

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

55-289

1004.30
Revision 1
08/23/83

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.30
ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

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THREE MILE ISLAND NUCLEAR STATION
UNIT 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.30
ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

1.0 PURPOSE

The purpose of this procedure is to provide guidelines for the Environmental Assessment Coordinator to activate the Environmental Assessment Command Center. The Environmental Assessment Coordinator is responsible for implementing this procedure.

2.0 ATTACHMENTS

- 2.1 Attachment I - Environmental Assessment Shift Coordinator Checklist
- 2.2 Attachment II - Environmental Assessment Communicator Checklist
- 2.3 Attachment III - Group Leader Offsite Dose Calculations Checklist
- 2.4 Attachment IV - Group Leader - Meteorology Checklist

3.0 EMERGENCY ACTION LEVELS

- 3.1 This procedure is to be initiated upon declaration of any of the following:
 - 3.1.1 Site Emergency (Procedure 1004.3)
 - 3.1.2 General Emergency (Procedure 1004.4)
 - 3.1.3 At any other time when the Emergency Director feels plant conditions warrant it.

4.0 EMERGENCY ACTIONS

Initials

- 4.1 The Environmental Assessment Shift Coordinator shall activate the Environmental Assessment Command Center by directing that the appropriate personnel assume those positions and perform the actions listed for those positions as follows:

Initials

- ____ 4.1.1 Environmental Assessment Shift Coordinator:
Report to Environmental Assessment Command Center and perform the Environmental Assessment Shift Coordinator's Checklist (Attachment I).
- ____ 4.1.2 Environmental Assessment Communicator:
Report to the Environmental Assessment Command Center and complete the Environmental Assessment Communicator's Checklist (Attachment II).
- ____ 4.1.3 Group Leader-Offsite Dose Calculations:
Report to the Environmental Assessment Command Center and complete the Group Leader-Offsite Dose Calculation Checklist (Attachment III).
- ____ 4.1.4 Group Leader-Meteorology
Report to the Environmental Assessment Command Center and complete the Group Leader - Meteorology Checklist (Attachment IV).
- ____ 4.1.5 Assistant Environmental Assessment Coordinator:
Report to Near-site Emergency Operations Facility and complete the Assistant Environmental Assessment Coordinator's Checklist (refer to 1004.27, Activation of the NEOF).

5.0 FINAL CONDITIONS

INITIALS

- ____ 5.1 The Environmental Assessment Command Center is operational with the desired positions manned and functional. Communications are established among the necessary organizations and agencies.

ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

ATTACHMENT I

ENVIRONMENTAL ASSESSMENT SHIFT COORDINATOR CHECKLIST

NOTE: The Environmental Assessment Coordinator should assist in completing this checklist.

Initials

- ___ 1. Assign personnel to assume the following positions, as necessary, and direct those personnel to report to the area indicated and complete the required checklists (located in the kits in those areas).
- ___ a. Environmental Assessment Communicator - EACC
- ___ b. Group Leader-Offsite Dose Calculations - EACC
- ___ c. Group Leader-Meteorology - EACC
- ___ d. Assistant Environmental Assessment Coordinator Near-site
Emergency Operations Facility (NEOF)
- ___ 2. Assign a person to maintain the Environmental Assessment Command Center Status Board(s).
- ___ 3. When the Environmental Assessment Communicator returns the completed checklist indicating a state of Communication readiness, inform the Environmental Assessment Coordinator that the Environmental Assessment Command Center is ready for operation.

ATTACHMENT I (Cont'd)

Initials

- ___ 4. Contact the Assistant Environmental Assessment Coordinator at the Near-site Emergency Operations Facility and advise him of Environmental Assessment Command Center readiness.
- ___ 5. Upon instruction from the Environmental Assessment Coordinator, notify the Radiological Assessment Coordinator via Environmental Assessment Line of the proposed time of assumption of responsibility of offsite radiological, meteorological, and environmental monitoring.
- ___ 6. Receive confirmation from the RAC that the Emergency Director has approved transfer of off-site monitoring team control.
- ___ 7. Upon direction of the Environmental Assessment Coordinator, instruct the Environmental Assessment Coordinator to provide the following message to field survey teams:

"Attention field monitoring personnel. Upon authority of _____ the Environmental Assessment Command Center is activated. At _____ all field monitoring communications will be directed to the Environmental Assessment Command Center. This will include all offsite radiological, meteorological, and environmental monitoring teams. All on-site Rad monitoring teams will continue to report data to the RAC in the Control Room. All

ATTACHMENT I (Cont'd)

teams respond confirming message." (Repeat message
slowly and request team acknowledgement of message.

