Nuclear Regulatory Commission Office- Bethesda, Md.

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

- b. MESSAGE:

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

Unit 2 calling. We have closed-out the General Emergency
at _____ hours and initiated recovery operations.
(time)

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ATTACHMENT I SECTION III (Cont'd)

SECONDARY CONTACT

INITIALS

- _____ 4. If applicable, notify the following persons and/or agencies of the close-out of the General Emergency:
- a. Hershey Medical Center:
 - b. Pennsylvania State Police:
 - c. Radiation Management Corporation (RMC)
Emergencies: (0800-1700)
(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.

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ATTACHMENT II SECTION I

EMERGENCY STATUS REPORT

1. CLASSIFICATION OF EMERGENCY _____
2. WHAT IS THE STATUS OF THE PLANT?:
 - A. REACTOR PRESSURE _____
 - B. REACTOR TEMPERATURE _____
 - C. METHOD OF PRESSURE CONTROL _____
 - D. METHOD OF TEMPERATURE CONTROL _____
3. WHAT ARE THE ENVIRONMENTAL CONDITIONS:
 - A. WIND SPEED _____
 - B. WIND DIRECTION _____
4. IS OFFSITE POWER AVAILABLE YES/NO
5. ARE BOTH DIESEL GENERATORS OPERABLE YES/NO
6. HAVE ANY PERSONNEL INJURIES OCCURRED YES/NO
 - IS ANY INJURED PERSON(S) CONTAMINATED YES/NO
 - IF SO, INDICATE APPROXIMATE RADIATION AND/OR CONTAMINATION LEVELS BELOW:
_____ MR/HR. _____ DPM/100CM²
7. HAVE ALL OFFSITE NOTIFICATIONS BEEN MADE YES/NO
IF NOT, WHO HAS NOT BEEN NOTIFIED AND WHY

ATTACHMENT II SECTION I (Cont'd)

EMERGENCY STATUS REPORT

8. IS THE EMERGENCY EXPECTED TO RESULT IN DETECTABLE CHANGES IN OFFSITE
RADIATION LEVELS? YES/NO

IF YES--WHAT RECOMMENDATIONS HAVE BEEN MADE TO PEMA BY THE EMERGENCY
DIRECTOR

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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 Rate Calculation procedure 1054.7).
 - 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 the 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 _____
 - b) If the release is still in progress:
Start time _____
Estimated duration _____ (hrs/min/sec)

ATTACHMENT II SECTION II (Cont'd)

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 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

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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 (Cont'd)

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.

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ATTACHMENT III (Cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 1. (Cont'd)

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 2

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

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extent of Intrusion _____

Apparent Purpose _____

Strike Demonstrations: Size of Group _____

Purpose _____

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

ATTACHMENT III (Cont'd)

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

F. 3. (Cont'd)

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) _____