Transmittal List

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32	ER1.1 (035/C00) - CLASSIFICATION OF EMERGENCIES	CPY0032	00/00/00	00/00/00		UPDATE PER CHG INSTR
170	SSER (098) - SORC-STATION EMERGENCY RESPONSE MANUAL	CPY0020	00/00/00	00/00/00		UPDATE PER CHG INSTR

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R00220

CHANGE INSTRUCTIONS

EMERGENCY RESPONSE MANUAL

(SSER)

REMOVE	INSERT	
Cover	Cover	Rev. 98
Table of Contents	Table of Contents	Rev. 98
List of Effective Pages	List of Effective Pages	Rev. 98
PROCEDURES		
ER 1.1 (entire)	ER 1.1, Classification of Emergencies	Rev. 35

RMD Controlled Copy C165

PROGRAM MANUAL

Emergency Response Manual

SORC Review: 03-024 Date: 5-21-03

Effective Date: 6-4-03

SSER
Rev. 98

Manual Owner:
S. Perkins-Grew

EMERGENCY RESPONSE MANUAL
(SSER)

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SEABROOK STATION

ADMINISTRATIVE PROCEDURE

Classification of Emergencies

ER 1.1

Rev. 35

SORC Review: 03-024 Date: 5-21-03

Effective Date: 6-4-03

EXPIRATION DATE 6-4-05

Procedure Owner:
S. Perkins-Grew

Contents and Revision Status

1.0 OBJECTIVES

This procedure specifies the classification of emergencies in accordance with the Seabrook Station Radiological Emergency Plan (SSREP).

2.0 RESPONSIBILITIES

2.1 Unit Supervisor

Responsible for assuming the role of Short Term Emergency Director (STED) until the Shift Manager has reported to the Control Room.

2.2 Shift Manager

Responsible for classifying observed station conditions in accordance with the emergency classification system specified in this procedure and reclassifying the emergency as necessary until relieved by the Site Emergency Director.

2.3 Site Emergency Director

Responsible for analyzing changing station conditions and reclassifying the emergency classification in accordance with this procedure.

3.0 PRECAUTIONS

1. When two or more critical safety functions (CSFs) or emergency conditions exist and different emergency classifications result, the higher emergency classification will be used.

2. Final emergency classifications are contingent upon the evaluation and discretion of the Shift Manager or the Site Emergency Director. The Shift Manager or Site Emergency Director may make an emergency classification based on clear indications that the event trajectory meets the intent of the initiating condition, although the associated emergency action levels have not yet been met or exceeded.

3. Critical safety function evaluation for emergency classification purposes should be performed in accordance with the guidance contained in the Emergency Response Procedures User's Guide of the Operations Management Manual (OPMM).

4. Critical safety function status tree (CSFST) color displays must be sustained indications of continuous conditions. Conditions indicated by CSFST displays must be evaluated and verified using hardwired information before they are used as bases for emergency classifications or for protective action recommendations.

5. Emergency Action Levels (EALs) pertaining to specific initiating conditions are described in Figure 1, Miscellaneous Emergency Conditions and Emergency Action Levels.

6. When making classifications based upon lights, alarms and other indications, caution must be exercised in the review of these indications to ensure the validity of the information.

7. An emergency classification made by the Short Term Emergency Director is deemed to have been declared when the emergency is announced over the plant paging (Gai-Tronics) system. An emergency reclassification made by the Site Emergency Director (SED) is deemed to have been declared when the SED announces the reclassification in the Control Room or in the Technical Support Center.

8. Once the initial emergency declaration is made the associated ER 1.2 checklist for the Short Term Emergency Director (ER 1.2A, B, C or D) shall be implemented at least through to the completion of state notifications prior to terminating the emergency classification or reclassifying the emergency. If the emergency classification is terminated or if reclassification of the emergency is made after completion of the state notifications, the initial NRC notification must still be made within one hour of the initial classification; however, the initial NRC notification will be for the termination of the emergency or for the emergency classification currently in effect (i.e., the reclassification).

9. If the emergency-related indications completely clear before a declaration of an emergency classification level has been made, then no emergency classification is required. The Shift Manager shall notify the Emergency News Manager within one hour of the termination of the emergency-related indications that emergency-related indications briefly existed, but cleared prior to the declaration of an emergency classification. The Emergency News Manager will initiate state notifications per good neighbor notification procedures. The event shall be reported to the NRC in accordance with 10 CFR 50.72 and 50.73 per the Regulatory Compliance Manual.

10. If emergency-related indications are received and later cleared, and after the fact it is determined that an emergency classification was warranted but not made, then no emergency classification is required. The Shift Manager shall notify the Emergency News Manager within one hour of discovery that an emergency classification was warranted but not declared and that emergency-related indications no longer exist. The Emergency News Manager will initiate state notifications per good neighbor notification procedures. The event shall be reported to the NRC in accordance with 10 CFR 50.72 and 50.73 per the Regulatory Compliance Manual.

11. If emergency-related indications are received and reduce in severity, such that the emergency classification went from an earlier higher level to a current lower level, the current lower level emergency should be declared. State and NRC notifications shall be made in accordance with Procedure ER 1.2.

12. If emergency conditions are initially classified as an Alert or higher, and then subsequently reclassified to an Unusual Event, all ERO members should continue to report to their facilities. Although activation of the Technical Support Center, Operational Support Center, and Emergency Operations Facility are not required, the ERO staff will be available to assist with event recovery efforts, interface with State emergency response personnel, and respond to information requests from the media, elected officials and industry organizations.

13. At the discretion of the Shift Manager, the evaluation of EALs 12a, 12b, 12d and 12e may take place after an initial classification is made based on other plant or radiological conditions. If the results of this evaluation indicate that an EAL for a higher emergency classification has been exceeded, then reclassify the emergency and again implement procedure ER 1.2, Emergency Plan Activation.

14. When the EOF is activated, dose projection results used for classifying emergencies based on the 12 series EALs will normally originate in the EOF. The EOF will communicate the results to the Site Emergency Director for classification of the emergency. If dose projection results are obtained from another source (e.g., the TSC), the Site Emergency Director shall direct the Health Physics Coordinator to obtain the concurrence of the EOF Coordinator before reclassifying the emergency based on the 12 series EALs. (Protected: Ref. 6.12)

4.0 PREREQUISITES

A CSF has been challenged and/or one of the miscellaneous emergency conditions has occurred.

5.0 ACTIONS

Shift Manager/Site Emergency Director

5.1 Emergency Classification

1. If there has not been a valid reactor trip or safety injection signal(s), proceed to Step 5.

2. If there has been a valid reactor trip or safety injection signal(s), determine whether any of the following critical safety functions (CSFs) are challenged:

   S. Subcriticality
   C. Core cooling
   H. Heat sink
   P. RCS integrity
   Z. Containment integrity

3. Identify the color-coded event for the challenged CSFs.

4. Circle the letter and color of each CSF event or combination of events identified in Step 3 on form ER 1.1A, Emergency Classification Flow Chart.

5. Review and then circle the miscellaneous emergency conditions and combinations of miscellaneous emergency conditions that correspond to actual station conditions on form ER 1.1A.

6. Circle any combinations of miscellaneous emergency conditions and critical safety functions that correspond to actual station conditions on form ER 1.1A.

7. If emergency classification is being considered under any of the High Radiation EALs, which involve a release, (12a, 12b, 12d or 12e), implement offsite dose assessment using procedure ER 5.7, Offsite Dose Projection System (ODPS). A radiological release that requires dose assessment utilizing the Offsite Dose Projection System (ODPS) is defined as follows:

    a. A Wide Range Gas Monitor (WRGM) high alarm (RM-6528-4), or

    b. A Main Steam Line Monitor high alarm with an OPEN atmospheric steam dump valve (ASDV) or safety relief valve (SRV) on the affected line, or

    c. The results of effluent analysis or site boundary monitoring indicate a dose rate greater than or equal to 0.06 mRem/hr.