Initials

- ___ 8. Log _____ the Environmental Assessment Command Center
(Date/Time)
is activated and field monitoring message sent.

: NOTE: Effective at this time, the Radiological Assessment :
: Coordinator will have responsibilities for on-site :
: monitoring and implant Radiological Controls only, :
: unless otherwise notified by the Emergency Director. :

- ___ 9. Dispatch additional monitoring teams and mobile lab as instructed by
the Environmental Assessment Coordinator (refer to EPIP 1004.12,
Environmental Monitoring).

NAME _____ TIME _____ DATE _____
(Environmental Assessment Shift
Coordinator)

ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

ATTACHMENT II

ENVIRONMENTAL ASSESSMENT COMMUNICATOR CHECKLIST

Initials

- ___ 1. Ensure that the dedicated phone lines are operational to the following locations:
 - a. Environmental Assessment Line to RAC
 - b. Environmental Assessment Command Center line to Near-site Emergency Operations Facility
- ___ 2. Turn on the base station radio.
- ___ 3. Assign personnel to the following positions as necessary:

: NOTE: Instruct the phone talkers to record all emergency :
: related calls on the Telephone Communications Log- :
: sheet (Attachment III of the Communications and :
: Recordkeeping EPIP, 1004.5). :

- ___ a. Phone talkers to answer the conventional telephones.
- ___ b. Phone talkers to man the Environmental Assessment line.
- ___ 4. Ensure all phone talkers have an adequate supply of communications log sheets.
- ___ 5. Collect checklists from the following personnel:
 - ___ a. Assistant Environmental Assessment Coordinator (via Telecon, telecopier, or runner from Near-site Emergency Operations Facility).
 - ___ b. Group Leader-Offsite Dose Calculations (Environmental Assessment Command Center)

ATTACHMENT II (Cont'd)

Initials

- ____ c. Group Leader-Meteorology (Environmental Assessment Command Center)
- ____ 6. Notify the Environmental Assessment Shift Coordinator that the duties of the Environmental Assessment Communicator have been assumed and return this form, along with the checklists collected in Step 5 above, to him.

NAME _____ TIME _____ DATE _____
(Environmental Assessment Communicator)

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ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

ATTACHMENT III

GROUP LEADER-OFFSITE DOSE CALCULATIONS CHECKLIST

Initials

___ 1. Ensure proper operation of Environmental Assessment computer(s) and peripheral devices.

___ 2. Establish a computer dose assessment calculation verification schedule.

___ 3. Return completed checklist to the Environmental Assessment Communicator.

NAME _____ TIME _____ DATE _____
(Group Leader-Offsite Dose Calculations)

ACTIVATION OF THE ENVIRONMENTAL ASSESSMENT COMMAND CENTER

ATTACHMENT IV

GROUP LEADER-METEOROLOGY

Initials

- ___ 1. Ensure proper operation of necessary equipment associated with the Meteorological Tower.
- ___ 2. Establish communications/data link with National Weather Service.
- ___ 3. Verify proper operation of computer (CRT).
- ___ 4. Ensure operation of phone link to Meteorological Tower Computer.
- ___ 5. Return completed checklist to Environmental Assessment Communicator.

NAME _____ DATE _____ TIME _____
(Group Leader-Meteorology)

1004.24
Revision 2
08/23/83


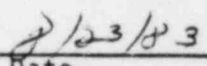
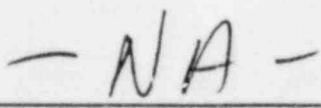
IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.24
RECOVERY OPERATIONS

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THREE MILE ISLAND NUCLEAR STATION
UNIT NO. 1 EMERGENCY PLAN IMPLEMENTING PROCEDURE 1004.24
RECOVERY OPERATIONS

1.0 PURPOSE

This procedure provides general guidance to assist the implementation of a recovery effort.

The Emergency Director and the Emergency Support Director are responsible for implementing this procedure.

