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A045

CLASSIFICATION OF EMERGENCIES

Revision Summary

1) Clarified the indications of Unisolable Primary System Leakage outside Drywell to be less limiting (Enclosure A, Tab F and Enclosure B, Tab F).
2) Added commitment in Enclosure A, Tab F.
3) Clarified title of Primary Containment Barrier Loss EAL #2 by removing "valve" and "after containment isolation" to reflect that the intent is containment integrity regardless of whether a containment isolation signal is present (Enclosure A, Tab F and Enclosure B, Tab F).
4) Clarified the indications of potential loss of primary containment based on RPV water level (Enclosure A, Tab F and Enclosure B, Tab F).
5) Added note to HA2 identifying the start of the 15 minute time period as being when the Control Room alarm was received (Enclosure A, Tab H).
6) On HG1, replaced EAL #1 and EAL #2 with a new EAL #1 (Enclosure A, Tab H).
7) Clarified SG1 EAL to more accurately reflect intent by adding similar wording as the Site Area Emergency in the escalation scheme that required the loss of all AC to last at least 15 minutes (Enclosure A, Tab S).
8) Changed Enclosure B to Visio (previously a Word document).

Implementation Plan

1) This revision goes into effect upon issuance.

Attachments - None

Enclosures

A Emergency Action Levels

121101	Tab A	Recognition Category A - Abnormal Rad Levels/Radiological Effluent
011503	Tab F	Recognition Category F - Fission Product Barrier Degradation
011503	Tab H	Recognition Category H - Hazards and Other Conditions Affecting Plant Safety
011503	Tab S	Recognition Category S - System Malfunctions

B Initiating Condition Matrix

011503	Tab A	Abnormal Rad Levels/Radiological Effluent
011503	Tab F	Fission Product Barrier Degradation
011503	Tab H	Hazards and other Conditions Affecting Plant Safety
011503	Tab S	System Malfunction

Information and Procedures				
DSN EP-101	**Revision** 28	**DCR #** 02-1920	**DTC** TPEPT	**File #** 1703.10
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1.0 PURPOSE

To provide a guide for identifying initiating conditions for proper classification of emergencies.

2.0 USE REFERENCES

2.1 29.100.01, Sheet 1, RPV Control

29.100.01, Sheet 1A, RPV Control - ATWS

2.2 29.100.01, Sheet 2, Primary Containment Control

2.3 29.100.01, Sheet 3, Emergency Depressurization, Steam Cooling, RPV and PC Flooding

29.100.01, Sheet 3A, Emergency Depressurization, Steam Cooling, RPV and PC Flooding - ATWS

2.4 29.100.01, Sheet 4, Primary Containment H_2/O_2 Control

2.5 29.100.01, Sheet 5, Secondary Containment and Rad Release

2.6 29.100.01, Sheet 6, Curves, Cautions, and Tables

3.0 ENTRY CONDITIONS

3.1 Conditions exist that require use of Abnormal Operating Procedures, Emergency Operating Procedures, or entry into a Technical Specification Limiting Condition for Operation.

and

3.2 Conditions exist that may require classification in accordance with the emergency action levels in Enclosure A.

4.0 GENERAL INFORMATION

4.1 Detailed emergency action levels are listed for each initiating condition under each category of events in Enclosure A. Categories and conditions are summarized in a matrix format in Enclosure B.

4.2 The following is a list of event categories by tab in Enclosure A

4.2.1	Tab A	Abnormal Rad Levels/Radiological Effluent
4.2.2	Tab F	Fission Product Barrier Degradation
4.2.3	Tab H	Hazards and Other Conditions Affecting Plant Safety
4.2.4	Tab S	System Malfunctions

4.3 Control Room Chain of Command

4.3.1 The **Shift Manager** shall:

1. Perform initial evaluation of any abnormal or emergency situation.
2. Ensure the appropriate actions of applicable Abnormal and Emergency Operating Procedures are performed.
3. Ensure a determination is made of:
   a. Magnitude of the emergency conditions
   b. Whether or not a potential hazard exists to the health and safety of site personnel or the general public
4. Classify the emergency condition using the initiating conditions and emergency action levels of Enclosure A.
5. Assume the position of Emergency Director until properly relieved or until the emergency is terminated.
6. Continue to evaluate the emergency condition and make classification recommendations to the Emergency Director in the Technical Support Center (TSC) when the TSC is functional.

4.3.2 The **Control Room Supervisor** shall assume the responsibilities of the Shift Manager if the he/she is absent or incapacitated.

4.4 The **Emergency Director (Plant Manager/alternate)** shall:

4.4.1 Evaluate and assess the emergency condition.

4.4.2 Perform the following actions:

1. Classify/reclassify the emergency.

2. Authorize emergency response personnel to exceed radiation exposure limits delineated in 10 CFR 20, if required.

3. Augment the Emergency Response Organization as appropriate for the severity of the emergency

4. Recommend protective actions to offsite authorities when appropriate

4.5 **Emergency Class Definitions**

4.5.1 Unusual Event - Events are in process or have occurred that indicate a potential degradation of the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring is expected.

4.5.2 Alert - Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protection Action Guidelines exposure levels.

4.5.3 Site Area Emergency - Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed Environmental Protection Agency (EPA) Protection Action Guidelines exposure levels except at or near the site boundary.

4.5.4 General Emergency - Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed Environmental Protection Agency (EPA) Protection Action Guidelines exposure levels offsite for more than the immediate site area.

5.0 IMMEDIATE ACTIONS - None

6.0 PROCEDURE

6.1 The **Emergency Director** shall:

6.1.1 Verify initial emergency indications (such as an alarm or surveillance report) by such means as:

1. Comparison with redundant instrument channels
2. Comparison with other related plant parameters
3. Physical observations
4. Field measurements

6.1.2 Determine appropriate emergency classification by comparing verified plant conditions with the initiating conditions identified in Enclosure A or B, and the emergency action levels in Enclosure A.

6.1.3 Take actions in accordance with:

1. EP-102, "Unusual Event"
2. EP-103, "Alert"
3. EP-104, "Site Are Emergency"
4. EP-105, "General Emergency"

7.0 FOLLOW-UP ACTIONS

7.1 Continually assess the emergency situation. As necessary, upgrade, de-escalate, or terminate the emergency classification as more definitive information becomes available, and/or if plant conditions change.

7.1.1 Eliminating one or more of the conditions constituting an event classification does not necessarily ensure the event can be de-escalated or terminated.

7.1.2 Use EP-102, EP-103, EP-104, and EP-105 for criteria on de-escalation and termination of the emergency.

7.2 Continue to perform this procedure until event is terminated.

8.0 RECORDS

There are no required records generated through the performance of this procedure.

END OF TEXT

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

UNUSUAL EVENT

AU1 Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds Two Times the Values of ODCM Control 3.11.2.1 or 3.11.1.1 for 60 Minutes or Longer

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Note: If a valid monitor reading indicates a release of radioactivity that may be in excess of 2 times the ODCM Control value for greater than 60 minutes, and it is not confirmed by sample analysis within that time, then the declaration must be based on the valid monitor reading. Confirmatory sample and analysis in response to reaching AU1 monitor EAL value is done for the purpose of both confirming the existence of the uncontrolled condition (AU1/AA1) and also to verify that there is no radiological hazard (AS1/AG1).

   A valid monitor reading from the table below which exceeds the corresponding value may indicate a release in excess of 2 times the ODCM Control 3.11.2.1 or 3.11.1.1 value, and warrants immediate confirmation by sampling and analysis in accordance with ODCM methodology or by performing dose assessment using nuclide analysis method.

Effluent Monitor	Channel	Reading
RB SPING	5	4.6E-3 μCi/cc
SGTS I SPING	7	5.3E-2 μCi/cc
SGTS II SPING	7	4.6E-2 μCi/cc
RW SPING	5	4.9E-3 μCi/cc
TB SPING	5	3.3E-4 μCi/cc
CW Decant	N/A	2600 cpm

2. Valid projection of Actual Dose indicates a dose rate in excess of 0.1 mRem/hr TEDE at the site boundary using computerized dose assessment by nuclide analysis method, with the condition sustained for a duration of 60 minutes or greater

3. Valid sample analysis of gaseous or liquid effluent release using ODCM methodology indicates a release rate or concentration in excess of 2 times the ODCM Control 3.11.2.1 or 3.11.1.1 value, with the condition sustained for a duration of 60 minutes or greater

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

ALERT

AA1 Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds 200 Times the Values of ODCM Control 3.11.2.1 or 3.11.1.1 for 15 Minutes or Longer

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. **Note:** If a valid monitor reading indicates a release of radioactivity that may be in excess of 200 times the ODCM Control value for greater than 15 minutes, and it is not confirmed by **sample analysis** within that time, then the declaration must be based on the valid monitor reading. Confirmatory sample and analysis in response to reaching AA1 monitor EAL value is done for the purpose of both confirming the existence of the **uncontrolled condition** (AU1/AA1) and also to verify that there is no **radiological hazard** (AS1/AG1).

   A valid monitor reading from the table below which exceeds the corresponding value may indicate a release in excess of 200 times the ODCM Control 3.11.2.1 or 3.11.1.1 value, and warrants immediate confirmation by sampling and analysis in accordance with ODCM methodology or by performing dose assessment using nuclide analysis method.

Effluent Monitor	Channel	Reading
Div I AXM	4	5.3 μCi/cc
Div II AXM	4	4.6 μCi/cc
CW Decant	N/A	2.6E5 cpm

2. Valid projection of Actual Dose indicates a dose rate in excess of 10 mRem/hr TEDE at the site boundary using computerized dose assessment by nuclide analysis method, with the condition sustained for a duration of 15 minutes or greater

3. Valid sample analysis of gaseous or liquid effluent release using ODCM methodology indicates a release rate or concentration in excess of 200 times the ODCM Control 3.11.2.1 or 3.11.1.1 value, with the condition sustained for a duration of 15 minutes or greater

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

SITE AREA EMERGENCY

AS1 Site Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 100 mrem TEDE or 500 mrem Adult Thyroid for the Actual or Projected Duration of the Release

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. **Note:** If a valid monitor reading indicates a release of radioactivity that may result in a Site Boundary Doses in excess of 100 mrem TEDE or 500 mrem Adult Thyroid for greater than 15 minutes, and it is not confirmed by sample analysis or dose projection within that time, then the declaration must be based on the valid monitor reading.

   A valid monitor reading of greater than 80 μCi/cc on SGTS DIV I/II AXM, Channel 3, may indicate a release resulting in Site Boundary Dose Rates in excess of 100 mrem/hr TEDE or 500 mrem/hr Adult Thyroid, and warrants immediate confirmation by sampling and analysis in accordance with ODCM methodology or by performing dose assessment.