    In the event of a radiological release via the turbine-driven EFW pump exhaust, dispatch a monitoring team to the downwind site boundary location to obtain a site boundary dose rate and use the Unmonitored Release Path of ODPS.

8. Identify the most severe emergency classification that corresponds to the events circled on form ER 1.1A. Refer to the corresponding Figure 1 initiating condition to complete classification.

9. If an emergency classification is warranted, immediately implement Station Emergency Response Procedure ER 1.2, Emergency Plan Activation.

NOTE

This action is not applicable after the Technical Support Center is activated at an Alert or higher classification.

6.0 REFERENCES

1. Seabrook Station Radiological Emergency Plan
2. ER 1.2, Emergency Plan Activation
3. ER 5.7, Offsite Dose Projection System
4. ECA-1.1, Loss of Emergency Coolant Recirculation
5. ECA-1.2, LOCA Outside of Containment
6. E-1, Loss of Reactor or Secondary Coolant
7. E-2, Faulted Steam Generator Isolation
8. E-3, Steam Generator Tube Rupture
9. ES-0.1, Reactor Trip Response
10. ES-1.1, SI Termination
11. OS1000.11, Post-Trip to Hot Standby
12. SEP #20000030, Response to A/R 00004326 from CR #00-1882

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels

Initiating Condition for UNUSUAL EVENT

6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes.

EMERGENCY ACTION LEVELS

BUSES E5 AND E6 ARE NOT POWERED FROM AN OFFSITE SOURCE FOR GREATER THAN 15 MINUTES.

NOTE The emergency action level does not apply to testing situations where either Bus E5 or E6 is being powered by its respective diesel generator.

IF condition 6a (above) exists concurrently with condition 7a (below), an ALERT shall be declared.

7a. Primary to secondary leakage greater than 500 gallons per day from any steam generator or steam generator specific activity greater than 0.1 μCi/cc dose equivalent I-131.

EMERGENCY ACTION LEVELS

1.	ANY INDICATION OF PRIMARY TO SECONDARY LEAKAGE EXCEEDING 500 GALLONS PER DAY FROM ANY STEAM GENERATOR
	OR
2.	ANALYSIS OF A BLOWDOWN LIQUID SAMPLE BY THE CHEMISTRY DEPARTMENT INDICATES ACTIVITY GREATER THAN 0.1 μCi/cc DOSE EQUIVALENT I-131.

IF condition 6a (above) exists concurrently with condition 7b (below), a SITE AREA EMERGENCY shall be declared.

7b. Steam Generator Tube Rupture (E-3)

EMERGENCY ACTION LEVELS

INITIATION OF EMERGENCY PROCEDURE E-3, STEAM GENERATOR TUBE RUPTURE.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

6b. Bus E5 AND E6 cannot be powered from the diesels.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1.	BOTH INDICATING LIGHTS
MCB-HF	
UL-19	"A" DIESEL NOT AVAILABLE
UL-20	"B" DIESEL NOT AVAILABLE

OR

2.	BOTH VAS ALARMS
F POINT	
F6587	DG TRAIN A EMERG PWR INOP
F6637	DG TRAIN B EMERG PWR INOP

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

6c. Bus E5 AND E6 cannot be powered from the diesels or an offsite source.

EMERGENCY ACTION LEVELS

1. BOTH HARDWIRE ALARMS	
MCB-HF	
UA-54	4160V BUS 5 VOLTS LO
UA-55	4160V BUS 6 VOLTS LO
OR	
2. BOTH VAS ALARMS	
F POINT	MESSAGE
F7300	BUS E5 LOSS OF POWER
F7310	BUS E6 LOSS OF POWER

AND

3. BOTH INDICATING LIGHTS	
MCB-HF	
UL-19	"A" DIESEL NOT AVAILABLE
UL-20	"B" DIESEL NOT AVAILABLE
OR	
4. BOTH VAS ALARMS	
F POINT	
F6587	DG TRAIN A EMERG PWR INOP
F6637	DG TRAIN B EMERG PWR INOP

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

6d. Loss of all vital DC Busses 11A, 11B, 11C and 11D.

EMERGENCY ACTION LEVELS

1. ALL THE FOLLOWING VAS ALARMS		
D6094	DC BUS 11A	VOLT LO-LO
D6095	DC BUS 11C	VOLT LO-LO
D6096	DC BUS 11B	VOLT LO-LO
D6097	DC BUS 11D	VOLT LO-LO

OR

2. ALL OF THE FOLLOWING HARDWIRED ALARMS:	
UA-54	DC BUS 11A VOLT LO DC BUS 11C VOLT LO
UA-55	DC BUS 11B VOLT LO DC BUS 11D VOLT LO

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. BOTH HARDWIRE ALARMS

   MCB-HF

UA-54	4160V BUS 5 VOLTS LO
UA-55	4160V BUS 6 VOLTS LO

   NOTE: IF ONE OF THESE HAS CLEARED (LIGHT OUT), A BUS IS REENERGIZED

AND

2. NO ALARM HAS BEEN CLEARED WITHIN FIFTEEN MINUTES.

IF condition 6e exists concurrently with an H red or Z orange, a GENERAL EMERGENCY shall be declared.

IF conditions 6e and 6f exist concurrently, refer to condition 6e AND 6f.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

6f. Loss of vital DC Busses 11A, 11B, 11C and 11D for greater than 15 minutes.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. ALL OF THE FOLLOWING HARDWIRE ALARMS:

UA-54	DC BUS 11A	VOLT LO
	DC BUS 11C	VOLT LO
UA-55	DC BUS 11B	VOLT LO
	DC BUS 11D	VOLT LO

OR

2. ALL OF THE FOLLOWING VAS ALARMS:

D6094	DC BUS 11A	VOLT LO-LO
D6095	DC BUS 11C	VOLT LO-LO
D6096	DC BUS 11B	VOLT LO-LO
D6097	DC BUS 11D	VOLT LO-LO

AND

3. NO ALARM HAS BEEN CLEARED WITHIN FIFTEEN MINUTES.

IF conditions 6f and 6e exist concurrently, refer to condition 6e AND 6f.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for GENERAL EMERGENCY

6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.

AND

6f. Loss of all vital DC busses 11A, 11B, 11C, and 11D for greater than 15 minutes.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

AN EVENT HAS OCCURRED THAT INDICATES A LOSS OF BUS E5 AND BUS E6, AND A LOSS OF ALL VITAL DC BUSSES 11A, 11B, 11C, 11D FOR GREATER THAN 15 MINUTES. THIS MAY BE INDICATED BY A LOSS OF ALL PUMPS AND VALVE LIGHTS, STATUS LIGHTS, HARDWIRE INDICATIONS, ETC.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT if Condition 6a also exists

7a. Primary to secondary leakage greater than 500 gallons per day from any steam generator or steam generator specific activity greater than 0.1 µCi/cc dose equivalent I-131.

AND

6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. ANY INDICATION OF PRIMARY TO SECONDARY LEAKAGE EXCEEDING 500 GALLONS PER DAY FROM ANY STEAM GENERATOR

OR

2. ANALYSIS OF A BLOWDOWN LIQUID SAMPLE BY THE CHEMISTRY DEPARTMENT INDICATES ACTIVITY GREATER THAN 0.1 µCi/cc DOSE EQUIVALENT I-131

AND

3. BUSES E5 AND E6 ARE NOT POWERED FROM AN OFFSITE SOURCE FOR GREATER THAN 15 MINUTES.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

7b. Steam Generator Tube Rupture

NOTE
This Initiating Condition does not apply in Modes 4, 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. INITIATION OF EMERGENCY PROCEDURE E-3, STEAM GENERATOR TUBE RUPTURE.