2.0 ATTACHMENTS

2.1 Attachment 1 - Long Term Recovery Organization

3.0 EMERGENCY ACTIONS LEVELS

3.1 When in the judgment of the Emergency Director, with concurrence from the Emergency Support Director, the emergency situation is under control as evidenced by the following criteria:

- a. Radiation levels in all in-plant areas are stable or decreasing.
- b. Releases of radioactive materials to the environment are under control or have ceased.
- c. Any fire, flooding or similar conditions are controlled or have ceased.
- d. Containment pressure is at normal levels
- e. Reactor plant is stable and in a long term safe shutdown condition.

Proceed to Section 4.0 Recovery and establish the Long Term Recovery Organization or close-out the emergency per step 4.1.

3.2 If all of the above criteria are not met but the plant is proceeding in an orderly fashion towards meeting the above criteria,

the ESD/ED may de-escalate to a lower emergency classification, implement a two or three section watchbill, and maintain the emergency response capability at the fully-manned level; or implement a reduced staffing of the emergency organizations commensurate with plant conditions until such time as recovery or close-out is appropriate.

- 3.3 As a minimum for an Alert all the onsite emergency facilities (TCS, OSC and ECC) must be manned. As a minimum for a Site or General Emergency all the onsite and offsite emergency facilities must be manned.

4.0 EMERGENCY ACTIONS

Initials

- ___ 4.1 If the recovery phase criteria have been met, but long term recovery operations are not necessary, close out the emergency by making the notifications in Attachment 1, Section 3 of 1004.1, 1004.2, 1004.3, or 1004.4 and terminate this procedure.
- ___ 4.2 Notify all members of the long term recovery organization that the recovery operations are about to commence.
- ___ 4.3 Assemble and brief all members of the recovery organization prior to their assuming duties.
- ___ 4.4 Establish an organizational structure as shown in Attachment 1.
- ___ 4.5 Inform all activated emergency facilities that recovery operations are in effect.
- ___ 4.6 Announce or have announced the following message over the public address system (merged):

"ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: THE (UNUSUAL EVENT/ALERT/SITE EMERGENCY/GENERAL EMERGENCY) HAS BEEN TERMINATED AND THE EMERGENCY IS IN A RECOVERY MODE.

- ____ 4.7 Ensure that the notifications in Attachment 1, Section 3 of 1004.1, 1004.2, 1004.3 and 1004.4 have been made.
- ____ 4.8 During the recovery effort, ensure that the exposure limits are controlled in accordance with the ALARA concept.
- ____ 4.9 As necessary, develop specific recovery plans to restore the plant to a safe operating mode.
- ____ 4.10 At a pre-designated time, transfer the responsibility for the overall recovery operation to the office of the President GPU-Nuclear. This includes overseeing the operations of the various functional groups, ensuring that all activities, proposed courses of action, and contingency plans receive proper analysis and coordination and selecting senior personnel to fill the key positions in the long-term recovery organization. The office of the President GPU-Nuclear shall implement the recovery operations by ensuring that the following personnel/groups are informed of their respective responsibilities:
 - ____ 4.10.1 The Vice President Communications - responsible for the overall guidance and direction of the public relations and communications program to ensure the rapid distribution of accurate information about the nuclear facilities to public officials, industry representatives, media, customers, employees, shareholders and regulatory agencies.

Initials

4.10.2 The Vice President Administration - responsible for providing the necessary administrative/logistic support such as communications, manpower, transportation, commissary, transient accommodations, clerical support, and temporary office space and equipment. He sets priorities; develops plans and schedules; coordinates and monitors the status of tasks; and reports the work progress of all the technical groups. In addition, he provides administration support and liaison with the Nuclear Regulatory Commission.

4.10.3 The Vice President Technical Functions - responsible for providing engineering support, technical planning and analysis, procedure support, control room technical support, data reduction and management, and support relating to licensing requirements. He is responsible for providing the engineering design to complete required modifications to plant systems, equipment and structures. He assists the Generating Station by providing chemistry and metallurgical analytical services and recommending chemistry requirements and specifications for recovery and plant lay-up activities.

4.10.4 The Vice President - Director TMI-1 - responsible for ensuring the safe and efficient clean-up of all radioactive waste and required decontamination of buildings for either return of the unit to full operation or

decommissioning of the unit as a nuclear generating station in accordance with corporate policies, all applicable laws, regulations, licenses and technical requirements.