2. Valid projection of Actual **or** Potential Dose indicates a dose in excess of 100 mrem TEDE or 500 mrem Adult Thyroid at the Site Boundary for the projected duration of the release

3. Site Boundary Dose Rate measurements in excess of 100 mrem/hr expected to continue for more than one hour; **or** a sample analysis indicating a combined radioiodine concentration in excess of 20 DAC expected to continue for more than one hour

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

GENERAL EMERGENCY

AG1 Site Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 1000 mrem TEDE or 5000 mrem Adult Thyroid for the Actual or Projected Duration of the Release Using Actual Meteorology

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. **Note:** If a valid monitor reading indicates a release of radioactivity that may result in Site Boundary Doses in excess of 1000 mrem TEDE or 5000 mrem Adult Thyroid for greater than 15 minutes, and it is not confirmed by dose projection within that time, then the declaration must be based on the valid monitor reading.

   A valid monitor reading of greater than 800 μCi/cc on SGTS DIV I/II AXM, Channel 3, may indicate a release resulting in Site Boundary Dose Rates in excess of 1000 mRem/hr TEDE or 5000 mRem/hr Adult Thyroid, and warrants immediate confirmation by sampling and analysis in accordance with ODCM methodology or by performing dose assessment.

2. Valid projection of Actual **or** Potential Dose indicates a dose in excess of 1000 mrem TEDE or 5000 mrem Adult Thyroid for the projected duration of the release

3. Site Boundary Dose Rate measurements in excess of 1000 mrem/hr expected to continue for more than one hour; **or** a sample analysis indicating a combined radioiodine concentration in excess of 200 DAC expected to continue for more than one hour

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

UNUSUAL EVENT

AU2 Unexpected Increase of Plant Radiation Levels

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. **Uncontrolled** water level decrease in the reactor refueling cavity with level at 619 inches and lowering by Floodup Level Indicator **or** 20 feet and lowering by visual indication, with all irradiated fuel assemblies remaining covered by water

2. **Uncontrolled** water level decrease in the spent fuel storage pool with level at 21.5 feet and lowering by visual indication, with all irradiated fuel assemblies remaining covered by water

3. Valid direct Area Radiation Monitor readings which exceed the Maximum Normal Operating Level of 29.100.01, Sheet 5, Table 14, inside secondary containment, **or** which have increased by a factor of 1000 over normal* levels in other areas of the plant

* Normal levels can be considered as the highest reading in the past twenty-four hours excluding the current peak value

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

ALERT

AA2 Major Damage to Irradiated Fuel or Loss of Water Level That Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. An unplanned valid alarm of ARM Channel 18, Refuel Area High Radiation Monitor, reading ≥1000 mR/hr

2. An unplanned valid alarm of ARM Channels 15 and 17, Fuel Storage Pool and Refuel Area Low Range Radiation Monitors, **and** a valid trip of the Fuel Pool Area Ventilation Exhaust Radiation Monitor indicated by Annunciator 3D35, DIV I/II FP VENT EXH RADN MONITOR UPSCALE TRIP

3. Report of visual indication of irradiated fuel uncovered

4. Spent Fuel Pool Water Level below the bottom of the Spent Fuel Pool Gates and lowering indicating a loss of inventory which will result in uncovering irradiated fuel

ABNORMAL RAD LEVELS/RADIOLOGICAL EFFLUENT

ALERT

AA3 Releases of Radioactive Material or Increases in Radiation Levels Within the Facility That Impede Operation of Systems Required to Maintain Safe Operations or to Establish or Maintain Cold Shutdown

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Valid reading on ARM Channel 6, Control Room Direct Area Radiation Monitor, GREATER THAN 15 mR/hr

2. Valid, unplanned, direct Area Radiation Monitor readings which exceed the Maximum Safe Operating Level of 29.100.01, Sheet 5, Table 14

FISSION PRODUCT BARRIER DEGRADATION

OPERATING MODE APPLICABILITY: 1, 2, 3

UNUSUAL EVENT

FU1 Any Loss **or** Any Potential Loss of Primary Containment

ALERT

FA1 Any Loss **or** Any Potential Loss of Either Fuel Clad **or** Reactor Coolant System

SITE AREA EMERGENCY

FS1 Loss **or** Potential Loss of Any Two Barriers

GENERAL EMERGENCY

FG1 Loss of Any Two Barriers **and** Potential Loss of Third Barrier

FUEL CLAD BARRIER EALS

LOSS

1. **RPV Water Level**

   RPV Water Level less than -40 inches

2. **Containment Radiation**

   CHRRM reading greater than 2,500 R/hr

3. **Primary Coolant Activity Level**

CM

RACTS 20090	*Develop and maintain a capability for classifying fuel damage events at the Alert level threshold.*

Primary coolant activity level greater than 300 μCi/gm DE I-131 (see SU4 also)

4. **Determination of release of at Least 5% of the Gap Activity from the Fuel**

5. **Emergency Director Judgment**

   Any condition in the judgment of the Emergency Director that indicates Loss of the Fuel Clad Barrier

POTENTIAL LOSS

1. **RPV Water Level**

   RPV Water Level less than 0 inches

5. **Emergency Director Judgment**

   Any condition in the judgment of the Emergency Director that indicates a Potential Loss of the Fuel Clad Barrier

REACTOR COOLANT BARRIER EALS

LOSS

1. **RPV Water Level**

   RPV Water Level less than
   0 inches

3. **Drywell Pressure**

   Drywell pressure greater than 1.68 psig

4. **Containment Radiation**

   CHRRM reading greater than 5 R/hr two minutes after reactor shutdown or beyond

5. **Emergency Director Judgment**

   Any condition in the judgment of the Emergency Director that indicates Loss of the Reactor Coolant Barrier

POTENTIAL LOSS

2. **Reactor Coolant Leak Rate***

   Reactor Coolant unidentified leakage greater than 50 gpm inside the Drywell,
   or
   Unisolable Primary System leakage outside Drywell (as may be indicated by isolation mimic, **or** exceeding a maximum safe operating Secondary Containment temperature or radiation level of 29.100.01, Sheet 5, Table 12 **or** 14) (see SU5 and SA6 also)

5. **Emergency Director Judgment**

   Any condition in the judgment of the Emergency Director that indicates a Potential Loss of the Reactor Coolant Barrier

* Stuck open SRV is not a Reactor Coolant Barrier loss or potential loss unless there is a concurrent loss of the Fuel Clad Barrier, in which case the stuck open SRV constitutes a potential loss of the Reactor Coolant Barrier (FS1 applies).

PRIMARY CONTAINMENT BARRIER EALS

LOSS	POTENTIAL LOSS*
	1. **RPV Water Level** RPV Water Level cannot be restored and maintained above -40 inches **or** unknown
2. **Containment Isolation Status** Failure of both valves in any one line to close **and** downstream pathway to the environment exists, **or** Containment venting requiring trip defeat per EOPs, **or** Unisolable Primary System leakage outside Drywell (as may be indicated by isolation mimic, **or** exceeding a maximum safe operating Secondary Containment temperature or radiation level of 29.100.01, Sheet 5, Table 12 **or** 14) (see SA6 also)	
3. **Drywell Pressure** Rapid unexplained decrease following initial increase, **or** Drywell Pressure response not consistent with LOCA conditions	3. **Containment Pressure or Gas Mix** Torus Pressure cannot be maintained below the Primary Containment Pressure Limit, **or** Drywell or Torus Hydrogen concentration $\geq$ 6% **and** Drywell or Torus Oxygen concentration > 5% 4. **Containment Radiation** CHRRM reading greater than 10,000R/hr 5. **Determination of release of at least 20% Gap activity from the fuel**
6. **Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates Loss of the Containment Barrier	6. **Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates a Potential Loss of the Containment Barrier

* Primary Containment Barrier Potential Loss EALs 1 – 5 are indicative of conditions warranting a General Emergency declaration.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

UNUSUAL EVENT

HU1 Natural and Destructive Phenomena Affecting the Protected Area

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Seismic monitor indicates earthquake greater than 0.01g
2. Report by plant personnel of tornado striking within protected area boundary
3. Vehicle crash into plant structures or systems within protected area boundary
4. Report by plant personnel of an unanticipated explosion within protected area boundary resulting in visible damage to permanent structure or equipment
5. Report of turbine failure resulting in casing penetration or damage to turbine or generator seals
6. Sustained winds greater than 75 mph as measured at the 10 m or 60 m elevations on the meteorological tower
7. External flooding indicated by wave crests exceeding the top of the shore barrier
8. Internal flooding in the Auxiliary Building, Reactor Building, or RHR Complex that has the potential to affect the operation of safe shutdown equipment
9. Assessment by the Control Room that a destructive event affecting the protected area has occurred

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA1 Natural and Destructive Phenomena Affecting the Plant Vital Area

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Seismic monitor indicates seismic event greater than 0.08 g

2. Report by plant personnel of tornado striking Reactor Building, Auxiliary Building, or RHR Complex

3. Any occurrence that results in visible damage to the Reactor Building, Auxiliary Building, or RHR Complex

4. Control Room indications which in the judgment of Control Room personnel reflect damage to the Reactor Building, Auxiliary Building, or RHR Complex

5. Vehicle crash affecting the Reactor Building, Auxiliary Building, or RHR Complex

6. Turbine failure generated missiles result in any visible structural damage to or penetration of the Reactor Building, Auxiliary Building, or RHR Complex

7. Sustained winds greater than 90 mph as measured at the 10 m or 60 m elevations on the meteorological tower

8. Flooding from internal or external sources that has affected the operation of safe shutdown equipment in the Reactor Building, Auxiliary Building, or RHR Complex

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

UNUSUAL EVENT

HU2 Fire Within Protected Area Boundary Not Extinguished Within 15 Minutes of Detection

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Fire in the Auxiliary Building, Reactor Building, Control Center, Turbine Building, Radwaste Building, or RHR Complex not extinguished within 15 minutes of Control Room notification or verification of a control room alarm

NOTE: If a Control Room Fire Alarm is verified, the 15 minute period starts at the time that the Control Room Fire Alarm was received.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA2 Fire or Explosion Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Fire not extinguished within 15 minutes of Control Room notification or verification of a Control Room alarm **or** explosion in any of the following areas:

   - Reactor Building
   - Auxiliary Building
   - Control Center
   - RHR Complex

   and

   Affected system parameter indications show degraded performance or plant personnel report visible damage to permanent structures or equipment within the specified area

   NOTE: If a Control Room Fire Alarm is verified, the 15 minute period starts at the time that the Control Room Fire Alarm was received.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

UNUSUAL EVENT

HU3 Release of Toxic or Flammable Gases Deemed Detrimental to Safe Operation of the Plant

OPERATING MODE APPLICABILITY: All

NOTE (1): Potential sources of offsite toxic releases include, but are not limited to:

1. Berlin Water Treatment Plant
   1.5 miles North Northwest (Sector R, 330°)
   600 pounds of chlorine gas

2. Meijer Distribution Center
   3.8 miles Northwest (Sector Q, 315°)
   22,000 pounds of anhydrous ammonia

NOTE (2): Fire suppression gases are not considered toxic for the purpose of this EAL.

