



August 8, 2000
RC-00-0281

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
EMERGENCY PLAN PROCEDURE TRANSMITTAL

Melvin N. Browne
*Manager, Nuclear Licensing
& Operating Experience*
803.345.4141

In compliance with 10CFR50 Appendix E(V), South Carolina Electric & Gas Company, acting for itself and as agent for South Carolina Public Service Authority, transmits one controlled copy of EPP-015, Revision 13, Change C, "Natural Emergency (Earthquake, Tornado, Hurricane)".

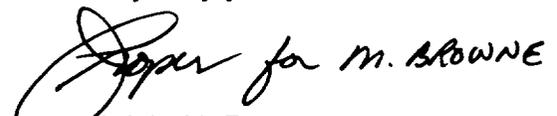
The effectiveness of the Virgil C. Summer Nuclear Station Radiation Emergency Plan is not decreased by the change to this procedure.

Should you have any questions, please contact Mrs. Donna Railey at (803) 345-4107.

South Carolina Electric & Gas Co
Virgil C. Summer Nuclear Station
P. O. Box 88
Jenkinsville, South Carolina
29065

803.345.4344
803.345.5209
www.scona.com

Very truly yours,


Melvin N. Browne

DWR/MNB/dr
Attachment

c: (Without Attachment unless noted)
L. A. Reyes (With 2 Attachments)
NRC Resident Inspector
RTS (RR 6000)
File (810.10-2)
DMS (RC-00-0281)

NUCLEAR EXCELLENCE - A SUMMER TRADITION!

A045

SOUTH CAROLINA ELECTRIC & GAS COMPANY
 VIRGIL C. SUMMER NUCLEAR STATION
 NUCLEAR OPERATIONS

NUCLEAR OPERATIONS

COPY NO. 157

EMERGENCY PLAN PROCEDURE

EPP-015

NATURAL EMERGENCY
 (EARTHQUAKE, TORNADO, HURRICANE)

REVISION 13

SAFETY RELATED

Harry L. Quinn
 DISCIPLINE SUPERVISOR

1-3-96
 DATE

S. H. C. B. e
 APPROVAL AUTHORITY

11/5/96
 DATE

RECORD OF CHANGES

CHANGE LETTER	TYPE CHANGE	APPROVAL DATE	CANCELLATION DATE	CHANGE LETTER	TYPE CHANGE	APPROVAL DATE	CANCELLATION DATE
A	P	07-21-92					
B	P	11-23-95					
C	P	07-18-00					

INFORMATION USE

Procedure May Be Performed from Memory.
 User Retains Accountability for Proper Performance.