Initials

_____ 4.10.5 The Vice President Nuclear Assurance - responsible for implementing the Quality Assurance Plan for all recovery activities important to safety. He is responsible for implementing all necessary general employee, technical and recovery management training programs. He provides ongoing development of the Emergency Plans and Implementing Documents and ensures that emergency preparedness is maintained to support potentially hazardous recovery activities. He monitors, evaluates and assures that all recovery activities having the potential for compromising nuclear safety are adequately addressed.

_____ 4.10.6 The Vice President Radiological and Environmental Controls - responsible for ensuring that optimal safeguards for environmental and radiation controls are designed, implemented and monitored to assure safe, reliable and efficient operations in accordance with corporate policies, all applicable laws, regulations, licenses and technical requirements.

Initials

_____ 4.10.7 The Vice President of Maintenance and Construction -
responsible for direction of activities associated with
major maintenance tasks and accomplishment of the field
work for major modifications. He also provides corporate
oversight for all plant maintenance activities.

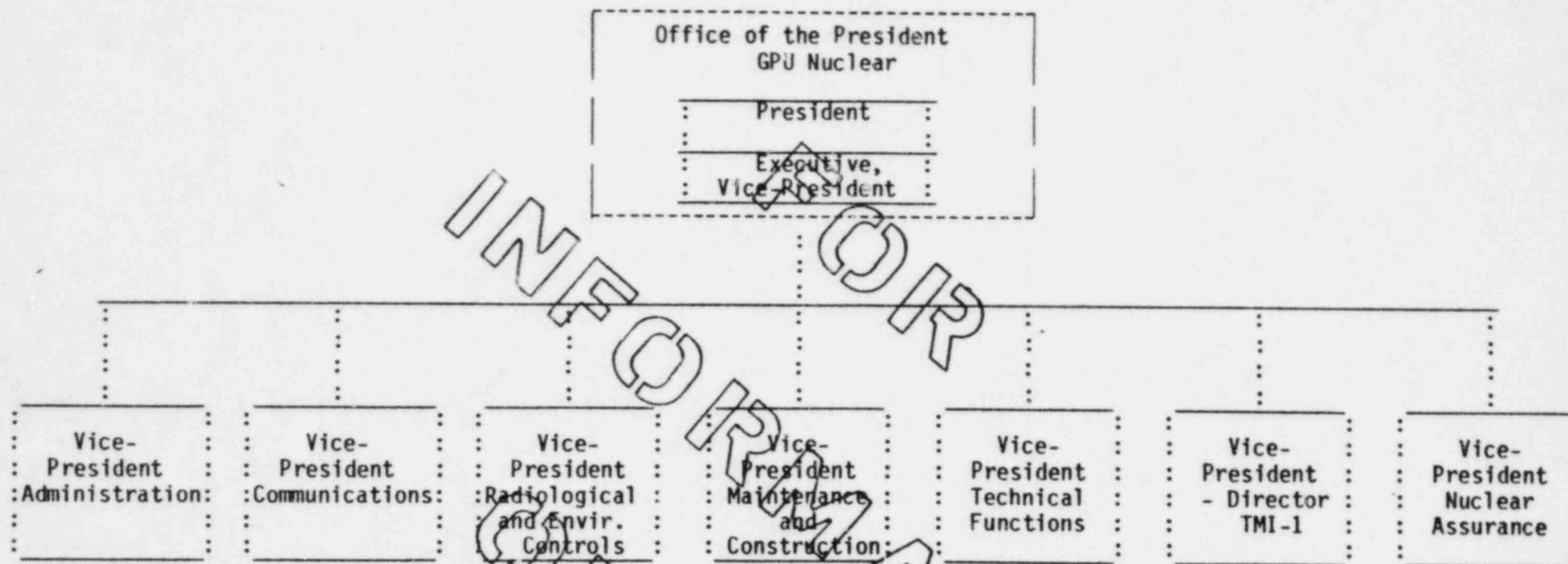
5.0 FINAL CONDITIONS

5.1 The plant is in a long-term recovery mode, or the emergency has
been de-escalated and being maintained at the fully manned level or
a reduced staffing level.