NOTE (3): The HAZWOPER Plan may be used for additional reference.

Emergency Action Levels:

1. Report or detection of toxic or flammable gases that could enter within the site area boundary in amounts that can affect normal operation of the plant

2. Report by Local, County or State Officials for potential evacuation of site personnel based on offsite event

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA3 Release of Toxic or Flammable Gases Within a Facility Structure Which Jeopardizes Operation of Systems Required to Maintain Safe Operations or to Establish or Maintain Cold Shutdown

OPERATING MODE APPLICABILITY: All

NOTE (1): Fire suppression gases are not considered toxic for the purpose of this EAL.

NOTE (2): The HAZWOPER Plan may be used for additional reference.

Emergency Action Levels:

1. Report or detection of toxic gases within a facility structure in concentrations that will be life threatening to plant personnel

2. Report or detection of flammable gases within a facility structure in concentrations that will affect the safe operation of the plant

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

UNUSUAL EVENT

HU4 Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Attempted unauthorized entry into the protected area

2. Attempted sabotage within the protected area

3. Internal disturbance within the protected area not brought under immediate control or presenting an unknown threat

4. A confirmed credible site-specific security threat notification

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA4 Security Event in a Plant Protected Area

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Explosive device discovered within the plant protected area but outside the plant vital areas

2. Intrusion into plant protected area by a hostile force

3. Confirmed act of sabotage within the plant protected area

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

SITE AREA EMERGENCY

HS1 Security Event in a Plant Vital Area

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Explosive device discovered in a plant vital area
2. Intrusion into a plant vital area by a hostile force
3. Confirmed act of sabotage within a plant vital area

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

GENERAL EMERGENCY

HG1 Security Event Resulting in Loss of Physical Control of Facility

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. A hostile force has taken control of plant equipment such that plant personnel are unable to operate equipment required to maintain safety functions (shutdown reactor, maintain core cooling, remove decay heat).

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA5 Control Room Evacuation has been Initiated

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Evacuation of the Control Room ordered by the Shift Manager (SM).

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

SITE AREA EMERGENCY

HS2 Control Room Evacuation has been Initiated and Plant Control Cannot be Established

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Control Room evacuation has been initiated

and

Control of RPV level and pressure cannot be established per 20.000.18 or 20.000.19 within 15 minutes

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

UNUSUAL EVENT

HU5 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of an Unusual Event

OPERATING MODE APPLICABILITY: All

Example Emergency Action Level:

1. Other conditions exist which in the judgment of the Emergency Director indicate a potential degradation of the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring is expected.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

ALERT

HA6 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of an Alert

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Other conditions exist which in the judgment of the Emergency Director indicate that an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines (PAG) exposure levels.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

SITE AREA EMERGENCY

HS3 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of a Site Area Emergency

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Other conditions exist which in the judgment of the Emergency Director indicate actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed EPA Protective Action Guidelines (PAG) exposure levels except near the site boundary.

HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY

GENERAL EMERGENCY

HG2 Other Conditions Existing Which in the Judgment of the Emergency Director Warrant Declaration of General Emergency

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Other conditions exist which in the judgment of the Emergency Director indicate: actual or imminent substantial core degradation or melting with potential for loss of containment, **or** potential for uncontrolled radionuclide releases which can reasonably be expected to exceed EPA PAG plume exposure levels outside the site boundary

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU1 Loss of All Offsite Power to Essential Busses for Greater Than 15 Minutes

OPERATING MODE APPLICABILITY: All

Emergency Action Level:

1. Loss of power to System Service Transformers 64 and 65 for greater than 15 minutes

and

Emergency Diesel Generators are supplying power to all Div. 1 and Div. 2 emergency busses

SYSTEM MALFUNCTIONS

ALERT

SA1 Loss of all Offsite Power and Loss of all Onsite AC Power to Essential Busses During Cold Shutdown or Refueling Mode

OPERATING MODE APPLICABILITY: 4, 5, defueled

Emergency Action Level:

1. The following conditions exist for the **required** AC Power Distribution Source:

   a. Loss of power to System Service Transformers 64 or 65

   and

   b. Failure of Emergency Diesel Generators to supply power to the required division of emergency busses

   and

   c. Failure to restore power to at least one required division of busses within 15 minutes from the time of loss of both offsite and onsite AC power sources

SYSTEM MALFUNCTIONS

ALERT

SA5 AC Power Capability to Essential Busses Reduced to a Single Power Source for Greater Than 15 Minutes Such That Any Additional Single Failure Would Result in Station Blackout

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Levels:

1. Loss of Power to System Service 64 and 65 transformers for greater than 15 minutes

   and

   Onsite ESF power capability has been degraded to one full division of emergency busses

2. Loss of ability to power Div. 1 and Div. 2 emergency busses from Emergency Diesel Generators for greater than 15 minutes

   and

   Loss of power to System Service Transformer 64 **or** 65

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS1 Loss of all Offsite Power and Loss of all Onsite AC Power to Essential Busses

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Levels:

1. Loss of power to System Service Transformers 64 and 65

and

Failure of Emergency Diesel Generators to supply power to one full division of emergency busses

and

Failure to restore power to at least one division of emergency busses within 15 minutes from the time of loss of both offsite and onsite AC power

SYSTEM MALFUNCTIONS

GENERAL EMERGENCY

SG1 Prolonged Loss of all Offsite Power and Prolonged Loss of all Onsite AC Power

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Loss of power to System Service Transformers 64 and 65

and

Failure of Emergency Diesel Generators to supply power to one full division of emergency busses

and

Failure to restore power to at least one division of emergency busses within 15 minutes from the time of loss of both offsite and onsite AC power

and

Restoration of at least one full division of emergency busses within 4 hours is **not** likely, **OR** RPV water level less than 0 inches

SYSTEM MALFUNCTIONS

ALERT

SA2 Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Scram Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Scram Was Successful

OPERATING MODE APPLICABILITY: 1, 2

Emergency Action Level:

1. A valid initiating scram signal received, **but** no automatic scram occurred

and

Manual actions taken at COP H11-P603 were successful in scram of control rods to achieve reactor power < 3%

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS2 Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Scram Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Scram Was NOT Successful

OPERATING MODE APPLICABILITY: 1, 2

Emergency Action Level:

1. A valid initiating scram signal received, **but** no automatic scram occurred

and

Manual actions taken at COP H11-P603 were **not** successful in scram of control rods to achieve reactor power < 3%

SYSTEM MALFUNCTIONS

GENERAL EMERGENCY

SG2 Failure of the Reactor Protection System to Complete an Automatic Scram and Manual Scram was NOT Successful and there is Indication of an Extreme Challenge to the Ability to Cool the Core

OPERATING MODE APPLICABILITY: 1, 2

Emergency Action Level:

1. A valid initiating scram signal received, **but** no automatic scram occurred

and

Manual actions taken at COP H11-P603 were **not** successful in scram of control rods to achieve reactor power < 3%

and

Emergency depressurization is required by any Emergency Operating Procedure

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU2 Inability to Reach Required Shutdown within Technical Specification Limits

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Plant is not brought to required operating mode within Technical Specifications LCO Action Statement Time

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU3 Unplanned Loss of most or all Safety System Annunciation in the Control Room for Greater than 15 Minutes

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Loss of most or all (greater than approximately 75%) annunciators on H11-P601, P602, and P603 for greater than 15 minutes

and

Compensatory non-alarming indications are available

and

In the opinion of the Shift Manager (SM), the loss of the annunciators requires increased surveillance to safely operate the plant

and

Annunciator loss does not result from planned action

SYSTEM MALFUNCTIONS

ALERT

SA4 Unplanned Loss of most or all Safety System Annunciation in Control Room with Either (1) a Significant Transient in Progress, or (2) Compensatory Non-Alarming Indicators Unavailable

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Loss of most or all (greater than approximately 75%) annunciators on H11-P601, P602, and P603 for greater than 15 minutes

and

In the opinion of the Shift Manager (SM), the loss of the annunciators requires increased surveillance to safely operate the plant

and

Annunciator loss does not result from planned action

and

A significant plant transient is in progress, **or**

Compensatory non-alarming indications are unavailable

NOTE: Significant transients include:

1. Manual or automatic scrams
2. Runbacks involving greater than 25% thermal power change
3. ECCS injections
4. Thermal power oscillations of 10% or greater

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS6 Inability to Monitor a Significant Transient in Progress

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Loss of most or all (greater than approximately 75%) annunciators associated with H11-P601, P602, and P603

and

Compensatory non-alarming indications unavailable

and

Indications needed to monitor safety functions associated with lost annunciators unavailable

and

Significant transient in progress

NOTE: Significant transients include:

1. Manual or automatic scrams
2. Runbacks involving greater than 25% thermal power change
3. ECCS injections
4. Thermal power oscillations of 10% or greater

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU4 Fuel Clad Degradation

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Gross radioactivity rate of noble gases measured at the discharge of the 2.2 minute delay piping greater than 340 millicuries/sec after 30 minute delay

2. Reactor scram due to main steam line radiation greater than three times full power value as may be indicated by Annunciator 3D82

3. Dose Equivalent I-131 greater than 0.2 μCi/gm for more than 48 hours

4. Dose equivalent I-131 greater than 4.0 μCi/gm

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU5 RCS Leakage

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Levels:

1. Unidentified or pressure boundary leakage greater than 10 gpm

2. Identified leakage greater than 25 gpm

SYSTEM MALFUNCTIONS

ALERT

SA6 Main Steam Line Break

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Indication of Main Steam Line Break on Isolation Mimic

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU6 Unplanned Loss of All Onsite or Offsite Communications Capabilities

OPERATING MODE APPLICABILITY: All

Emergency Action Levels:

1. Loss of **all** the following onsite communications capabilities affecting the ability to perform routine operations:

   Administrative Telephones
   Hi-Com
   Plant radios

2. Loss of **all** the following offsite communications capabilities:

   Administrative Telephones
   Emergency Telephones

SYSTEM MALFUNCTIONS

UNUSUAL EVENT

SU7 Unplanned Loss of Required DC Power During Cold Shutdown or Refueling Mode for Greater than 15 Minutes

OPERATING MODE APPLICABILITY: 4, 5

Emergency Action Level:

1. Loss of both Div. 1 **and** Div. 2 130V DC Systems as indicated by DC bus voltage less than:

   Div 1: 112.2V DC

   Div 2: 107.4V DC

   and

   Inability to restore voltage on either Div. 1 or Div. 2 130V DC bus within 15 minutes from discovery of loss

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS3 Loss of All Vital DC Power

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Loss of both Div. 1 **and** Div. 2 130V DC Systems as indicated by DC bus voltage less than:

   Div 1: 112.2V DC

   Div 2: 107.4V DC

   and

   Inability to restore voltage on either Div. 1 or Div. 2 130V DC bus within 15 minutes from discovery of loss