OR

2. INITIATION OF ABNORMAL PROCEDURE OS1227.02, STEAM GENERATOR TUBE LEAK.
AND
3. A SECOND CHARGING PUMP HAS BEEN STARTED.

IF condition 7b (above) exists concurrently with condition 6a (below), a SITE AREA EMERGENCY shall be declared.

6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes.

EMERGENCY ACTION LEVELS

BUSES E5 AND E6 ARE NOT POWERED FROM AN OFFSITE SOURCE FOR GREATER THAN 15 MINUTES.

IF condition 7b (above) exists concurrently with condition 8b (below), a SITE AREA EMERGENCY shall be declared.

8b. Reactor coolant gross activity greater than or equal to 3,000 μCi/cc or dose equivalent I-131 activity greater than or equal to 300 μCi/cc.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT (continued)

EMERGENCY ACTION LEVELS

1.	REACTOR COOLANT GROSS ACTIVITY IS GREATER THAN OR EQUAL TO 3000 µCi/cc AS DETERMINED BY CHEMISTRY DEPARTMENT PERSONNEL PER CS0925.01 OR CS0925.16

OR

2.	REACTOR COOLANT DOSE EQUIVALENT I-131 IS GREATER THAN OR EQUAL TO 300 µCi/cc AS DETERMINED BY CHEMISTRY DEPARTMENT PERSONNEL PER CS0925.01 OR CS0925.16.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

8a. Reactor coolant specific activity greater than Technical Specification limits.

NOTE

This Initiating Condition does not apply in Modes 3 (with T_{avg} less than 500°F) 4, 5 and 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. CHEMISTRY DEPARTMENT SAMPLING RESULTS INDICATE THAT THE SPECIFIC ACTIVITY OF THE REACTOR COOLANT IS GREATER THAN 1 μCi/gm DOSE EQUIVALENT IODINE I-131 FOR MORE THAN 48 HOURS DURING ONE CONTINUOUS TIME INTERVAL

OR

2. CHEMISTRY DEPARTMENT SAMPLING RESULTS INDICATE THAT THE DOSE EQUIVALENT IODINE I-131 PRIMARY COOLANT SPECIFIC ACTIVITY IS EXCEEDING THE LIMIT LINE SHOWN IN TECHNICAL SPECIFICATION FIGURE 3.4-1

OR

3. CHEMISTRY DEPARTMENT SAMPLING RESULTS INDICATE THAT THE SPECIFIC ACTIVITY OF THE REACTOR COOLANT IS GREATER THAN $100/\overline{E}$ μCi/gm.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

8b. Reactor coolant gross activity greater than or equal to 3,000 µCi/cc or dose equivalent I-131 activity greater than or equal to 300 µCi/cc.

EMERGENCY ACTION LEVELS

1.	REACTOR COOLANT GROSS ACTIVITY IS GREATER THAN OR EQUAL TO 3000 µCi/cc AS DETERMINED BY CHEMISTRY DEPARTMENT PERSONNEL PER CS0925.01 OR CS0925.16

OR

2.	REACTOR COOLANT DOSE EQUIVALENT I-131 IS GREATER THAN OR EQUAL TO 300 µCi/cc AS DETERMINED BY CHEMISTRY DEPARTMENT PERSONNEL PER CS0925.01 OR CS0925.16.

IF condition 8b (above) exists concurrently with condition 7b (below), a SITE AREA EMERGENCY shall be declared.

7b. Steam Generator Tube Rupture (E-3)

NOTE

This Initiating Condition does not apply in Modes 4, 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

INITIATION OF EMERGENCY PROCEDURE E-3, STEAM GENERATOR TUBE RUPTURE.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

8c. Containment post-LOCA monitors reading greater than or equal to 1,000 R/hr.

EMERGENCY ACTION LEVELS

CONTAINMENT DOSE RATES ARE GREATER THAN OR EQUAL TO 1,000 R/HR AS INDICATED BY BOTH RM-6576A AND RM-6576B.

NOTE
If one channel is inoperable, the reading on the operable channel should be verified by a rise in or off-scale high readings on other containment monitors or personnel hatch monitor.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for GENERAL EMERGENCY

8d. Containment post-LOCA monitors reading greater than or equal to 4,000 R/hr.

EMERGENCY ACTION LEVELS

CONTAINMENT DOSE RATES ARE GREATER THAN OR EQUAL TO 4,000 R/HR AS INDICATED BY BOTH RM-6576A AND RM-6576B.

NOTE
If one channel is inoperable, the reading on the operable channel should be verified by a rise in or off-scale high readings on other containment monitors or personnel hatch monitor.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

9a. Unplanned loss of most UA panel hardwired annunciator alarms for greater than 15 minutes.

NOTE

This Initiating Condition does not apply in Mode 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. MOST OR ALL UA PANEL HARDWIRED ANNUNCIATOR ALARMS HAVE BEEN LOST FOR GREATER THAN 15 MINUTES

AND

2. COMPENSATORY INDICATIONS ARE AVAILABLE (E.G., MAIN CONTROL BOARD INDICATIONS, MPCS, VAS, SPDS, ETC.)

AND

3. THE LOSS OF THE UA PANEL HARDWIRED ANNUNCIATOR ALARMS REQUIRES INCREASED SURVEILLANCE TO SAFELY OPERATE THE STATION

AND

4. THE LOSS OF THE UA PANEL HARDWIRED ANNUNCIATOR ALARMS DID NOT RESULT FROM A PLANNED ACTION.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

9b. Failure of Control Room RDMS panels

EMERGENCY ACTION LEVELS

1. CP-180A INDICATES BLANK OR ERRONEOUS LED DISPLAYS

AND

2. CP-180B INDICATES BLANK OR ERRONEOUS LED DISPLAYS

AND

3. CP-295 RDMS TERMINAL INDICATES BLANK OR ERRONEOUS CRT DISPLAY.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

9c. Loss of automatic and manual SPDS.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. LOSS OF A COMPUTER SPDS FUNCTION (e.g., the C tree)

AND

2. LOSS OF BOTH TRAINS OF HARDWIRED INDICATIONS FOR AN SPDS FUNCTION

AND

3. THE LOSS OF THE SPDS FUNCTION DID NOT RESULT FROM A PLANNED ACTION.

NOTE

This Initiating Condition does not apply when the Pressurized Thermal Shock (P) status tree is unreliable due to wide range T_{cold} being unavailable (Ref. UFSAR, Chapter 7, Appendix 7A, deviation #7 to Regulatory Guide 1.97).

This exception assumes that plant conditions support using saturation temperature for Steam Generator (S/G) pressure as an alternate indication. The use of S/G parameters is acceptable only when

- the S/G being used is not faulted, and
- the S/G is "coupled" to the RCS (e.g., S/G pressure is less than or equal to RCS pressure).

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

9d. Unplanned loss of most UA panel hardwired annunciator alarms for greater than 15 minutes with a transient in progress OR without compensatory measures.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. MOST OR ALL UA PANEL HARDWIRED ANNUNCIATOR ALARMS HAVE BEEN LOST FOR GREATER THAN 15 MINUTES

AND

2. THE LOSS OF THE UA PANEL HARDWIRED ANNUNCIATOR ALARMS REQUIRES INCREASED SURVEILLANCES TO SAFELY OPERATE THE STATION

AND

3. THE LOSS OF THE UA PANEL HARDWIRED ANNUNCIATOR ALARMS DID NOT RESULT FROM A PLANNED ACTION

AND

4. COMPENSATORY INDICATIONS ARE NOT AVAILABLE (E.G., MAIN CONTROL BOARD INDICATIONS, MPCS, SPDS, VAS, ETC.)

OR

5. A SIGNIFICANT PLANT TRANSIENT IS IN PROGRESS.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

9e. Inability to monitor a significant transient in progress.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. MOST OR ALL UA PANEL HARDWIRED ANNUNCIATOR ALARMS HAVE BEEN LOST

AND

2. COMPENSATORY INDICATIONS ARE NOT AVAILABLE (E.G., MAIN CONTROL BOARD INDICATIONS, MPCS, SPDS, VAS, ETC.)

AND

3. A SIGNIFICANT PLANT TRANSIENT IS IN PROGRESS.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

10a. Loss of all control room communication.