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ATTACHMENT 1

LONG-TERM RECOVERY ORGANIZATION



1004.1
Revision 9
08/22/83

IMPORTANT TO SAFETY
NON-ENVIRONMENTAL IMPACT RELATED

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

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

1.0 PURPOSE

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

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

The Emergency Director is responsible for implementing this procedure.

NOTE: The Emergency Director is vested with certain authority and responsibility that may not be delegated to a subordinate. Included are:

- A. Classification of an emergency event.
- B. Approving and directing official notifications to off-site agencies.
- C. Approving and directing information releases to the media.
- D. Approving and, if possible, personally conveying appropriate Protective Action Recommendations to the Bureau of Radiation Protection.
- E. Directing on-site evacuation at the Alert or lower level emergency classification based on potential hazard to non-essential personnel.
- F. Authorizing emergency workers to exceed 10 CFR 20 Radiation Exposure Limits.
- G. Approving and directing deviation from established operating procedures, emergency operating procedures, normal equipment operating limits or technical specifications during attempts to control the emergency. (NOTE: It is imperative that the Emergency Director consult to the fullest extent practicable with the Parsippany Technical Functions Center in arriving at a decision to deviate from prescribed procedures.)

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

2.0 ATTACHMENTS

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

3.0 EMERGENCY ACTION LEVELS

3.1 Radiological Controls and Containment Integrity

INITIATING CONDITION

INDICATION

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

INITIATING CONDITION

INDICATION

3.3 General Plant Status

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

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

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

3.4 Pressure, Temperature and Inventory Control

- 3.4.1 Exceeding primary system leak rate technical specification.

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

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

INITIATING CONDITION

INDICATION

- 3.4.2 Abnormal coolant temperature and/or pressure. Operation with subcooling less than 30° or greater than 100° and substained.
- 3.4.3 Failure of a safety or relief valve in a safety related system to close following reduction of applicable pressure. Failure of the following to close:
a. Pressurizer Safety Valve(s), Power Operated Relief Valve(s) or OTSG safety valve(s) as indicated by the acoustical valve monitoring or flow measuring equipment.*
b. OTSG Atmospheric Relief Valve(s) or Decay Heat System relief valve.
- 3.4.4 A reactor trip caused by either:
a. Any reactor coolant pump failure.
b. Total loss of ability to feed OTSG. As indicated by reactor trip caused by a validated low-flow trip or by a total loss of feedwater.
- 3.4.5 Reactor trip followed by an unplanned automatic ECCS initiation. Reactor trip alarm (F-1-1) followed by HP Injection Flow alarm (F-1-6).
- 3.5 Electrical Power
- 3.5.1 A sustained loss of offsite power resulting in a reactor trip. As indicated by a reactor trip caused by loss of power.
- 3.5.2 A loss of On-site AC power capability resulting in a technical specification shutdown. As indicated by a loss of the ability to meet any of the conditions of Technical Specification Limiting Condition for Operation 3.7.2.
- 3.6 Instrumentation and Actuation Systems
- 3.6.1 Indications or alarms on process or effluent parameters not functional in control room to an extent requiring plant shutdown or other significant loss of primary and backup assessment or communication capability. As indicated by a loss of indications, assessment or communications capability requiring plant shutdown by Technical Specification or as determined by the Shift Supervisor when assessment or off-site notification capabilities are hampered.

INITIATING CONDITION

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

3.7 Natural or Man-made Phenomena

3.7.1 Natural phenomenon being experienced or projected beyond usual levels.

3.7.2 Other hazards being experienced or projected.

INDICATION

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

As indicated by any one of the following:

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

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

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

INITIATING CONDITION

INDICATION

3.7.3 Fire in a permanent plant structure which cannot be controlled by the fire brigade within 10 minutes of discovery.

Shift Supervisors judgement, based on advice of the fire brigade leader.

3.7.4 Fire outside plant structures requiring offsite firefighting assistance to put the fire under control.

Shift Supervisors judgement, based on request of the fire brigade leader for offsite firefighting assistance.

3.8 Reactivity Control

3.8.1 One Control Rod Stuck-Out, Stuck-In or Dropped, requiring shutdown by Technical Specifications.

As indicated by a loss of the ability to meet any of the conditions of Technical Specifications Limiting Conditions of Operation 3.5.2.2 for one control rod.