SYSTEM MALFUNCTIONS

ALERT

SA3 Inability to Maintain Plant in Cold Shutdown

OPERATING MODE APPLICABILITY: 4, 5

Emergency Action Level:

1. Div. 1 and Div. 2 of the RHR System are not effective in Decay Heat Removal

and

Reactor coolant temperature exceeds 200°F, **or**

Results in uncontrolled temperature rise approaching 200°F

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS5 Loss of Water Level in the Reactor Vessel that has or will Uncover Fuel in the Reactor Vessel

OPERATING MODE APPLICABILITY: 4, 5

Emergency Action Level:

1. RPV water level cannot be kept above 0 inches

SYSTEM MALFUNCTIONS

SITE AREA EMERGENCY

SS4 Complete Loss of Function Needed to Achieve or Maintain Hot Shutdown

OPERATING MODE APPLICABILITY: 1, 2, 3

Emergency Action Level:

1. Any combination of events which would require the plant to be shutdown from normal operating pressure and temperature

and

Torus water temperature and RPV pressure cannot be kept below the Heat Capacity Limit (HCL)

INITIATING CONDITION MATRIX

TAB A

	TAB A Abnormal Rad Levels/Radiological Effluent		
GENERAL EMERGENCY	AG1 Site boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 1000 mrem TEDE or 5000 mrem Adult Thyroid for the actual or projected duration of the release using actual meteorology All Pg A-4		
SITE AREA EMERGENCY	AS1 Site boundary dose resulting from an actual or imminent release of gaseous radioactivity that exceeds 100 mrem TEDE or 500 mrem Adult Thyroid for the actual or projected duration of the release All Pg A-3		
ALERT	AA1 Any unplanned release of gaseous or liquid radioactivity to the environment that exceeds 200 times the values of ODCM control 3.11.2.1 or 3.11.1.1 for 15 minutes or longer All Pg A-2	AA2 Major damage to irradiated fuel or loss of water level that has or will result in the uncovering of irradiated fuel outside the reactor vessel All Pg A-6	AA3 Releases of radioactive material or increases in radiation levels within the facility that impede operation of systems required to maintain safe operations or to establish or maintain cold shutdown All Pg A-7
UNUSUAL EVENT	AU1 Any unplanned release of gaseous or liquid radioactivity to the environment that exceeds two times the values of ODCM control 3.11.2.1 or 3.11.1.1 for 60 minutes or longer All Pg A-1		AU2 Unexpected increase of plant radiation levels All Pg A-5

C01

INITIATING CONDITION MATRIX

TAB F

TAB F
Fission Product Barrier Degradation

		Fuel Clad Barrier EALs		Reactor Coolant Barrier EALs		Primary Containment Barrier EALs	
		Loss	Potential Loss	Loss	Potential Loss	Loss	Potential Loss (Note 2)
GENERAL EMERGENCY	FG1 Loss of any two barriers **and** potential loss of third barrier 1,2,3	**1. RPV Water Level** RPV water level less than -40"	**1. RPV Water Level** RPV water level less than 0"	**1. RPV Water Level** RPV water level less than 0"	**2. Reactor Coolant Leak Rate (see Note 1)** Reactor coolant unidentified leakage greater than 50 gpm inside the Drywell **or** Unisolable Primary System leakage outside Drywell (as may be indicated by isolation mimic, **or** exceeding a maximum safe operating Secondary Containment temperature or radiation level of 29.100.01, Sheet 5, Table 12 **or** 14) (see SU5 and SA6 also)	**2. Containment Isolation Status** Failure of both valves in any one line to close **and** downstream pathway to the environment exists, **or** Containment venting requiring trip defeat per EOPs, **or** Unisolable Primary System leakage outside Drywell (as may be indicated by isolation mimic, **or** exceeding a maximum safe operating Secondary Containment temperature or radiation level of 29.100.01, Sheet 5, Table 12 **or** 14) (see SA6 also)	**1. RPV Water Level** RPV water level cannot be restored and maintained above - 40", **or** unknown
SITE AREA EMERGENCY	FS1 Loss **or** potential loss of any two barriers 1,2,3			**3. Drywell Pressure** Drywell pressure greater than 1.68 psig		**3. Drywell Pressure** Rapid unexplained decrease following initial increase, **or** Drywell pressure response not consistent with LOCA conditions	**3. Containment Pressure or Gas Mix** Torus pressure cannot be maintained below the primary containment pressure limit, **or** Drywell or Torus hydrogen concentration ≥ 6% **and** Drywell or Torus oxygen concentration > 5%
ALERT	FA1 Any loss **or** any potential loss of either fuel clad **or** reactor coolant system 1,2,3	**2. Containment Radiation** CHRRM reading greater than 2,500 R/hr **3. Primary Coolant Activity Level** Primary coolant activity level greater than 300 µCi/gm DE 1-131 (see SU4 also)		**4. Containment Radiation** CHRRM reading greater than 5 R/hr two minutes after reactor shutdown or beyond			**4. Containment Radiation** CHRRM reading greater than 10,000 R/hr
UNUSUAL EVENT	FU1 Any loss **or** any potential loss of primary containment 1,2,3	**4. Determination of release of at least 5% of the Gap activity from the fuel** **5. Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates loss of the fuel clad barrier	**5. Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates potential loss of the fuel clad barrier	**5. Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates loss of the reactor coolant barrier	**5. Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates potential loss of the reactor coolant barrier	**6 Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates loss of containment barrier	**5. Determination of release of at least 20% Gap activity from the fuel** **6. Emergency Director Judgment** Any condition in the judgment of the Emergency Director that indicates potential loss of the containment barrier

NOTE 1: Stuck open SRV is not a reactor coolant barrier loss or potential loss unless there is a concurrent loss of the fuel clad barrier, in which case the stuck open SRV constitutes a potential loss of the reactor coolant barrier (FS1 applies).

NOTE 2: Primary Containment Barrier Potential Loss EALs 1 - 5 are indicative of conditions warranting a General Emergency declaration.

C02

INITIATING CONDITION MATRIX

TAB H

	TAB H Hazards and Other Conditions Affecting Plant Safety					
GENERAL EMERGENCY				HG1 Security event resulting in loss of physical control of the facility All Pg H-10		HG2 Other conditions existing which in the judgment of the Emergency Director warrant declaration of General Emergency All Pg H-16
SITE AREA EMERGENCY				HS1 Security event in a Plant Vital Area All Pg H-9	HS2 Control Room evacuation has been initiated and Plant control cannot be established All Pg H-12	HS3 Other conditions existing which in the judgment of the Emergency Director warrant declaration of a Site Area Emergency All Pg H-15
ALERT	HA1 Natural and destructive phenomena affecting the Plant Vital Area All Pg H-2	HA2 Fire or explosion affecting the operability of Plant safety systems required to establish or maintain safe shutdown All Pg H-4	HA3 Release of toxic or flammable gases within a facility structure which jeopardizes operation of systems required to maintain safe operations or to establish or maintain cold shutdown All Pg H-6	HA4 Security event in a Plant Protected Area All Pg H-8	HA5 Control Room evacuation has been initiated All Pg H-11	HA6 Other conditions existing which in the judgment of the Emergency Director warrant declaration of an Alert All Pg H-14
UNUSUAL EVENT	HU1 Natural and destructive phenomena affecting the Protected Area All Pg H-1	HU2 Fire within Protected Area boundary not extinguished within 15 minutes of detection All Pg H-3	HU3 Release of toxic or flammable gases deemed detrimental to safe operation of the Plant All Pg H-5	HU4 Confirmed security event which indicates a potential degradation in the level of safety of the Plant All Pg H-7		HU5 Other conditions existing which in the judgment of the Emergency director warrant declaration of an Unusual Event All Pg H-13

C03

INITIATING CONDITION MATRIX

TAB S

	TAB S System Malfunction										
GENERAL EMERGENCY	SG1 Prolonged loss of all offsite power and prolonged loss of all onsite AC power 1, 2, 3 Pg S-5		SG2 Failure of the reactor protection system to complete an automatic scram and manual scram was NOT successful and there is indication of an extreme challenge to the ability to cool the core 1, 2 Pg S-8								
SITE AREA EMERGENCY	SS1 Loss of all offsite power and loss of all onsite AC power to essential busses 1, 2, 3 Pg S-4		SS2 Failure of reactor protection system instrumentation to complete or initiate an automatic reactor scram once a reactor protection system setpoint has been exceeded and manual scram was NOT successful 1, 2 Pg S-7		SS6 Inability to monitor a significant transient in progress 1, 2, 3 Pg S-12				SS3 Loss of all vital DC power 1, 2, 3 Pg S-18	SS5 Loss of water level in the reactor vessel that has or will uncover fuel in the reactor vessel 4, 5 Pg S-20	SS4 Complete loss of function needed to achieve or maintain hot shutdown 1, 2, 3 Pg S-21
ALERT	SA1 Loss of all offsite power and loss of all onsite AC power to essential busses during cold shutdown or refueling mode 4, 5 defueled Pg S-2	SA5 AC power capability to essential busses reduced to a single power source for greater than 15 minutes such that any additional single failure would result in station blackout 1, 2, 3 Pg S-3	SA2 Failure of reactor protection system instrumentation to complete or initiate an automatic reactor scram once a reactor protection system setpoint has been exceeded and manual scram was successful 1, 2 Pg S-6		SA4 Unplanned loss of most or all safety system annunciation in Control Room with either (1) a significant transient in progress, or (2) compensatory non-alarming indicators unavailable 1, 2, 3 Pg S-11		SA6 Main steam line break 1, 2, 3 Pg S-15			SA3 Inability to maintain plant in cold shutdown 4, 5 Pg S-19	
UNUSUAL EVENT	SU1 Loss of all offsite power to essential busses for greater than 15 minutes All Pg S-1			SU2 Inability to reach required shutdown within Technical Specification limits 1, 2, 3 Pg S-9	SU3 Unplanned loss of most or all safety system annunciation in the Control Room for greater than 15 minutes 1, 2, 3 Pg S-10	SU4 Fuel clad degradation All Pg S-13	SU5 RCS Leakage 1, 2, 3 Pg S-14	SU6 Unplanned loss of all onsite or offsite communications capabilities All Pg S-16	SU7 Unplanned loss of required DC power during cold shutdown or refueling mode for greater than 15 minutes 4, 5 Pg S-17		

END

C04

ASSEMBLY AND ACCOUNTABILITY AND ONSITE PROTECTIVE ACTIONS

Revision Summary

1) Added NRC Inspectors in step 4.3.2.
2) Recreated Enclosure A flowchart using Visio.

Implementation Plan

1) This revision goes into effect upon issuance.