EMERGENCY ACTION LEVELS

COMPLETE LOSS OF ALL THE FOLLOWING CONTROL ROOM COMMUNICATIONS:

a. TELEPHONES, INCLUDING THOSE ON CP-295

AND

b. RADIOS, INCLUDING THE MANCHESTER DISPATCHER

AND

c. GAITRONICS

AND

d. SOUND POWERED PHONES.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

11a. Initiation of shutdown to the cold shutdown condition as required by technical specifications.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. THE TECHNICAL SPECIFICATION IN QUESTION REQUIRES THE STATION TO ULTIMATELY ACHIEVE COLD SHUTDOWN (MODE 5)

AND

2. THE PRIMARY SYSTEM TEMPERATURE IS BEING REDUCED

AND

3. THE TIME REMAINING TO REACH ANY REQUIRED MODE IS LESS THAN OR EQUAL TO ZERO. REFER TO ODI.30 FOR TIME CALCULATION INSTRUCTIONS.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

12a. Site boundary dose rate greater than or equal to 0.06 mRem/hr.

EMERGENCY ACTION LEVELS

1.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATES A PROJECTED TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE) RATE GREATER THAN OR EQUAL TO 0.06 mRem/hr AT THE SITE BOUNDARY

OR

2.	FIELD MONITORING INDICATES A DOSE RATE GREATER THAN OR EQUAL TO 0.06 mRem/hr AT THE SITE BOUNDARY (SEE NOTE 1).

NOTE 1

This value is alternately called the "whole body" dose rate or "deep dose equivalent" rate. It is typically a "closed window" reading.

NOTE 2

Figure 2 provides computer generated assessment points and RDMS channel numbers to be used for dose assessment.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

12b. Site boundary dose rate greater than or equal to 0.6 mRem/hr.

EMERGENCY ACTION LEVELS

1.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATES A PROJECTED TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE) RATE GREATER THAN OR EQUAL TO 0.6 mRem/hr AT THE SITE BOUNDARY

OR

2.	FIELD MONITORING INDICATES A DOSE RATE GREATER THAN OR EQUAL TO 0.6 mRem/hr AT THE SITE BOUNDARY (SEE NOTE 1).

NOTE 1

This value is alternately called the "whole body" dose rate or "deep dose equivalent" rate. It is typically a "closed window" reading.

NOTE 2

Figure 2 provides computer generated assessment points and RDMS channel numbers to be used for dose assessment.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

12c. Significant loss in control of radioactive materials and an increase in radiation monitor(s) by a factor of 1000 or greater.

EMERGENCY ACTION LEVELS

1.	UNEXPECTED INCREASE IN AN AREA RADIATION MONITOR(S) BY A FACTOR OF 1000 OR GREATER

AND

2.	A SIGNIFICANT LOSS IN THE CONTROL OF RADIOACTIVE MATERIALS HAS OCCURRED.

NOTE

To determine a factor of 1000 increase, select the appropriate trend display on the alarming channel(s) to ascertain the rate of increase and approximate background value. If needed, verify the increase by survey or other means to confirm that the increase is a result of a significant loss in control of radioactive material.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

12d. Site boundary dose rate greater than or equal to 50 mRem/hour, or adult thyroid committed dose equivalent rate greater than or equal to 250 mRem/hour.

EMERGENCY ACTION LEVELS

1.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATES A PROJECTED TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE) RATE GREATER THAN OR EQUAL TO 50 mRem/hr AT THE SITE BOUNDARY

OR

2.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATE A PROJECTED ADULT THYROID COMMITTED DOSE EQUIVALENT (CDE) RATE GREATER THAN OR EQUAL TO 250 mRem/hr AT THE SITE BOUNDARY

OR

3.	FIELD MONITORING INDICATES A DOSE RATE GREATER THAN OR EQUAL TO 50 mRem/hr AT THE SITE BOUNDARY (SEE NOTE 1)

OR

4.	FIELD MONITORING RESULTS INDICATE AN ADULT THYROID COMMITTED DOSE EQUIVALENT (CDE) RATE GREATER THAN OR EQUAL TO 250 mRem/hr AT THE SITE BOUNDARY.

NOTE 1

This value is alternately called the "whole body" dose rate or "deep dose equivalent" rate. It is typically a "closed window" reading.

NOTE 2

Figure 2 provides computer generated assessment points and RDMS channel numbers to be used for dose assessment.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for GENERAL EMERGENCY

12e. Site boundary Total Effective Dose Equivalent greater than or equal to 1,000 mRem or Adult Thyroid Committed Dose Equivalent greater than or equal to 5,000 mRem.

EMERGENCY ACTION LEVELS

1.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATES A TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE) OF GREATER THAN OR EQUAL TO 1,000 mRem AT THE SITE BOUNDARY FOR THE ACTUAL OR PROJECTED DURATION OF THE RELEASE

OR

2.	DOSE PROJECTIONS OR EFFLUENT ANALYSIS INDICATES AN ADULT THYROID COMMITTED DOSE EQUIVALENT (CDE) OF GREATER THAN OR EQUAL TO 5,000 mRem AT THE SITE BOUNDARY FOR THE ACTUAL OR PROJECTED DURATION OF THE RELEASE

OR

3.	FIELD MONITORING RESULTS INDICATE A DEEP DOSE EQUIVALENT (DDE) OF GREATER THAN OR EQUAL TO 1,000 mRem AT THE SITE BOUNDARY FOR THE ACTUAL OR PROJECTED DURATION OF THE RELEASE (SEE NOTE 1)

OR

4.	FIELD MONITORING RESULTS INDICATE AN ADULT THYROID COMMITTED DOSE EQUIVALENT (CDE) OF GREATER THAN OR EQUAL TO 5,000 mRem AT THE SITE BOUNDARY FOR THE ACTUAL OR PROJECTED DURATION OF THE RELEASE.

NOTE 1

This value is also called the "whole body" dose. It is typically based on a "closed window" reading.

NOTE 2

Figure 2 provides computer generated assessment points and RDMS channel numbers to be used for dose assessment.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

13a. Fuel handling accident with release of radioactivity.

EMERGENCY ACTION LEVELS

1.	NOTIFICATION OF THE DROPPING, BUMPING, OR OTHERWISE ROUGH HANDLING OF AN IRRADIATED FUEL ASSEMBLY

AND

2.	ANY INDICATION THAT RADIOACTIVITY HAS BEEN RELEASED FROM THE IRRADIATED FUEL ASSEMBLY. THESE INDICATIONS MAY INCLUDE: • ALARMS OR ELEVATED READINGS ON AREA RDMS MONITORS - CONTAINMENT MONITORS: RM-6535A or RM-6535B - FUEL STORAGE BLDG MONITORS: RM-6549 OR RM-6518 • ALARMS OR ELEVATED READINGS ON PORTABLE RADIATION MONITORS • ALARMS OR ELEVATED READINGS ON AIR MONITORS

AND

3.	A VISUAL ASSESSMENT OF THE IRRADIATED FUEL ASSEMBLY INDICATES NO MAJOR DAMAGE OR DEFORMATION (E.G., NO CRUSHED OR BENT FUEL RODS, ALL RODS REMAIN WITHIN THE ASSEMBLY FRAME, ETC.)
	OR
4.	A VISUAL ASSESSMENT OF THE EXTENT OF DAMAGE TO THE IRRADIATED FUEL ASSEMBLY CANNOT OR HAS NOT BEEN MADE.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

13b. Major damage to irradiated fuel with radiation release or loss of water in spent fuel pool or reactor cavity and irradiated fuel present.