3.8.2 Unanticipated positive reactivity insertion potentially degrading the level of safety of the plant.

As determined by the Shift Supervisor or as indicated by any one of the following:

- a. An uncompensated operating reactivity change resulting in a valid high reactor coolant outlet temperature alarm.
- b. An unanticipated criticality.
- c. An inadvertent rod withdrawal at power operations resulting in a reactor trip.
- d. An inadvertent moderator dilution resulting in a valid high reactor coolant outlet temperature alarm and/or a Reactor trip.

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

4.0 EMERGENCY ACTIONS

Initials

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

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

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

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

: NOTE: Turn on Whelen siren switch. :

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

: NOTE: Turn off Whelen siren switch. :

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

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

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

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

- ____ 4.17 If applicable, direct the operations Coordinator to dispatch Emergency Repair/Operations personnel to investigate the identified problem area(s) in accordance with Emergency Repair/Operations procedure 1004.21.
- ____ 4.18 After 30 minutes from initial contact with PEMA, confirm that BRP verification has been made. If no verification, instruct the Communicator to proceed to Attachment I, Section 1.2.(d).
- ____ 4.19 If person(s) are injured or ill and are in a radiologically controlled area or are potentially contaminated, or if person(s) have received radiation exposure greater than 25 REM; direct the RAC to implement Emergency Plan Implementing Procedure 1004.16, Contaminated Injuries/Radiation Over-Exposure.
- ____ 4.20 If personnel have been exposed to I^{131} sufficient to cause a thyroid dose of greater than or equal to 25 RAD, direct the RAC to implement the Thyroid Blocking procedure Emergency Plan Implementing Procedure 1004.35.
- ____ 4.21 Based upon assessment of plant conditions, either close out the Unusual Event or escalate to a higher class of emergency.
- ____ a. If Recovery Phase criteria have been met (see Recovery Procedure 1004.24), but long term recovery operations are not necessary, close out the Unusual Event by directing the Communicator to perform the notifications in Attachment I, Section II.
- ____ b. If emergency action levels exceed those for an Unusual Event, escalate to a higher class, notify BRP on Radiological Line and make remaining notifi-

cations in accordance with the appropriate emergency procedure as specified in Step 5.7.

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

5.0 FINAL CONDITIONS

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

Date

Signature of Person Responsible for
Implementing Procedure

ATTACHMENT I SECTION I

INITIAL CONTACT

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

1. DAUPHIN COUNTY EMERGENCY OPERATION CENTER

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

a. Telephone: 9-911 or 9-236-7978

b. Message:

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

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

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

1. We have not had a radioactive release

OR

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

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

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

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

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

2. PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA)

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

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

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

ATTACHMENT I SECTION I

INITIAL CONTACT

b. Message:

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

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

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

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

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

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

ATTACHMENT I SECTION I

INITIAL CONTACT

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

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

3. UNAFFECTED CONTROL ROOM

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

4. INSTITUTE OF NUCLEAR POWER OPERATIONS

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

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

b. MESSAGE:

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

Nuclear Station Unit 1 calling. We have declared an

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

description of the emergency.)

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

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

Notification to be performed per procedure 1004.16.

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

b. Pennsylvania State Police 9-234-4051

MESSAGE:

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

c. Radiation Management Corporation

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

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

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

MESSAGE:

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

ATTACHMENT I SECTION I

INITIAL CONTACT

INITIAL

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

the following assistance: (State any assistance
required.)

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

MESSAGE

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

Nuclear Station Unit 1 calling. We have declared an

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

description of the emergency).

- ____ 6. NUCLEAR REGULATORY COMMISSION OFFICE Bethesda, MD.

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

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

ATTACHMENT I SECTION I

INITIAL CONTACT

b. MESSAGE:

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

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

1. We have not had a radioactive release, OR
2. We have had a radioactive release, but do not expect this situation to result in detectable changes in offsite radiation levels, OR
3. We have had a radioactive release, but do not know if there will be detectable changes in offsite radiation levels. We will be keeping the Bureau of Radiation Protection informed of the results of our investigation, OR
4. We have had a radioactive release and expect to be able to detect changes in offsite radiation levels but they will be less than the levels calling for an Alert. We expect these levels to be less than 10 mRem/hr (gamma) and less than 50 mREM/hour child thyroid dose commitment. We will be keeping the Bureau of Radiation Protection informed.