NUCLEAR OPERATIONS

COPY NO. 157

SAP-139
ATTACHMENT III
PAGE 1 OF 3
REVISION 19

PROCEDURE DEVELOPMENT FORM - A

I. DATE: <u>5-30-00</u> PROC.# <u>EPP-015</u> REV.# <u>13</u> CHG. <u>C</u> COMM.# _____																																																																																																									
TITLE: <u>Natural Emergency (Earthquake, Tornado, Hurricane)</u>																																																																																																									
NEW PROC _____ CHANGE <input checked="" type="checkbox"/> PERMANENT <input checked="" type="checkbox"/>	SAFETY RELATED <input checked="" type="checkbox"/>																																																																																																								
REVISION _____ RESTRICTED _____ FROM _____ TO _____	QUALITY RELATED _____																																																																																																								
	NON-SAFETY RELATED _____																																																																																																								
II. DESCRIPTION: <u>Added 5.1.1.A.5-7 and 5.1.2.B.5-7</u> <u>Raworded and renumbered Section 5.2 and Added Attachment III.</u> <u>Added fitness and Wellness Center and deleted Old QA Building from Attachment II and changed Tornado Shelter for that location</u> <u>Moved previous sect 5.1.2.A.2 to 5.1.2.C.4</u> REASON FOR CHANGE: <u>PIP-O-C-99-1077 CAT-11 to include actions to be taken after a tornado strikes the facility</u> <u>To enhance planning for hurricanes.</u> <u>Change in terminology and specify best location for personnel safety</u> <u>Improve flow of procedure.</u> Originator: <u>R.J. Schwartz</u> Sign/Print: <u>[Signature]</u>																																																																																																									
III. WILL THIS REVISION/CHANGE/NEW PROCEDURE: <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;">*YES</td> <td style="text-align: center;">NO</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>1. Result in significant increased personnel radiation exposure? (ALARA review)</td> <td style="text-align: center;">_____</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>2. Result in a release of effluents to the Environment?</td> <td style="text-align: center;">_____</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>3. Degrade the effectiveness of the Radiation Emergency Plan?</td> <td style="text-align: center;">_____</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">_____</td> </tr> <tr> <td>4. Degrade the safeguards effectiveness of the Physical Security, Safeguards Contingency of Training and Qualification Plans?</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> <p>* If any question 1 through 4 is answered "YES", refer to appropriate section of procedure for direction</p>			*YES	NO	N/A	1. Result in significant increased personnel radiation exposure? (ALARA review)	_____	<input checked="" type="checkbox"/>	_____	2. Result in a release of effluents to the Environment?	_____	<input checked="" type="checkbox"/>	_____	3. Degrade the effectiveness of the Radiation Emergency Plan?	_____	<input checked="" type="checkbox"/>	_____	4. Degrade the safeguards effectiveness of the Physical Security, Safeguards Contingency of Training and Qualification Plans?	_____	_____	<input checked="" type="checkbox"/>																																																																																				
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TEMPORARY APPROVAL: QUALIFIED REVIEWER _____ DATE _____ QA REVIEW _____ DATE _____ TELECON BY _____ TELECON BY _____ SHIFT SUPERVISOR _____ DATE _____ FINAL APPROVAL REQUIRED BY: DATE _____ </td> </tr> <tr> <td colspan="6"> VI. DISCIPLINE SUPERVISOR FINAL REVIEW: PSRC REVIEW PRIOR TO IMPLEMENTATION? YES _____ NO <input checked="" type="checkbox"/> TRAINING REQUIRED? YES <input checked="" type="checkbox"/> NO _____ IF YES, PRIOR TO PROCEDURE IMPLEMENTATION? YES _____ NO <input checked="" type="checkbox"/> P/CAP AFFECTED? YES _____ NO <input checked="" type="checkbox"/> COMMENTS RESOLVED: <u>[Signature]</u> <u>6/21/00</u> Discipline Supervisor _____ Date _____ </td> <td colspan="4"> VII. P/CAP ACCEPTABLE? C. YES _____ NO <u>N/A</u> _____ Date _____ N. YES _____ NO <u>N/A</u> _____ Date _____ RESP. MGR. _____ Date _____ </td> </tr> <tr> <td colspan="6"></td> <td colspan="4"> VIII. FINAL QA REVIEW (As Applicable) <u>N/A</u> QA Concurrence _____ Date _____ </td> </tr> <tr> <td colspan="6"></td> <td colspan="4"> IX. APPROVAL AUTHORITY: <u>N/A</u> Training Completed _____ Date _____ <u>[Signature]</u> _____ Date <u>7/18/2000</u> Procedure Approval/Concurrence _____ Date _____ </td> </tr> <tr> <td colspan="6"> X. PSRC REVIEW: A. REVIEWED BY: PSRC Chairman _____ Date _____ COMMENTS: YES _____ NO _____ </td> <td colspan="4"> B. PSRC COMMENTS RESOLVED: Responsible Manager _____ Date _____ PSRC Chairman _____ Date _____ </td> </tr> </table>		<input type="checkbox"/> MCHS	<input type="checkbox"/> MNL&OE	<input type="checkbox"/> MPL	<input type="checkbox"/> GMES	<input type="checkbox"/> CWPS	<input type="checkbox"/> ISEG	<input checked="" type="checkbox"/> NOET	<input type="checkbox"/> QC	<input checked="" type="checkbox"/> GMNS	Discipline Supervisor <u>[Signature]</u> Date: <u>5/30/00</u>	<input type="checkbox"/> MDE	<input type="checkbox"/> MNPS	<input type="checkbox"/> MPSE	<input type="checkbox"/> GMNPO	<input type="checkbox"/> DE	<input checked="" type="checkbox"/> MNTS	<input checked="" type="checkbox"/> NPS	<input checked="" type="checkbox"/> QR	<input checked="" type="checkbox"/> QA	<input type="checkbox"/> MHPS	<input type="checkbox"/> MNT	<input checked="" type="checkbox"/> MSPD	<input type="checkbox"/> GMNSS	<input type="checkbox"/> FFD	<input type="checkbox"/> MQS	<input type="checkbox"/> NTET	<input type="checkbox"/> RC	<input type="checkbox"/> RE	<input type="checkbox"/> MMPR	<input type="checkbox"/> MOPS	<input checked="" type="checkbox"/> SAS	<input type="checkbox"/> GMSPD	<input checked="" type="checkbox"/> HPS	<input checked="" type="checkbox"/> MPR	<input checked="" type="checkbox"/> OPS	<input type="checkbox"/> TU	<input type="checkbox"/> TU	<input type="checkbox"/> MMS	<input type="checkbox"/> MP&S	<input type="checkbox"/> QA	<input type="checkbox"/> CHS	<input checked="" type="checkbox"/> ISD	<input type="checkbox"/> NL&OE	<input type="checkbox"/> PSE	<input type="checkbox"/> PSE	<input type="checkbox"/> PSE	IV. 10CFR50.59 SCREENING REVIEW/SAFETY EVALUATION <input type="checkbox"/> REQUIRED <input checked="" type="checkbox"/> EXEMPT <input type="checkbox"/> PSRC SUPPORTING DOCUMENT: <u>10CFR50.54</u>									V. 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NUCLEAR OPERATIONS
COPY NO. 157