EMERGENCY ACTION LEVELS

1. NOTIFICATION OF THE DROPPING, BUMPING, OR OTHERWISE ROUGH HANDLING OF AN IRRADIATED FUEL ASSEMBLY

AND

2. ANY INDICATION THAT RADIOACTIVITY HAS BEEN RELEASED FROM THE IRRADIATED FUEL ASSEMBLY. THESE INDICATIONS MAY INCLUDE:

- ALARMS OR ELEVATED READINGS ON AREA RDMS MONITORS
  - CONTAINMENT MONITORS: RM-6535A or RM-6535B
  - FUEL STORAGE BLDG MONITORS: RM-6549 OR RM-6518
- ALARMS OR ELEVATED READINGS ON PORTABLE RADIATION MONITORS
- ALARMS OR ELEVATED READINGS ON AIR MONITORS

AND

3. A VISUAL ASSESSMENT OF THE IRRADIATED FUEL ASSEMBLY INDICATES MAJOR DEFORMATION OR DAMAGE (E.G., CRUSHED OR BENT FUEL RODS, ALL RODS NOT WITHIN THE ASSEMBLY FRAME, ETC.)

OR

(Continued on next page)

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

4.	a)	THE FOLLOWING VAS ALARM: D5198 SPENT FUEL POOL LEVEL LOW AND b) THE INABILITY TO MAINTAIN LEVEL AS INDICATED BY AN UNCONTROLLED DECREASING LEVEL READ ON SF-LI-2607 (MCB-BR) AND c) IRRADIATED FUEL IS PRESENT IN THE POOL AND UNCOVERY IS IMMINENT OR HAS OCCURRED

OR

5.	a)	THE FOLLOWING VAS ALARM: B7062 RX REFUEL CAVITY LEVEL LOW AND b) THE INABILITY TO MAINTAIN LEVEL AS INDICATED BY AN UNCONTROLLED DECREASING LEVEL READ ON SF-LI-2629 (MCB-BF) AND c) IRRADIATED FUEL IS PRESENT IN THE CAVITY AND UNCOVERY IS IMMINENT OR HAS OCCURRED.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

14a. Abnormal reactor trip or safety injection.

NOTE
This Initiating Condition does not apply in Modes 4, 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1.	ENTRY INTO PROCEDURE ES-0.1, REACTOR TRIP RESPONSE, WITHOUT TRANSITIONING TO PROCEDURE OS1000.11, POST-TRIP TO HOT STANDBY

OR

2.	ENTRY INTO PROCEDURE ES-1.1, SI TERMINATION, WITHOUT TRANSITIONING TO PROCEDURE OS1000.11, POST-TRIP TO HOT STANDBY

OR

3.	TRANSITIONING BACK INTO PROCEDURE E-0, REACTOR TRIP OR SAFETY INJECTION, FROM PROCEDURE FR-S.1, RESPONSE TO NUCLEAR POWER GENERATION/ATWS.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

15a. Reactor coolant system leakage.

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. UNIDENTIFIED OR PRESSURE BOUNDARY LEAKAGE GREATER THAN 10 GPM

OR

2. IDENTIFIED LEAKAGE GREATER THAN 25 GPM.

NOTE

Emergency Action Level number 2 includes Reactor Coolant System (RCS) leakage to a steam generator (i.e., primary to secondary leakage).

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

15b. Faulted Steam Generator Isolation (E-2).

NOTE

This Initiating Condition does not apply in Modes 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

INITIATION OF EMERGENCY PROCEDURE E-2, FAULTED STEAM GENERATOR ISOLATION.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

15c. Reactor coolant leak rate greater than 50 gpm.

NOTE

This Initiating Condition does not apply when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

REACTOR COOLANT LEAK RATE GREATER THAN 50 GPM.

NOTE

This Initiating Condition does not apply to Reactor Coolant System (RCS) leakage to a steam generator (i.e., primary to secondary leakage). Conditions where RCS leakage is to a steam generator should be evaluated against Emergency Action Levels for Initiating Conditions 7a or 7b.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

15d. Loss of Reactor Coolant with ECCS required.

NOTE

This Initiating Condition does not apply in Modes 4, 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. INITIATION OF EMERGENCY PROCEDURE E-1, LOSS OF REACTOR OR SECONDARY COOLANT

AND

2. RCS SUBCOOLING BASED ON CORE EXIT THERMOCOUPLES IS LESS THAN 40°F

OR

3. PRESSURIZER LEVEL IS LESS THAN OR EQUAL TO 5% (35% IF CONTAINMENT PRESSURE IS GREATER THAN 4 PSIG).

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

15e. LOCA outside of containment

NOTE

This Initiating Condition does not apply when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. INITIATION OF EMERGENCY PROCEDURE ECA-1.2, LOCA OUTSIDE OF CONTAINMENT

OR

2. RCS PRESSURE IS DECREASING UNCONTROLLABLY

AND

3. ANY COMBINATION OF PLANT PARAMETERS THAT INDICATE THAT THE RCS MASS IS BEING LOST OUTSIDE THE CONTAINMENT BOUNDARY.

NOTE

If this condition exists concurrently with a C orange, declare a GENERAL EMERGENCY. Refer to the CSFST EALs at the top of Form ER 1.1A.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for GENERAL EMERGENCY

15f. Loss of emergency coolant recirculation (ECA-1.1).

NOTE

This Initiating Condition does not apply in Modes 4, 5 or 6, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

INITIATION OF EMERGENCY PROCEDURE ECA-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

16a. Fire inside the Protected Area lasting more than 10 minutes

EMERGENCY ACTION LEVELS

1.	THERE IS A FIRE LOCATED INSIDE THE PROTECTED AREA (See Note below)

AND

2.	THE FIRE IS NOT EXTINGUISHED WITHIN 10 MINUTES OF CONTROL ROOM NOTIFICATION OR VERIFICATION OF A CONTROL ROOM ALARM.

NOTE

Fire as detected by visual observation and reported by plant personnel or sensor alarm indication. The 10 minute time period begins with a credible notification that a fire is occurring, or verification (by whatever means) that the fire detection system alarm is valid.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

16b. Fire potentially or actually defeating one train of a safety system

EMERGENCY ACTION LEVELS

1. A VALID "S" OR "P" SIGNAL EXISTS

AND

2. THE FIRE HAS DISABLED, OR HAS THE POTENTIAL TO DISABLE, ONE OPERABLE TRAIN OF ANY OF THE FOLLOWING SYSTEMS: a) Charging b) Safety Injection c) Residual Heat Removal d) Containment Building Spray e) Emergency Feedwater f) Containment Phase A Isolation Valves g) Containment Phase B Isolation Valves (SEE NOTE BELOW)

NOTE

If the remaining (unaffected by the fire) train is also inoperable, refer to Initiating Condition 16c.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

16c. Fire potentially or actually defeating both trains of a safety system

EMERGENCY ACTION LEVELS

1.	A VALID "S" OR "P" SIGNAL EXISTS

AND

2.	THE FIRE HAS RESULTED, OR MAY RESULT, IN THE LOSS OF BOTH TRAINS OF ANY OF THE FOLLOWING SYSTEMS: a) Charging b) Safety Injection c) Residual Heat Removal d) Containment Building Spray e) Emergency Feedwater (If the Startup Feedwater System is operable, declare an ALERT.) f) Containment Phase A Isolation Valves g) Containment Phase B Isolation Valves

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

17a. Control Room evacuation anticipated or required with safe shutdown capability established.