Attachments - None

Enclosures

A	031303	Onsite Protective Actions Flowchart
B	080698	Announcement for Assembly and Accountability Within the Protected Area
C	080698	Announcement for Unaccounted Personnel Within the Protected Area
D	102897	Announcement for a Security Threat to the Fermi 2 Site
E	102897	Announcement for Assembly and Accountability Within the Owner Controlled Area
F	121800	Announcement for Onsite Evacuation Order
G	102897	Safe Shelter Area

Information and Procedures				
DSN EP-530	**Revision** 15	**DCR #** 03-0518	**DTC** TPEPT	**File #** 1703.10
IP Code I	**Date Approved** 03-17-03	**Released By** P. Scott/s/	**Date Issued** 03-20-03	**Recipient** 435

CONTROLLED

1.0 PURPOSE

To describe the actions necessary to order assembly and accountability including guidance for ordering onsite protective actions.

2.0 USE REFERENCES - None

3.0 ENTRY CONDITIONS

3.1 Either or both of the following conditions exist:

3.1.1 An Alert, a Site Area Emergency, or a General Emergency has been declared.

3.1.2 An unexpected or uncontrolled hazard exists, or is anticipated in the plant or Owner Controlled Area.

4.0 GENERAL INFORMATION

4.1 When an Alert or higher emergency classification is declared, all personnel within the Protected Area shall be accounted for to ensure their location. Accountability of all personnel within the Protected Area shall be completed within 30 minutes. Protected Area assembly and accountability starts when the order is given to assemble via Hi-Com announcement or by Nuclear Security. Protected Area assembly/accountability ends when the status of all personnel has been reported to the Emergency Director.

4.2 Protected Area assembly and accountability will precede, whenever possible, the order to evacuate. It is desirable in an emergency to establish accountability of personnel within the Protected Area as soon as possible to facilitate location of any missing individuals, and to evacuate non-Emergency Response Organization (ERO) personnel from plant areas.

4.3 For the purpose of assembly and accountability, all personnel who are within the Protected Area report to the following facilities:

4.3.1 Control Room

- RERP personnel
- Emergency Response Organization (ERO) assigned to Control Room

4.3.2 Technical Support Center (TSC)

- Medical personnel
- ERO assigned to TSC
- NRC Inspectors (having unescorted access to Protected Area)

4.3.3 Operations Support Center (OSC)

- Operations Support personnel
- Radiation Protection personnel assigned to OSC
- Chemistry personnel assigned to OSC
- Fire Brigade
- ERO assigned to OSC

4.3.4 Alternate Operations Support Center (AOSC)

- I&C personnel
- Electrical/Mechanical Maintenance personnel
- Fire Protection personnel
- Warehouse A personnel
- ERO assigned to the AOSC

4.3.5 Emergency Operations Facility (EOF)

- ERO assigned to EOF

4.3.6 Fermi 1 Complex

- All other (non-ERO) DECo personnel

4.3.7 GTOC

- All non-ERO contractors and visitors

4.4 An Owner Controlled Area (OCA) Assembly/Accountability is a protective action that accounts for personnel outside the Protected Area. This order instructs OCA personnel to report to their Supervisors/Work Leads. Supervisors/Work Leads will inform area Building Coordinators upon confirmation of any personnel missing or unaccounted for.

5.0 IMMEDIATE ACTIONS

5.1 Assembly

Who	*Step*	*Action*
Emergency Director/ Shift Manager	5.1.1	If emergency conditions/events are occurring that require assembly and accountability and/or onsite protective actions, GO TO the Onsite Protective Actions Flowchart in Enclosure A.

6.0 PROCEDURE

6.1 Protected Area Assembly/Accountability Order

Who	*Step*	*Action*
Emergency Director/ Shift Manager	6.1.1	Inform the Security Shift Supervisor that Assembly/Accountability has been ordered.
	6.1.2	Verify personnel accountability by checking reports received from the Security Shift Supervisor.
	6.1.3	If personnel are unaccounted for, direct Control Room personnel to make the announcement in Enclosure C over the plant Hi-Com, using the Hi-Com Override to locate missing persons.
	6.1.4	If personnel are still unaccounted for after using Enclosure C, direct the OSC Coordinator to dispatch a Damage Control and Rescue Team to locate any unaccounted for personnel.
Security Personnel/ Damage Control Rescue Team	6.1.5	Provide frequent updates to Emergency Director until all personnel have been accounted for in the Protected Area.
	6.1.6	When all personnel have been accounted for, notify the Emergency Director.

6.2 Owner Controlled Area (OCA) Assembly/Accountability

Who	*Step*	*Action*
Emergency Director/ Shift Manager	6.2.1	Order OCA Assembly/Accountability in accordance with Enclosure E.

6.3 Onsite Sheltering

NOTE: Onsite sheltering is a protective action taken for tornado observations. Onsite sheltering for tornado warnings (normally received by way of Security or System Supervisor) is ordered in accordance with Abnormal Operating Procedures.

Who	*Step*	*Action*
Emergency Director/ Shift Manager	6.3.1	If tornado observations are reported: 1. Sound tornado alarm. **NOTE:** Safe shelter areas are identified in Enclosure G. 2. Make Hi-Com System/Override announcement ordering all onsite personnel to take shelter at the nearest Safe Shelter Area. 3. If the Hi-Com System/Override is not functioning, instruct Nuclear Security to announce the sheltering order in accordance with EP-205-01.

NOTE: The Emergency Director should consult with the STA (Control Room) or Radiation Protection Advisor (RPA)/Dose Assessors (TSC) before ordering onsite sheltering for abnormal effluent releases.

Emergency Director/ Shift Manager	6.3.2	If a short duration radiological effluent release occurs (< 2 hours), consider performing the following actions: 1. Make Hi-Com System/Override announcement ordering all onsite personnel to remain indoors with doors and windows closed until further notice. 2. Inform Nuclear Security of sheltering order. 3. If the Hi-Com System/Override is not functioning, instruct Nuclear Security to announce the sheltering order in accordance with EP-205-01.

6.4 Onsite Evacuation

Who	*Step*	*Action*
Emergency Director/ Shift Manager	6.4.1	Before ordering an onsite evacuation: 1. Determine hazard location/plume direction (consult with Shift Technical Advisor/Radiation Protection Advisor/Dose Assessors). 2. Ensure the Fermi 2 Protective Action Recommendation (PAR) for onsite personnel does not conflict with any state protective action order in effect.
	6.4.2	**If no** radiological hazards are present at the time of the evacuation order: 1. Inform Nuclear Security of the evacuation order. 2. GO TO step 6.4.5.
	6.4.3	**If** radiological hazards are present and/or personnel monitoring is required: 1. Select one of the following offsite Assembly Areas: a. Newport Service Center (evacuating West) b. Monroe Power Plant (evacuating South) c. Trenton Channel Power Plant (evacuating North) 2. Inform Nuclear Security of the evacuation order and selected Offsite Assembly Area.
	6.4.4	If personnel evacuate to an offsite assembly area, inform the Radiological Emergency Team (RET) Leader or Radiation Protection Coordinator (RPC) to dispatch the Personnel Monitoring Teams (PMTs).
	6.4.5	Order onsite evacuation in accordance with Enclosure F.
	6.4.6	If Hi-Com System/Override is not functioning, instruct Nuclear Security to announce the evacuation order in accordance with EP-205-01.

7.0 FOLLOW-UP ACTIONS

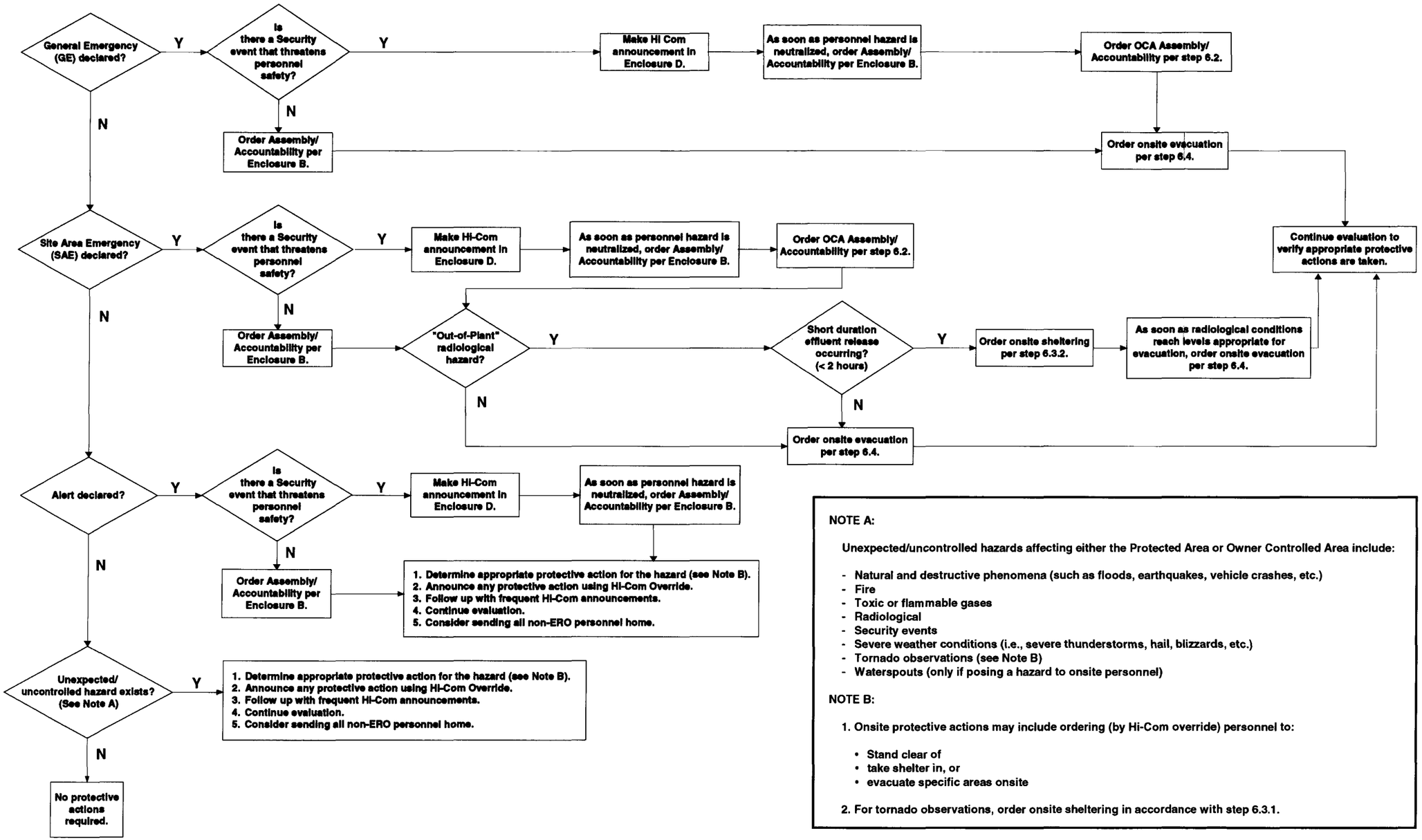
Who	*Step*	*Action*
Emergency Director/ Shift Manager	7.1.1	Follow-up onsite protection orders as follows: 1. Continue to assess physical and radiological hazards onsite. 2. Verify appropriate onsite protective actions have been taken to protect the health and safety of onsite personnel.