SAP-139
 ATTACHMENT IV
 PAGE 1 OF 3
 REVISION 18

PROCEDURE DEVELOPMENT FORM - A

I. DATE: 11-3-98 **PROC.#** EPP-015 **REV.#** 13 **CHG.** B **COMM.#** _____
TITLE: Natural Emergency (Earthquake, Tornado, Hurricane)

NEW PROC _____ **CHANGE** **PERMANENT** **SAFETY RELATED**
REVISION _____ **RESTRICTED** _____ **FROM** _____ **TO** _____ **QUALITY RELATED** _____
NON-SAFETY RELATED _____

II. DESCRIPTION: ① Changed Reference 2.17 to SAP-1131 ② Reworded section 6.1
 ③ 5.3.1.G.2: Changed the word operability to functionality.

REASON FOR CHANGE:
 ③ Heat removal systems do not have to meet all the requirements for operability to be able to support shutting the plant down
Safety Originator R.J. Schwartz Sign/Print

III. WILL THIS REVISION/CHANGE/NEW PROCEDURE:

	YES	NO	N/A
1. Result in significant increased personnel radiation exposure? (ALARA review)	_____	<input checked="" type="checkbox"/>	_____
2. Result in a release of effluents to the Environment?	_____	<input checked="" type="checkbox"/>	_____
3. Degrade the effectiveness of the Radiation Emergency Plan?	_____	<input checked="" type="checkbox"/>	_____
4. Degrade the safeguards effectiveness of the Physical Security, Safeguards Contingency of Training and Qualification Plans?	_____	_____	<input checked="" type="checkbox"/>

* If any question 1 through 4 is answered "YES", refer to appropriate section of procedure for direction.