ATTACHMENT I SECTION I

INITIAL CONTACT

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

DATE _____ TIME OF COMPLETION _____ COMPLETED BY _____

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

FOR INFORMATION ONLY

ATTACHMENT I

SECTION II

NOTIFICATION CHECKLIST

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

* Optional

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIAL

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

1. Announce or have announced the following message over the plant page after turning on whelen sirens "ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. The Unusual Event has been terminated. (Give a brief description of the work restrictions, if any)". Repeat message and turn off whelen sirens.
2. Bureau of Radiation Protection
 - a. Telephone: Radiological Line or 9-787-3720
 - b. MESSAGE:

This is _____ at the Three Mile Island Nuclear
(name/title)
Station Unit 1. We have closed out the Unusual Event
at _____ hours.
(time)
Please notify PEMA, Dauphin, Lancaster, York, Lebanon and
Cumberland counties.
3. Unaffected Control Room
 - a. Telephone: 8066, 8067, 8068
 - b. MESSAGE:

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

ATTACHMENT I SECTION III

SECONDARY CONTACT

INITIAL

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

DATE _____ TIME _____ COMPLETED BY _____

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION I

1. Description of Emergency: _____

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

ATTACHMENT II

SECTION I

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

What are the approximate radiation and/or contamination levels

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

mR/hr

DPM/100 gm²

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

If so, list below:

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

Date _____ Time 11:15 Completed By W. J. [Signature]

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION II

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

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

ATTACHMENT II
EMERGENCY STATUS REPORT

SECTION II

b. If the release is still in progress:

Start time _____

Estimated duration _____ (hrs / min / sec)

Date Time Completed Completed By

FOR
INFORMATION
ONLY

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

A. Identification:

Date _____ Time _____ Name of Person Making Report _____

Licensee _____ Facility Affected _____

Applicable Part of 10 CFR 50.72 _____

B. Description:

Date of Event _____ Time _____

Description of What Happened _____

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

Injuries _____ Fatalities _____

Contamination (personnel) _____ (property) _____

Overexposures (known/possible) _____

Safety Hazard (describe - actual/potential) _____

Offsite Radiation Levels _____

Integrated Dose _____ Location _____

Meteorology (wind speed) _____ From (direction) _____

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

Equipment/Property Damage _____

D. Cause of Event: _____

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

E. Licensee Actions:

Taken _____

Planned _____

Emergency Plan Activated (Yes/No) _____ Classification of Emergency _____

Resident Inspector Notified (Yes/No) _____ State Notified (Yes/No) _____

Press Release Planned (Yes/No) _____ News Media Interest (Yes/No) _____

Local/National _____

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

1. Reactor Systems Status _____

Power Level Before Event _____ After Event _____

Pressure _____ Temp. (t_{hot}) _____ (t_{cold}) _____

RCS Flow (Yes/No) _____ Pumps On (Yes/No) _____

Heat Sink: Condenser _____ Steam Atm. Dump _____

Other _____ Sample Taken (Yes/No) _____ Activity Level _____

ECCS Operating (Yes/No) _____ ECCS Operable (Yes/No) _____

ESF Actuation (Yes/No) _____

PZR or RX Level _____ Possible Fuel Damage (Yes/No) _____

S/G Levels _____ Feedwater Source/Flow _____

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

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

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

Containment Water Level Indication _____

Equipment Failures _____

Normal Offsite Power Available (Yes/No) _____

Major Busses/Loads Lost _____

Safeguards Busses Power Source _____

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

2. Radioactivity Release _____

Liquid/Gas _____ Location/Source _____

Release Rate _____ Duration _____

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

Amount of Release _____ Tech Spec. Limits _____

Radiation Levels in Plant _____ Areas Evacuated _____

3. Security/Safeguards ² _____

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

Site Evacuated (Yes/No) _____

Intrusion: Insider _____ Outsider _____

Point of Intrusion _____ Extend of Intrusion _____

Apparent Purpose _____

Strike/Demonstrations: Size of Group _____

Purpose _____

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

ATTACHMENT III

CHECKLIST FOR NOTIFICATION OF SIGNIFICANT EVENTS

MADE IN ACCORDANCE WITH 10 CFR 50.72

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

Equipment/Property _____

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

Location of Letter _____

Demands _____

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

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

Stolen/Missing Material _____

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

Media Interest (present, anticipated) _____