8.0 RECORDS

8.1 There are no required records generated through the performance of this procedure.

END OF TEXT

ONSITE PROTECTIVE ACTIONS FLOWCHART



NOTE A:

Unexpected/uncontrolled hazards affecting either the Protected Area or Owner Controlled Area include:

- Natural and destructive phenomena (such as floods, earthquakes, vehicle crashes, etc.)
- Fire
- Toxic or flammable gases
- Radiological
- Security events
- Severe weather conditions (i.e., severe thunderstorms, hail, blizzards, etc.)
- Tornado observations (see Note B)
- Waterspouts (only if posing a hazard to onsite personnel)

NOTE B:

1. Onsite protective actions may include ordering (by Hi-Com override) personnel to:
   - Stand clear of
   - take shelter in, or
   - evacuate specific areas onsite
2. For tornado observations, order onsite sheltering in accordance with step 6.3.1.

ANNOUNCEMENT FOR ASSEMBLY AND ACCOUNTABILITY WITHIN THE PROTECTED AREA

NOTE (1): Considerations **before** Ordering Assembly/Accountability:

- If severe weather/tornado warning is in progress, the Emergency Director must verify outside conditions are safe before ordering Assembly/Accountability.
- If physical hazards are present (such as fire, flood, earthquake, toxic or flammable gases, etc.), the Assembly/Accountability message must be modified to include protective actions for the hazard.
- If emergency repair activities are in progress and need to be continued per the Emergency Director's discretion, the Emergency Director will notify Nuclear Security to have individuals accounted for.

NOTE (2): Enclosure D shall be used for security events that involve a threat to the facility.

When an ALERT (or higher class if applicable) is declared:

1. Sound the Plant Area alarm.

2. Make the following announcement on the plant Hi-Com system, using Hi-Com override:

> "Attention all personnel. An alert (or higher class if applicable) has been declared by the Emergency Director. **All** personnel within the protected area report to your assigned assembly area **immediately! Emergency Response Organization** personnel immediately report to your designated Emergency Response Facility. **All other** personnel immediately exit the Protected Area! Detroit Edison employees report inside the Fermi 1 complex.
>
> All other personnel report inside GTOC."
>
> **REPEAT ANNOUNCEMENT**

3. If Hi-Com override is not functioning, instruct Nuclear Security to announce Assembly/Accountability (in accordance with EP-205-01) using battery powered bull horns and vehicle public address speakers.

4. GO TO step 6.1.1.

ANNOUNCEMENT FOR UNACCOUNTED PERSONNEL WITHIN THE PROTECTED AREA

1. Make the following announcement over the plant Hi-Com system, using Hi-Com override:

> "Attention all personnel within the Protected Area.
>
> Will the following personnel immediately report your location to the Control Room."
>
> (Announce the name and badge number of each unaccounted for person.)
>
> **REPEAT ANNOUNCEMENT**

2. GO TO step 6.1.4.

ANNOUNCEMENT FOR A SECURITY THREAT TO THE FERMI 2 SITE

NOTE (1): This message may be modified, as required by ongoing events, at the discretion of the Emergency Director.

NOTE (2): Assembly and Accountability must be performed as soon as the security threat is neutralized.

1. Make the following announcement over the plant Hi-Com System using the Hi-Com Override:

"Attention all personnel.

There is a security threat to the Fermi 2 site.

All personnel are to take cover **immediately**.

An alert (or higher class if applicable) has been declared by the Emergency Director.

DO NOT report to your assembly area.

Take cover immediately"

REPEAT ANNOUNCEMENT

2. Return to Onsite Protective Action Flowchart (Enclosure A).

ANNOUNCEMENT FOR ASSEMBLY AND ACCOUNTABILITY WITHIN THE OWNER CONTROLLED AREA

NOTE (1): An Owner Controlled Area (OCA) Assembly/Accountability order may be necessary to account for personnel within the OCA during security events or hazardous conditions compromising their health and safety.

NOTE (2): This order usually precedes an order to evacuate non-ERO personnel offsite.

When an Owner Controlled Area Assembly/Accountability is ordered:

1. Sound the Plant Area alarm.

2. Make the following announcement on the plant Hi-Com system, using Hi-Com override:

> "Attention all personnel. An Owner Controlled Area assembly and accountability has been ordered. **All** personnel in the Owner Controlled Area report to your supervisor or work lead and stand by for further instructions."
>
> **REPEAT ANNOUNCEMENT**

3. Return to Onsite Protective Action Flowchart (Enclosure A).

ANNOUNCEMENT FOR ONSITE EVACUATION ORDER

When an onsite evacuation is ordered:

1. Sound the Plant Area Alarm.

2. Make the appropriate announcement below on the plant Hi-Com System using the Hi-Com Override.

For non-radiological hazards:

"Attention all personnel. A site evacuation order has been declared by the Emergency Director.

All non-Emergency Response Organization personnel evacuate the site and go home."

REPEAT ANNOUNCEMENT

For radiological hazards/personnel monitoring:

"Attention all personnel. A site evacuation order has been declared by the Emergency Director.

All non-Emergency Response Organization personnel evacuate to (name one below):"

TRENTON CHANNEL POWER PLANT

or

NEWPORT SERVICE CENTER

or

MONROE POWER PLANT

REPEAT ANNOUNCEMENT

3. GO TO step 6.4.6.

SAFE SHELTER AREAS

NOTE (1): The following locations are designated Safe Shelter Areas for all onsite personnel located both in the Protected Area and Owner Controlled Area. These locations are for safe sheltering for severe weather warnings (tornadoes). Onsite personnel must immediately report to the nearest Safe Shelter Area upon acknowledging a sheltering order due to a tornado warning announcement made by the Control Room (via Hi-Com Override) or Nuclear Security personnel.

NOTE (2): Signs are posted throughout the Fermi site to identify the nearest Safe Shelter Area.

Six locations are identified as Safe Shelter Areas:

1. Turbine Building 1st Floor for personnel with RRA access

2. OSB hallway (next to RRA entrance) leading to the Turbine Building 1st Floor entrance for personnel without RRA access

3. Outage Building (DWEEB) 1st Floor

4. Technical Support Center (TSC) 1st Floor OBA

5. Inside identified Shelter Areas in Fermi 1

6. Nuclear Operations Center (NOC) in Room 146, 160, 162, and 164 (EOF)

NOTE: Nuclear Security personnel can remain in the Primary Access Portal (PAP) during severe weather events since the PAP is considered a Safe Shelter Area.

Personnel located throughout the OSB and Outer Buildings 41, 42, 43, and 49 take shelter in the Turbine Building 1st Floor (RRA access) or hallway leading to TB-1 entrance (without RRA access).

Personnel located in the Availability Improvement Building (AIB), Buildings 24 (Warehouse D) 44A, and 45, Warehouse C, and Alternate Access Portal (AAP) take shelter in the Outage Building.

Personnel located in Warehouse B, Communications Building, General Training & Orientation Center (GTOC), Technical Assistance Building (TAC), Fermi Information Center, and Buildings 20, 21, 22, 23, 26, 27, 37, 40, and 96 take shelter inside the posted Shelter Areas in Fermi 1.

Personnel located in the NOC take shelter in Rooms 146, 160, 162, and 164 (EOF).

END

SECURITY FORCE

Revision Summary

1) Added Use Reference in Section 2.0.
2) Revised step 5.3.3.2 to change the name of Consumers Energy Company to Nuclear Management Company.
3) Added step 5.4.1.1.a for Security to sweep the Owner Controlled Area, when practical, for personnel unaware of emergency conditions.
4) Added steps 5.4.1.4 and 5.4.2.5 to notify visitors in the Owner Controlled Area of appropriate actions to take during an emergency.
5) Changed step 5.4.3.1.b to clarify the need for Security to sweep the Owner Controlled Area, when practical, for personnel unaware of emergency conditions.
6) Changed Enclosure A, Tabs 1, 2, 3, and 4 to Attachments and made the following changes:
   - Moved sections of text from former Enclosure A, Tabs 1, 2, 3, and 4 to procedure.
   - Revised Attachment 10 to clarify the issuance of dosimetry to Security officers in the Owner Controlled Area.
7) Revised procedure format to match requirements of the Fermi Writers Guide.
8) This is a total rewrite. No revision bars have been used.

Implementation Plan

1) This procedure goes into effect upon issuance.

Attachments

1	090496	Security Personnel Accountability Report
2	031003	Protected Area Assembly and Accountability – Security Shift Supervisor
3	031003	Protected Area Assembly and Accountability – Secondary Alarm Station Operator
4	031003	Protected Area Assembly and Accountability – Personnel Accountability Representative Dispatched to OSC
5	031003	Protected Area Assembly and Accountability – Personnel Accountability Representative Dispatched to AOSC
6	031003	Protected Area Assembly and Accountability – Member of Security Force Assigned to SAS
7	031003	Emergency Response Facilities – OSC Security Coordinator
8	031003	Emergency Response Facilities – TSC Security Advisor
9	031003	Emergency Response Facilities – TSC Assembly/Accountability Officer
10	031003	Emergency Response Facilities – EOF Security Advisor

Enclosures

A	031003	Safe Shelter Access
B	090496	Security Accountability Announcement

1.0 PURPOSE

To prescribe the actions of the security force when the Radiological Emergency Response Preparedness Plan is activated. This includes controlling site and protected area access, and conducting assembly, accountability, site evacuation, and offsite assembly.

2.0 USE REFERENCES

2.1 EP-608, Joint Public Information Center Operation

3.0 ENTRY CONDITIONS

3.1 Any of the following events occur:

3.1.1 The Shift Manager or Emergency Director declares an Unusual Event, Alert, Site Area Emergency, or General Emergency.

3.1.2 Either or both of the following conditions exist:

1. Local offsite assistance groups are requested to support emergency teams within the plant and elsewhere.

2. Members of the media are requesting entry to the Owner Controlled Area (OCA).

3.1.3 The Nuclear Security Force is informed that assembly, accountability or evacuation has been ordered by the Emergency Director.

3.1.4 The Emergency Director directs a Site Area Evacuation due to an unexpected or uncontrolled hazard which affects the Owner Controlled Area.

4.0 GENERAL INFORMATION

4.1 Assembly and accountability of personnel within the Protected Area will precede, whenever possible, the order to evacuate. It is desirable, in an emergency situation, to establish accountability of personnel within the Protected Area early, to facilitate location of any missing individuals, and to evacuate non-essential personnel from plant areas.

4.2 A Personnel Accountability Representative (PAR) is a Member of the Security Force (MSF) who has been assigned the responsibility for personnel accountability in an assembly area. Typical responsibilities include:

4.2.1 Accounting for personnel in the event of Assembly and Accountability.

4.2.2 At the request of OSC coordinator, providing alternate communications and back-up assistance for the Emergency Response Team at the scene.