EMERGENCY ACTION LEVELS

A determination by the Shift Manager that:

CONTROL ROOM EVACUATION IS ANTICIPATED

OR

CONTROL ROOM EVACUATION HAS OCCURRED AND SAFE SHUTDOWN CAPABILITY HAS BEEN ESTABLISHED WITHIN 15 MINUTES OF THE ANNOUNCEMENT FOR MANNING THE REMOTE SAFE SHUTDOWN PANELS PER PROCEDURE OS1200.02.

NOTE 1

In the event of a Control Room evacuation, Short Term Emergency Director (STED) actions may be performed from the Alternate TSC in Administration Building Room 219. If time permits, take the STED packet from the Control Room with you; if not, SSER Manual checklists and forms are available in a file cabinet in Room 219. Announce that TSC personnel should assemble in Room 245 of the Administration Building and await further instructions.

NOTE 2

Verify that Remote Safe Shutdown (RSS) capability was established within 15 minutes of the announcement to man the RSS panels; if not, declare a Site Area Emergency in accordance with Initiating Condition 17b. RSS capability is established when at least one RSS panel is manned.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

17b. Control Room evacuation without safe shutdown capability established within fifteen minutes.

EMERGENCY ACTION LEVELS

A determination by the Shift Manager that the following conditions exist:

1.	THE CONTROL ROOM HAS BEEN EVACUATED

AND

2.	SAFE SHUTDOWN CAPABILITY HAS NOT BEEN ESTABLISHED WITHIN 15 MINUTES OF THE ANNOUNCEMENT FOR MANNING THE REMOTE SAFE SHUTDOWN PANELS PER PROCEDURE OS1200.02.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

18a. Hazards experienced or projected which involve potential degradation of station safety.

EMERGENCY ACTION LEVELS

NATURAL PHENOMENA

1. ANY SEISMIC ACTIVITY LESS THAN OBE LEVELS AS INDICATED BY:

   a) VAS ALARM

D POINT	MESSAGE
5452	SEISMIC EVENT IN PROGRESS

   AND

   b) YELLOW "EVENT" LIGHT LIT AND RED "OBE" LIGHT OFF ON SEISMIC MONITORING CONTROL CABINET 1-SM-CP-58 POWER PANEL

   AND

   c) EITHER OF THE FOLLOWING:

      (1) THE EARTHQUAKE IS FELT BY STATION PERSONNEL

      OR

      (2) THE EARTHQUAKE OCCURRENCE IS VERIFIED DURING IMPLEMENTATION OF PROCEDURE ES1802.001, SEISMIC RESPONSE PROCEDURE

OR

2. TORNADO STRIKING ANYWHERE ON SITE

OR

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

18a. (Continued)

3.	WIND SPEEDS EXCEEDING 75 MPH FOR GREATER THAN OR EQUAL TO 5 MINUTES.
	VAS INDICATORS
	A POINT — MESSAGE
	A1626 — UPPER WIND SPEED (INSTANT), OR
	A1628 — LOWER WIND SPEED (INSTANT)

OR

4.	A VERIFIED TIDAL WAVE WARNING FOR THE HAMPTON AND SEABROOK BEACHES.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

18a. (Continued)

SECURITY EVENTS

A determination by the Shift Manager or notification by the Security Supervisor that:

1.	AN ARMED INTRUDER(S) IS ATTEMPTING TO ENTER THE PROTECTED AREA

OR

2.	A SABOTAGE ACT HAS OCCURRED (OR BEEN ATTEMPTED) INSIDE THE PROTECTED AREA BUT OUTSIDE ANY VITAL AREAS

OR

3.	THERE IS A CREDIBLE BOMB THREAT INSIDE THE PROTECTED AREA BUT OUTSIDE ANY VITAL AREAS

OR

4.	THE SECURITY DEPARTMENT RECEIVES NOTIFICATION OF A CREDIBLE, SITE-SPECIFIC SECURITY THREAT.

OR

5.	A LARGE DISTURBANCE OUTSIDE THE PROTECTED AREA THAT COULD RESULT IN A BREACH OF THE PROTECTED AREA FENCE.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

18a. (Continued)

MANMADE EVENTS

1. AN AIRCRAFT CRASH ANYWHERE ON SITE THAT MAY ADVERSELY IMPACT NORMAL STATION OPERATIONS

OR

2. AN EXPLOSION ANYWHERE NEAR SITE OR ON SITE THAT MAY ADVERSELY IMPACT NORMAL STATION OPERATIONS

OR

3. A RELEASE OF TOXIC OR FLAMMABLE GAS FROM ANYWHERE NEAR SITE OR ON SITE THAT MAY ADVERSELY IMPACT NORMAL STATION OPERATIONS

OR

4. PLANT SHUTDOWN DUE TO TURBINE DAMAGE WITHOUT CASING PENETRATION.

   a) A VALID TURBINE TRIP SIGNAL EXISTS

   AND

   b) TURBINE BEARING VIBRATION EXCEEDS 15 MILS

   AND

   c) EXCESSIVE OR UNUSUAL TURBINE NOISE EXISTS.

DISCRETIONARY EVENTS

AN EVENT IS IN PROGRESS OR HAS OCCURRED THAT INDICATES A POTENTIAL DEGRADATION OF THE LEVEL OF SAFETY OF THE STATION.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

18b. Hazards experienced or projected which involve substantial degradation of station safety.

EMERGENCY ACTION LEVELS

NATURAL PHENOMENA

1. OBE EARTHQUAKE AS INDICATED BY:

   a) VAS ALARM

D POINT	MESSAGE
D5452	SEISMIC EVENT IN PROGRESS

   AND

   b) YELLOW "EVENT" LIGHT LIT AND RED "OBE" LIGHT LIT ON SEISMIC MONITORING CONTROL CABINET 1-SM-CP-58 POWER PANEL

   AND

   c) EITHER OF THE FOLLOWING:

      (1) THE EARTHQUAKE IS FELT BY STATION PERSONNEL

      OR

      (2) AN OBE EARTHQUAKE OCCURRENCE IS VERIFIED DURING IMPLEMENTATION OF PROCEDURE ES1802.001, SEISMIC RESPONSE PROCEDURE

OR

2. TORNADO STRIKING ANY PERMANENT STRUCTURE INSIDE THE PROTECTED AREA THAT CONTAINS SYSTEMS REQUIRED FOR SAFE SHUTDOWN

OR

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

18b. (Continued)

3.	WIND SPEEDS EXCEEDING 85 MPH FOR GREATER THAN OR EQUAL TO 5 MINUTES.	
	VAS INDICATORS	
	A POINT	MESSAGE
	A1626	UPPER WIND SPEED (INSTANT), OR
	A1628	LOWER WIND SPEED (INSTANT)

OR

4.	POTENTIAL SITE FLOODING AS INDICATED BY WATER LEVEL APPROACHING THE TOP OF THE SEA WALL.

MANMADE EVENTS

1.	AN AIRCRAFT CRASH IMPACTING ON ANY PERMANENT STRUCTURE INSIDE THE PROTECTED AREA THAT CONTAINS SYSTEMS REQUIRED FOR SAFE SHUTDOWN

OR

2.	AN EXPLOSION OR MISSILE IMPACT DAMAGING ANY PERMANENT STRUCTURE INSIDE THE PROTECTED AREA THAT CONTAINS SYSTEMS REQUIRED FOR SAFE SHUTDOWN

OR

3.	UNCONTROLLED RELEASE OF SIGNIFICANT QUANTITIES OF A TOXIC OR FLAMMABLE GAS ANYWHERE INSIDE OR INTO THE PROTECTED AREA
	AND
4.	THE CONCENTRATION OF THE GAS MAY (OR HAS) ADVERSELY IMPACT(ED) NORMAL STATION OPERATIONS

OR

5.	TURBINE FAILURE WITH CASING PENETRATION.

DISCRETIONARY EVENTS

AN EVENT IS IN PROGRESS OR HAS OCCURRED THAT INVOLVES AN ACTUAL OR POTENTIAL SUBSTANTIAL DEGRADATION OF THE LEVEL OF SAFETY OF THE STATION.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

18b. (Continued)

SECURITY EVENTS

A determination by the Shift Manager or notification by the Security Supervisor that:

1.	AN ARMED INTRUDER(S) HAS GAINED ENTRY INTO THE PROTECTED AREA

OR

2.	A SABOTAGE ACT HAS OCCURRED (OR BEEN ATTEMPTED) INSIDE ANY VITAL AREA

OR

3.	THERE IS A CREDIBLE BOMB THREAT INSIDE ANY VITAL AREA

OR

4.	A LARGE DISTURBANCE HAS RESULTED IN OCCUPATION OF ANY PORTION OF THE PROTECTED AREA.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition For SITE AREA EMERGENCY

18c. Hazards experienced or projected which involve major failures of station functions needed for public protection.

EMERGENCY ACTION LEVELS

NATURAL PHENOMENA

1. SSE EARTHQUAKE AS INDICATED BY:

a) VAS ALARM

D POINT	MESSAGE
5452	SEISMIC EVENT IN PROGRESS

AND

b) YELLOW "EVENT" LIGHT LIT AND RED "OBE" LIGHT LIT ON SEISMIC MONITOR CONTROL CABINET 1-SM-CP-58 POWER PANEL

AND

c) THE EARTHQUAKE IS FELT BY STATION PERSONNEL

AND

d) SUBSEQUENT ENGINEERING ANALYSIS CONFIRMS THAT THE EARTHQUAKE MET OR EXCEEDED SSE LEVELS.

OR

2. WIND SPEEDS INDICATED AT 100 MPH (OR MORE) FOR GREATER THAN OR EQUAL TO 5 MINUTES

VAS INDICATORS

A POINT	MESSAGE
A1626	UPPER WIND SPEED (INSTANT), OR
A1628	LOWER WIND SPEED (INSTANT)

OR

3. SITE FLOODING AS INDICATED BY WATER LEVEL OVER THE SEA WALL.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition For SITE AREA EMERGENCY

18c. (Continued)

MANMADE EVENTS

1.	AN AIRCRAFT CRASH RESULTING IN DAMAGE OR FIRE INSIDE ANY VITAL AREA

OR

2.	AN EXPLOSION OR MISSILE IMPACT DAMAGING EQUIPMENT INSIDE ANY VITAL AREA

OR

3.	UNCONTROLLED RELEASE OF SIGNIFICANT QUANTITIES OF TOXIC OR FLAMMABLE GASSES INSIDE OR INTO ANY VITAL AREA.

SECURITY EVENT

1.	OCCUPATION OF A VITAL AREA BY AN ARMED INTRUDER(S) IS IMMINENT.

DISCRETIONARY EVENTS

AN EVENT IS IN PROGRESS OR HAS OCCURRED THAT INVOLVES ACTUAL OR LIKELY MAJOR FAILURES OF STATION FUNCTIONS NEEDED FOR PROTECTION OF THE PUBLIC.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for GENERAL EMERGENCY

18d. Hazards experienced or projected which involve substantial core degradation and/or gross loss of containment integrity.

EMERGENCY ACTION LEVELS

NATURAL PHENOMENA/MANMADE EVENTS

THERE HAS BEEN OR WILL BE MAJOR INTERNAL OR EXTERNAL EVENTS THAT COULD CAUSE OR HAVE CAUSED MASSIVE COMMON DAMAGE TO PLANT SYSTEMS RESULTING IN ANY OF THE GENERAL EMERGENCY INITIATING CONDITIONS.

SECURITY THREATS

A VITAL AREA HAS BEEN OCCUPIED BY AN ARMED INTRUDER(S).

DISCRETIONARY EVENTS

AN EVENT IS IN PROGRESS OR HAS OCCURRED THAT INVOLVES ACTUAL OR IMMINENT SUBSTANTIAL CORE DEGRADATION OR MELTING WITH POTENTIAL FOR LOSS OF CONTAINMENT INTEGRITY.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for UNUSUAL EVENT

19a. Loss of shutdown cooling with RCS loops filled

NOTE

This Initiating Condition does not apply in Modes 1, 2, 3, or 4, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. IRRADIATED FUEL IS PRESENT IN THE REACTOR VESSEL

AND

2. RCS IS ALIGNED FOR SHUTDOWN COOLING

AND

3. SHUTDOWN COOLING HAS BEEN LOST

AND

4. RCS LOOPS ARE FILLED

NOTE - REFER TO TECHNICAL CLARIFICATION #162 FOR DEFINITION OF RCS LOOPS FILLED.

AND

5. ONE HOUR HAS ELAPSED SINCE SHUTDOWN COOLING WAS LOST

OR

6. RCS SUBCOOLING IS LESS THAN 10° F.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for ALERT

19b. Loss of shutdown cooling with RCS loops not filled

NOTE

This Initiating Condition does not apply in Modes 1, 2, 3, or 4, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. IRRADIATED FUEL IS PRESENT IN THE REACTOR VESSEL

AND

2. RCS IS ALIGNED FOR SHUTDOWN COOLING

AND

3. SHUTDOWN COOLING HAS BEEN LOST

AND

4. RCS LOOPS ARE NOT FILLED

NOTE - REFER TO TECHNICAL CLARIFICATION #162 FOR DEFINITION OF RCS LOOPS FILLED.

AND

5. ONE HOUR HAS ELAPSED SINCE SHUTDOWN COOLING WAS LOST

OR

6. RCS TEMPERATURE GREATER THAN 200° F.

Figure 1
Miscellaneous Emergency Conditions and Emergency Action Levels
(Continued)

Initiating Condition for SITE AREA EMERGENCY

19c. Loss of shutdown cooling without containment integrity

NOTE
This Initiating Condition does not apply in Modes 1, 2, 3, or 4, or when the reactor vessel is defueled.

EMERGENCY ACTION LEVELS

1. IRRADIATED FUEL IS PRESENT IN THE REACTOR VESSEL

AND

2. RCS IS ALIGNED FOR SHUTDOWN COOLING

AND

3. SHUTDOWN COOLING HAS BEEN LOST

AND

4. RCS TEMPERATURE GREATER THAN 200°F

AND

5. RCS IS OPEN TO ATMOSPHERE

AND

6. CONTAINMENT INTEGRITY IS NOT SET.

Figure 2
Dose Assessment Data Points

MPC POINTS/ RDMS CHANNEL #	DESCRIPTION	UNITS/MEASURE
C3000	Time after Shutdown	hr/min
C0784	Upper Wind Speed	mph
C0786	Upper Wind Direction (from)	deg
C0783	Lower Wind Speed	mph
C0785	Lower Wind Direction (from)	deg
C0787	Lower Delta Temp E1 150/43	F
C0788	Upper Delta Temp E1 209/43	F
C0797	Precipitation	in/qtr hr
C0798	Solar Radiation	Langley/min.
A3778	Contm Encl/Outside Atmos DP	(-)In. Wc.
C0726	Contm Avg Press (Band)	psig
C1000	Contm Dose Rate (Have)	R/hr
AM104	Lo Range Personnel Hatch	mr/hr
AM105	Hi Range Personnel Hatch	mr/hr
RM-6528-1, 2 & 3	WRGM Concentration	µCi/cc
RM-6528-4	Plant Discharge Rate	µCi/sec
RM-6481-1	Main Steam Line Loop 1	mr/hr
RM-6482-1	Main Steam Line Loop 2	mr/hr
RM-6482-2	Main Steam Line Loop 3	mr/hr
RM-6481-2	Main Steam Line Loop 4	mr/hr
D5214	ASDV A	Open/Closed
D5215	ASDV B	Open/Closed
D5216	ASDV C	Open/Closed
D5217	ASDV D	Open/Closed
C3145	SG A Avg Pressure Band	psig
C3146	SG B Avg Pressure Band	psig
C3147	SG C Avg Pressure Band	psig
C3148	SG D Avg Pressure Band	psig

Figure 3
Summary of Changes

Rev. 35:

In EAL 7b, added an initiating condition for an Alert.