4.2.3 Maintaining proper security.

4.2.4 Providing escorts for Emergency Response Teams in areas where they normally do not have access.

4.3 Site access for members of the media and offsite assistance personnel (who are not Detroit Edison) shall be authorized by the Emergency Director/Emergency Officer.

5.0 IMMEDIATE ACTIONS

5.1 Protected Area Assembly and Accountability

5.1.1 Security Accountability Announcement (with failure of plant hi-com system) – refer to Enclosure B.

NOTE (1): When an Alert, a Site Area Emergency, or a General Emergency is declared, the Control Room shall sound the Plant Area alarm and make the appropriate announcement on the Plant Hi-Com System.

NOTE (2): When an Assembly and Accountability is declared, all personnel within the Protected Area shall be accounted for to ensure their location. Accountability of all personnel within the Protected Area shall be completed within 30 minutes.

5.1.2 The following steps shall be accomplished if an assembly/accountability is directed:

1. The Security Shift Supervisor **shall** complete the Protected Area Assembly and Accountability – Security Shift Supervisor (Attachment 2).

2. The Security Secondary Alarm Station Operator **shall** complete the Protected Area Assembly and Accountability – Secondary Alarm Station Operator (Attachment 3).

3. The Personnel Accountability Representative dispatched to the OSC **shall** complete the Protected Area Assembly and Accountability – Personnel Accountability Representative Dispatched to OSC (Attachment 4).

4. The Personnel Accountability Representative dispatched to the AOSC **shall** complete the Protected Area Assembly and Accountability – Personnel Accountability Representative Dispatched to AOSC (Attachment 5).

5. The MSF assigned to SAS **shall** complete the Protected Area Assembly and Accountability – Member of Security Force Assigned to SAS (Attachment 6).

5.1.3 The following instructions apply when personnel are required to leave the Protected Area:

1. The Security Shift Supervisor/delegate will determine whether normal or rapid exit from the Protected Area is appropriate by contacting the Emergency Director.

2. In the event of rapid exit, all personnel will depart the Protected Area through one of the railroad gates near Warehouse B or through the vehicle gate located east of the Security Building, whichever is closest.

3. The Security Shift Supervisor or Response Force Leader (RFL) will post Security Officers at the gates before they are opened. Security Officers shall collect keycard badges from each person before allowing them to exit.

4. The Security Shift Supervisor or RFL shall assign MSF to bring surrendered keycard badges from the gates to the appropriate access portal to be run through the egress cardreaders. MSF will run the cards through the cardreaders as rapidly as possible to log the exiting personnel out of the Protected Area.

5. The SAS Operator will obtain a computer listing of personnel remaining within the Protected Area after personnel have departed.

6. The Security Shift Supervisor/RFL shall notify the Emergency Director of person(s) unaccounted for within 30 minutes of initiation of assembly/accountability.

5.2 Emergency Response Facilities

NOTE: EP-608, "Joint Public Information Center Operation," describes Nuclear Security's responsibilities whenever the Joint Public Information Center (JPIC) is activated.

5.2.1 When the OSC is activated, the OSC Security Coordinator **shall** complete Emergency Response Facilities – OSC Security Coordinator (Attachment 7).

5.2.2 When the TSC is activated, the TSC Security Advisor **shall** complete Emergency Response Facilities – TSC Security Advisor (Attachment 8).

5.2.3 When the TSC is activated, the Access Control Officer (ACO) at the TSC **shall** complete Emergency Response Facilities – TSC Assembly/Accountability Officer (Attachment 9).

5.2.4 Upon activation of the EOF, the EOF Security Advisor **shall** complete Emergency Response Facilities – EOF Security Advisor (Attachment 10).

5.3 Site Access

5.3.1 The Security Force shall restrict access **except** to members of the Emergency Response Organization and offsite personnel as requested by the Emergency Director/Emergency Officer providing support for Fermi 2 emergency operations.

5.3.2 Site access for members of the media shall not be granted unless:

1. A Corporate Communications representative is present to supervise the media group.

2. Authorized access is granted by the Emergency Director/Emergency Officer.

Upon access authorization, members of the media shall be restricted to the Nuclear Operations Center and they will be escorted at all times by Corporate Communications personnel.

5.3.3 The Secondary Alarm Station (SAS) operator shall:

1. Direct the Access Control Officer (ACO) at the Primary and Alternate Access Portals (PAP, AAP) to halt access to all but emergency response personnel or other personnel as ordered by the Emergency Director/Emergency Officer.

2. Notify the Emergency Director/Emergency Officer when mutual assistance group, authorized government, and/or offsite assistance groups arrive. These groups include the following:

   - Frenchtown Fire Department
   - Ambulance Services
   - Local Law Enforcement Agencies
   - Medical Support Personnel
   - NRC
   - INPO
   - GE Company
   - Mutual Assistance Group
     - Indiana Michigan Power Company
     - Nuclear Management Company

3. Order authorized government and offsite assistance groups to be escorted as required.

4. Update the Security Advisor (TSC, EOF) and other Members of the Security Force as required on the status of access control.

5.3.4 The SAS ACO Shall:

1. Perform all functions ordered by the SAS operator.

2. Issue access badges to all responding offsite emergency response personnel.

3. Ensure escorts are assigned where required.

4. At the conclusion of the need for offsite emergency assistance, the SAS ACO shall:

   a. Account for all departing offsite assistance personnel.

   b. Secure access badges issued during the emergency.

5.3.5 The ACO at Fermi Drive gate shall:

1. When directed by the SAS Operator, halt access to the site to all but responding offsite emergency response groups.

2. Perform all other functions as directed by the Security Shift Supervisor.

5.3.6 The ACO at the Primary Access Portal shall:

1. When directed by the SAS Operator, halt access to the Protected Area to all but responding offsite emergency response groups.

2. Perform all other functions as directed by the Security Shift Supervisor.

5.3.7 The ACO at Alternate Access Portal shall:

1. When directed by the SAS Operator, halt access to the Protected Area to all but responding off-site emergency response groups.

2. Perform all other functions as directed by the Security Shift Supervisor.

5.4 Protective Actions

5.4.1 Assembly and Accountability in the Owner Controlled Area (OCA):

1. When directed by the Emergency Director, assembly and accountability within the OCA will be performed by HiCom announcement.

   a. Establish and maintain throughout the OCA, as soon as practical, frequent patrols that sweep for individuals unaware of emergency conditions.

NOTE: HiCom announcement is the preferred method of notification.

2. Security will take the following actions if the HiCom fails:

   a. If a HiCom failure occurs during normal work hours, the SAS operator, or the TSC Security Advisor if the TSC is operational, will notify all Building Coordinators in the OCA.

   b. If a HiCom failure occurs off hours, the SAS operator, or TSC Security Advisor if the TSC is operational, will dispatch personnel as soon as practical to check the OCA for personnel.

3. When notified, personnel will report to their supervisor for further direction.

4. When notified, visitors may be asked to exit the OCA.

5.4.2 Sheltering within the Owner Controlled Area (OCA):

1. When directed by the Emergency Director, sheltering actions in the OCA will be initiated by HiCom announcement.

2. Requirements to be implemented for tornado warnings in the Owner Controlled Area can be found in Enclosure A.

NOTE: HiCom announcement is the preferred method of notification.

3. Security will take the following actions if the HiCom fails:

   a. If a HiCom failure occurs during normal work hours, the SAS operator, or the TSC Security Advisor if the TSC is operational, will notify all Building Coordinators in the OCA.

   b. If a HiCom failure occurs off hours, the SAS operator, or TSC Security Advisor if the TSC is operational, will dispatch personnel as soon as practical to check the OCA for personnel.

4. When notified, personnel will report to their supervisor for further direction.

5. When notified, visitors will be asked to report to the nearest safe shelter area in the OCA.

5.4.3 Evacuation to Offsite Assembly Areas

1. The Security Shift Supervisor/delegate shall:

   a. Determine if offsite assistance will be required from the Emergency Director.

   b. Establish and maintain throughout the OCA, as soon as practical, frequent patrols that sweep for individuals unaware of emergency conditions.

2. When directed by the Emergency Director, notification of evacuation of the OCA will be performed by HiCom announcement.

NOTE: HiCom announcement is the preferred method of notification.

3. Security will take the following actions if the HiCom fails:

   a. If a HiCom failure occurs during normal work hours, the SAS operator, or the TSC Security Advisor if the TSC is operational, will notify all Building Coordinators in the OCA.

   b. If a HiCom failure occurs off hours, the SAS operator, or TSC Security Advisor if the TSC is operational, will dispatch personnel as soon as practical to check the OCA for personnel.

4. When Nuclear Security is notified of evacuation to offsite assembly areas, the TSC Security Advisor or EOF Security Advisor will contact Detroit Edison Corporate Security with the following information:

   a. Location of Offsite Assembly Area (Monroe Power Plant, Trenton Channel Power Plant, or Newport Service Center)

   b. Number of evacuees (obtained by SAS from the Emergency Director/Emergency Officer)

   c. Estimated arrival time

6.0 PROCEDURE - None

7.0 FOLLOW-UP ACTIONS - None

8.0 RECORDS

8.1 All completed Security Personnel Accountability Reports (Attachment 1) shall be retained or dispositioned in accordance with established requirements.

END OF TEXT

SECURITY PERSONNEL ACCOUNTABILITY REPORT

CM

89386 *This procedure implements Security's commitment to list keycards in sequential order on accountability forms to minimize the possibility of incorrect usage.*

SECURITY PERSONNEL ACCOUNTABILITY REPORT

For Facility/Area/Egress Point:_____ Date/Time:_____

Form Completed by:_____

Place 2 digits of the keycard number under appropriate column.

0-99	100	200	300	400	500	600	700	800	900

1000	1100	1200	1300	1400	1500	1600

Forward completed form to Supervisor - RERP, 164 NOC.

SECURITY PERSONNEL ACCOUNTABILITY REPORT

CM

89386 *This procedure implements Security's commitment to list keycards in sequential order on accountability forms to minimize the possibility of incorrect usage.*

SECURITY PERSONNEL ACCOUNTABILITY REPORT

For Facility/Area/Egress Point:_____ Date/Time:_____

Form Completed by:_____

Place 2 digits of the keycard number under appropriate column.

1600	1700	1800	1900	2000	2100	2200	2300	2400	2500

2600	2700	2800	2900	3000

Forward completed form to Supervisor, RERP, 164 NOC.

PROTECTED AREA ASSEMBLY AND ACCOUNTABILITY

SECURITY SHIFT SUPERVISOR

Completed	N/A	
☐	☐	Direct SAS operator to initiate personnel accountability activities.
☐		Ensure the MSF is dispatched to Assembly/Accountability areas and are ready to accept or request personnel accountability reports.
☐	☐	Communicate hazardous radiological conditions to MSF, as necessary

NOTE: If directed by Emergency Director:

☐	☐	Inform designated personnel to remain at their work location and continue ongoing work. Account for personnel who are notified.
☐	☐	If Hi-Com fails, refer to Enclosure B.
☐	☐	Complete list of unaccounted personnel.
☐	☐	Verify unaccounted personnel on site.
☐	☐	Determine personnel's last known location from computer.
☐	☐	Compare computer listings with affected security zones and the Personnel Accountability Report.