In EAL 16a, 16b, and 16c, removed the condition of verification of a fire by the Fire Brigade Leader.

In EAL 18a, 18b, 18c and 18d, removed the words descriptive words 'malicious' and 'hostile' from 'Armed Intruder.'

Rev. 34:

In §3.0 added sentence to precaution 2 to allow the STED or SED to make an emergency classification based on anticipated events (CR 02-11319).

In §3.0, deleted precaution 5. Renumbered subsequent precautions accordingly.

In §3.0, revised precaution 7 to add that reclassifications made by the SED are deemed to be declared when the SED announces the classification in the Control Room or TSC.

In §3.0, revised precaution 8 to direct implementation of the applicable ER 1.2 STED checklist through to state notification before terminating or reclassifying the event (CR 02-04545).

In §3.0, revised precaution 9 to direct the Shift Manager to notify the ENM for notification of the states where emergency-related indications are received but cleared before an emergency is declared.

In §3.0, revised precaution 10 to direct the Shift Manager to notify the ENM for notification of the states where it was determined that an emergency classification was warranted by not declared after emergency-related indications had cleared.

In §5.0, added a Note after action 5.1.9 that implementation of ER 1.2 is not required after activation of the TSC at an Alert or higher emergency classification level.

In Figure 1, initiating condition 18b, EAL 3, changed wind speed value from 90 mph to 85 mph.

In Figure 1, initiating condition 18c, EAL 1, referred to subsequent engineering analysis versus use of procedure ES1802.001 to confirm that an earthquake met or exceeded SSE levels.

In Figure 1, initiating condition 18c, EAL 3, changed wind speed from 110 mph to 100 mph.

Moved "using hardwired information" from §5.1, step 2, to §3.0, step 4 (CR 01-00128).

EMERGENCY CLASSIFICATION FLOW CHART

CRITICAL SAFETY FUNCTIONS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
S Subcriticality		S orange	S red	
C Core Cooling	C yellow	C yellow AND Z yellow	C orange	C red C orange AND Any Z red C Orange AND 15e. 15e. LOCA Outside of Containment C orange AND H red
H Heat Sink	H yellow (Except FR-H.5)		H red	H red AND 6e. 6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.
P RCS Integrity	P yellow	P orange	P red with RCS pressure greater than 268 psig	
Z Containment integrity	Z yellow	Z yellow AND C yellow	Z Red with containment pressure less than 52 psig	Z Red with containment pressure greater than or equal to 52 psig
			Z Orange with containment pressure less than 18 psig	Any Z Orange AND 6e. 6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.

MISCELLANEOUS EMERGENCY CONDITIONS

6. Electrical Failures
- 6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes.
  - 6b. Bus E5 AND E6 cannot be powered from the diesels.
  - 6c. Bus E5 AND E6 cannot be powered from the diesels or an offsite source.
    - 6d. Loss of all vital DC busses 11A, 11B, 11C, & 11D.
    - 6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.
      - 6f. Loss of all vital DC busses 11A, 11B, 11C & 11D for greater than 15 minutes.

6e. Bus E5 AND E6 cannot be powered from the diesels or an offsite source within 15 minutes.
AND
6f. Loss of all vital DC busses 11A, 11B, 11C & 11D for greater than 15 minutes.

7. Steam Generator Tube Leakage or Rupture
- 7a. Primary to secondary leakage greater than 500 gal per day from any steam generator or steam generator specific activity greater than 0.1 uCi/cc dose equivalent I-131
  - 6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes. AND 7a.
- 7b. Steam Generator Tube Rupture.
  - 6a. Buses E5 AND E6 are not powered from an offsite source for greater than 15 minutes. AND 7b.
  - 7b. Steam Generator Tube Rupture. AND 8b. Reactor coolant gross activity ≥3,800 uCi/cc or dose equivalent I-131 activity ≥300 uCi/cc.

8. Fuel Failure Indications
- 8a. Reactor coolant specific activity greater than Technical Specification limits
- 8b. Reactor coolant gross activity ≥3,800 uCi/cc or dose equivalent I-131 activity ≥300 uCi/cc.
  - 8c. Containment post-LOCA monitors reading ≥ to 1,000 R/hr.
    - 8d. Containment post-LOCA monitors reading ≥ to 4,000 R/hr.

9. Loss of Monitoring Capability
- 9a. Unplanned loss of most UA panel hardwired annunciator alarms for greater than 15 minutes.
- 9b. Failure of Control Room RDMS panels
- 9c. Loss of automatic and manual SPDS.
- 9d. Unplanned loss of most UA panel hardwired annunciator alarms for greater than 15 minutes with a transient in progress OR without compensatory measures.
  - 9e. Inability to monitor a significant transient in progress.

10. Loss of all Communication Capability
- 10a. Loss of all control room communication

11. Shutdown Technical Specifications Surpassed
- 11a. Initiation of shutdown to the cold shutdown condition as required by technical specifications.

12. High Radiation Alarms
- 12a. Site boundary dose rate ≥0.86 mrem/hr.
  - 12b. Site boundary dose rate ≥ 8.6 mrem/hr.
    - 12d. Site boundary dose rate ≥ 50 mrem/hr or adult thyroid CDE rate > 250 mrem/hr.
      - 12e. Site boundary TEDE ≥ 1,000 mrem or adult thyroid CDE ≥ 5,000 mrem
  - 12c. Significant loss in the control of radioactive materials and an increase in radiation monitor(s) by a factor of 1000 or greater.

13. Fuel Handling Accident
- 13a. Fuel handling accident with release of radioactivity
  - 13b. Major damage to irradiated fuel with radiation release or loss of water in spent fuel pool or reactor cavity and irradiated fuel present.

14. Abnormal Reactor Trip or Safety Injection
- 14a. Abnormal Reactor Trip or Safety Injection

15. Loss of Primary or Secondary Coolant inside or outside of containment.
- 15a. Reactor Coolant System leakage.
  - 15c. Reactor Coolant leak >50 gpm.
    - 15d. Loss of Reactor Coolant with ECCS required.
      - 15f. Loss of emergency coolant recirculation
    - 15e. LOCA outside of containment.
- 15b. Faulted Steam Generator Isolation.

16. Fire
- 16a. Fire inside the Protected Area lasting more than 10 minutes.
  - 16b. Fire potentially or actually defeating one train of a safety system.
    - 16c. Fire potentially or actually defeating both trains of a safety system.

17. Control Room Evacuation
- 17a. Anticipated or required with safe shutdown capability established.
  - 17b. Evacuation without safe shutdown capability established within 15 minutes.

18. Other Natural or Man-Made Hazards Affecting plant Operation
- 18a. Hazards experienced or projected which involve potential degradation of station safety (see EAL's)
  - 18b. Hazards experienced or projected which involve substantial degradation of station safety (see EAL's).
    - 18c. Hazards experienced or projected which involve major failures of station functions needed for public protection (see EAL's).
      - 18d. Hazards experienced or projected which involve substantial core degradation and/or gross loss of containment integrity (see EAL's).

19. Loss of Shutdown Cooling
- 19a. Loss of Shutdown Cooling with RCS loops filled
  - 19b. Loss of Shutdown Cooling with RCS loops not filled
    - 19c. Loss of Shutdown Cooling without containment integrity

If an emergency classification is warranted, immediately implement Emergency Response Procedure ER 1.2, Emergency Plan Activation.

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