NOTE: Security accountability actions during an Assembly and Accountability are considered complete when all persons accounted/unaccounted for have been reported to the Emergency Director.

☐	☐	Report personnel not accounted for and their last location to the Control Room within the 30 minute time range.

Performed By: _____ / _____ Date: _____

Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

PROTECTED AREA ASSEMBLY AND ACCOUNTABILITY

SECONDARY ALARM STATION OPERATOR

Completed	N/A	

Activate the following Assembly/Accountability Cardreaders upon the order for Assembly/Accountability:

☐	☐	OSC - Operational Support Center
☐	☐	TSC - Technical Support Center
☐	☐	AOSC - Alternate OSC

Alert Security that assembly has been ordered and dispatch a Personnel Accountability Representative to:

☐	☐	OSC - Operational Support Center
☐	☐	AOSC - Alternate OSC

NOTE: The TSC Security Advisor or the officer assigned as the TSC Access Control Officer (ACO) shall prepare the Personnel Accountability Report for the TSC if the TSC is activated.

☐	☐	Upon activation of Assembly and Accountability Cardreaders, notify the Personnel Accountability Representatives (PARs) at the OSC, AOSC and TSC.
☐	☐	Ensure notifications are made in the Protected Area/Owner Controlled Area (OCA) as appropriate.
☐	☐	Ensure other MSFs are prepared to receive or request Personnel Accountability Reports from Personnel Accountability Representatives.
☐	☐	Notify PARs when Zone Roll Call Report is initiated.
☐	☐	Determine last known location of personnel not accounted for as directed by Security Shift Supervisor or Response Force Leader.
☐	☐	Activate the Auxiliary Control Terminal (ACT) and Alarm Printer.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

PROTECTED AREA ASSEMBLY AND ACCOUNTABILITY

PERSONNEL ACCOUNTABILITY REPRESENTATIVE DISPATCHED TO OSC

Completed	N/A	
☐		Report to OSC as rapidly as possible.
☐		Ensure all Assembly/Accountability Cardreaders are functional.
☐		Ensure all personnel card read through the appropriate Assembly/Accountability Cardreader when entering the Assembly Area.
☐	☐	If Cardreaders are inoperable (for example, no green light) complete Security Personnel Accountability Report.
☐	☐	When directed by SAS, log personnel into the Assembly Area using the Security Personnel Accountability Report Forms (see Attachment 1).
☐	☐	Call the Personnel Accountability Report into the pre-designated location.
☐	☐	Hand deliver the Report to SAS if it is more efficient and contamination is not present.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

PROTECTED AREA ASSEMBLY AND ACCOUNTABILITY

PERSONNEL ACCOUNTABILITY REPRESENTATIVE DISPATCHED TO AOSC

Completed	N/A	
❑		Report to AOSC designated assembly area as rapidly as possible.
❑		Ensure all Assembly/Accountability Cardreaders are functional.
❑		Ensure all personnel card read through the appropriate Assembly/Accountability Cardreader when entering the Assembly Area.
❑	❑	Upon direction of the OSC coordinator, instruct personnel at the AOSC to exit the Protected Area immediately.
❑	❑	If Assembly/Accountability Cardreaders are inoperable (for example, no green light) complete Security Personnel Accountability Report.
❑	❑	Appoint personnel to assist in accounting for personnel. Use supervisors and work leaders whenever possible.
❑	❑	When directed by SAS, log personnel into the Assembly Area using the Security Personnel Accountability Report Forms (see Attachment 1)
❑	❑	Call the Personnel Accountability Report into the pre-designated location.
❑	❑	Hand deliver the Report to SAS if it more efficient and contamination is not present.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

PROTECTED AREA ASSEMBLY AND ACCOUNTABILITY

MEMBER OF SECURITY FORCE ASSIGNED TO SAS

Completed	N/A	

NOTE: Other areas may be designated by the Security Shift Supervisor, RFL, or SAS Operator for receiving Personnel Accountability Reports.

☐	☐	Prepare work area in the SAS for receiving Personnel Accountability Reports.
☐	☐	Reconcile Personnel Accountability Reports with the listing of personnel in the affected zone(s) until all personnel are accounted for or declared missing.
☐	☐	When directed by Security Shift Supervisor, request Personnel Accountability Reports from assembly areas.

NOTE: This will allow access to buildings for personnel responding to the EOF or other assembly areas.

☐	☐	Open doors to GTOC, EF1, and the NOC through the Owner Controlled Area Access Control System.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

EMERGENCY RESPONSE FACILITIES

OSC SECURITY COORDINATOR

Completed	N/A	
☐		If Assembly/Accountability is still in progress, ensure all personnel use the Assembly/Accountability Cardreaders when entering/exiting the Assembly Areas.
☐	☐	If Assembly/Accountability Cardreaders are inoperable, complete Security Personnel Accountability Report forms (see Attachment 1).
☐	☐	Assign MSF as escorts to in-plant teams (Fire Brigade, RET), as requested.
☐	☐	Advise SAS on dispatch of teams and who is assigned as escorts.
☐	☐	Assist in coordinating activities between Security and the OSC.
☐	☐	Log personnel into Assembly Area when directed by SAS and call the PAR into the pre-designated location.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

EMERGENCY RESPONSE FACILITIES

TSC SECURITY ADVISOR

Completed	N/A	
❑		Consult with Radiation Protection Advisor (RPA), as necessary, concerning potential radiological hazards.
❑	❑	Communicate to SAS hazardous radiological conditions in areas of security response, as necessary.
❑		Contact SAS for an update on the emergency and ascertain Security requirements.
❑		Ascertain from the Emergency Director (10 minutes after the start of Assembly or Evacuation) the names and keycard numbers of personnel authorized to remain in the affected area.
❑		Report the names and keycard numbers of those authorized to remain in the affected areas to SAS.
❑		Keep Emergency Director informed concerning Personnel Accountability status.

Assist Emergency Director with Security matters as necessary, to include:

❑	❑	Ensure adequate **MSF** is available for the emergency.
❑	❑	Maintain access control and personnel accountability for the Protected and Vital Areas.
❑	❑	Verify Security-related emergencies and/or escorts.
❑	❑	Provide the Emergency Director with necessary information concerning Security and personnel accountability, as necessary.
❑	❑	Provide/approve access into the Protected Area for escorted personnel.
❑	❑	If the EOF **is** activated, notify the EOF Security Advisor, as needed.
❑	❑	If the EOF is **not** activated, notify the Manager Nuclear Security.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

EMERGENCY RESPONSE FACILITIES

TSC ASSEMBLY/ACCOUNTABILITY OFFICER

Completed	N/A	
❑		Ensure all Assembly/Accountability Cardreaders are functional.
❑		Ensure all personnel use the Assembly/Accountability Cardreaders when entering the Assembly Area.
❑	❑	Control access of personnel to the TSC.
❑	❑	Assist TSC Security Advisor, as necessary.

If Assembly/Accountability Cardreaders are inoperable (for example, no green light):

❑	❑	Complete the Security Personnel Accountability Report forms (see Attachment 1).
❑	❑	When determined by the SAS, log personnel into the Assembly Area using the Security Personnel Accountability Report forms (see Attachment 1).

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

EMERGENCY RESPONSE FACILITIES

EOF SECURITY ADVISOR

Completed	N/A	
❑		Contact the SAS operator for information required on the Emergency and Security Requirements.
❑		Verify adequate Main Security Force is available for emergency (TSC, EOF, OSC, JPIC, etc.)
❑		Maintain access control to the Owner Controlled Area (OCA)
❑	❑	Consult with the Radiation Protection Coordinator, as necessary, concerning the issuance of dosimetry to Security Force personnel in the OCA.
❑	❑	Assist the Emergency Officer with entry authorizations for essential personnel and materials.
❑	❑	Obtain entry clearance through roadblocks for escorted personnel and material required at the site.
❑	❑	Provide MSF escorts, as necessary, for materials or people from offsite.
❑	❑	Verify Security related incidents during the emergency.
❑		Control access to the EOF.
❑	❑	Update the Manager Nuclear Security/designee on the emergency and Security requirements.

Performed By: _____ / _____ Date: _____
Print Sign

Forward completed form to Supervisor - RERP, 164 NOC.

SAFE SHELTER ACCESS

During announced tornado warnings personnel located in the Owner Controlled Area will be taking shelter at Fermi 1 and at the NOC. In order for all personnel and visitors to have unimpeded access for sheltering purposes it is necessary to unlock the perimeter doors of each building when a tornado warning is anticipated or announced.

The following doors are required to be unlocked when a Tornado Warning is anticipated or announced.

NOC DOORS	FERMI 1 DOORS
NOC SHIP/RECEIVE CR DOOR	FERMI 1 OSB W LOBBY CR DOOR
NOC NE LOBBY CR DOORS	FERMI 1 N TURB BLDG CR DOOR
NOC SE LOBBY CR DOORS	FERMI 1 E TURB BLDG CR DOOR
NOC NW LOBBY CR DOORS	FERMI 1 W TURB BLDG CR DOOR

Steps to Unlock and Lock Doors

From the OCA Access Control/Fire Detection System computer at the SAS ACO, perform the following:

1. Click the *Command* icon.
2. In the *Select Type* pull down menu, select *Reader Group(s).*
3. Press the *Find* button.
4. Find and select the **Severe Weather* reader group.
5. In the *Select a Command* pull down menu, find and select the *Unlock Door* command.
6. Click *OK.*

All of the doors listed above will then unlock and remain unlocked until you execute a command to lock them or the system software executes a timed command to lock them.

SAFE SHELTER ACCESS

NOTE: If the sheltering in cleared between 0600 – 1900 hours on Monday through Friday, the affected doors should remain unlocked. The doors should be re-locked on holidays, weekends, or times outside the parameters above.

When the tornado warning or sheltering is cleared, the affected doors may be locked by performing the following:

1. Click the *Command* icon.
2. In the *Select Type* pull down menu, select *Reader Group(s).*
3. Press the *Find* button.
4. Find and select the **Severe Weather* reader group.
5. In the *Select a Command* pull down menu, find and select the *Lock Door* command.
6. Click *OK.*

SECURITY ACCOUNTABILITY ANNOUNCEMENT

When directed by the Emergency Director due to the failure of the plant Hi-Com System, members of the Security Force shall make the following announcement:

> **Attention all personnel. An _____ (alert or higher emergency classification if applicable) has been declared by the Emergency Director. All personnel within the protected area report to your assigned assembly area immediately.**

The announcement shall be made at various locations on all floors of the plant and all other facilities and buildings within the protected area.

END