REQUIRED REVIEW AND COMMENT:

<input type="checkbox"/> MOPS	<input type="checkbox"/> MHPS	<input type="checkbox"/> GMNPO	<input type="checkbox"/> QA	<input type="checkbox"/> TU	<input type="checkbox"/> ISD	<input checked="" type="checkbox"/> QA
<input type="checkbox"/> MMS	<input type="checkbox"/> MDE	<input type="checkbox"/> GMES	<input type="checkbox"/> QC	<input type="checkbox"/> CHS	<input type="checkbox"/> RC	<input checked="" type="checkbox"/> GMNPS
<input type="checkbox"/> MQS	<input type="checkbox"/> MNT	<input type="checkbox"/> GMNS	<input type="checkbox"/> SAS	<input checked="" type="checkbox"/> HPS	<input checked="" type="checkbox"/> Camb	
<input type="checkbox"/> MPSE	<input type="checkbox"/> MNL&OE	<input type="checkbox"/> GMSPD	<input type="checkbox"/> MNTS	<input type="checkbox"/> PSE	<input type="checkbox"/> _____	
<input type="checkbox"/> MCHS	<input type="checkbox"/> MNPS	<input checked="" type="checkbox"/> OPS	<input checked="" type="checkbox"/> NPS	<input type="checkbox"/> DE	<input type="checkbox"/> _____	

REQUESTED REVIEWS:
Discipline Supervisor 11/4/98 Date

IV. 10CFR50.59 SCREENING REVIEW/SAFETY EVALUATION
 REQUIRED EXEMPT PSRC **SUPPORTING DOCUMENT:** 10CFR50.54g Discipline Supervisor Concurrence

V. TEMPORARY APPROVAL:

QUALIFIED REVIEWER _____ **DATE** _____ **QA REVIEW** _____ **DATE** _____
TELECON BY _____ **TELECON BY** _____
SHIFT SUPERVISOR _____ **DATE** _____ **FINAL APPROVAL REQUIRED BY: DATE** _____

VI. DISCIPLINE SUPERVISOR FINAL REVIEW:

PSRC REVIEW PRIOR TO IMPLEMENTATION? YES _____ NO
TRAINING REQUIRED? YES _____ NO
IF YES, PRIOR TO PROCEDURE IMPLEMENTATION? YES _____ NO _____
P/CAP AFFECTED? YES _____ NO
COMMENTS RESOLVED: Discipline Supervisor 11/12/98 Date

VII. P/CAP ACCEPTABLE?
C. YES _____ **NO** N/A _____ Date
N. YES _____ **NO** N/A _____ Date
RESP. MGR. _____ Date

VIII. FINAL QA REVIEW (As Applicable)
QA Concurrence _____ Date

IX. APPROVAL AUTHORITY:
Training Completed _____ Date
Procedure Approval/Concurrence 11/23/98 Date

X. PSRC REVIEW:

A. REVIEWED BY:
PSRC Chairman _____ Date
COMMENTS: YES _____ NO _____

B. PSRC COMMENTS RESOLVED:
Responsible Manager _____ Date
PSRC Chairman _____ Date

NUCLEAR OPERATIONS
COPY NO. 157

SAP-139
 ATTACHMENT IV
 PAGE 1 OF 3
 REVISION 18

PROCEDURE DEVELOPMENT FORM - A

I. DATE: 4-27-98 PROC# EPP-015 REV.# 13 CHG. A COMM.# _____
 TITLE: Natural Emergency (Earthquake, Tornado, Hurricane)

NEW PROC _____ CHANGE PERMANENT SAFETY RELATED
 REVISION _____ RESTRICTED _____ FROM _____ TO _____ QUALITY RELATED _____
 NON-SAFETY RELATED _____

II. DESCRIPTION: and 2.10, OAP-109.1
Added new reference 2.10, STP-391.006 Revised and reordered
5.3.1.H.1.a through 5.3.1.H.3.a, 8) Revised 6.1, Records Deleted
STP-391.003 from references Added SAP-1122 to references section Added 4.1
 REASON FOR CHANGE: inadvertently omitted in previous revisions/changes clarification
provided and placed in the order they are performed Changed ONO to CER
Procedure was deleted Added since CER is mentioned in Section 6.0 Personnel Safety
 Originator: Schwartz / R.J. Schwartz Sign/Print: _____

III. WILL THIS REVISION/CHANGE/NEW PROCEDURE:

	YES	NO	N/A
1. Result in significant increased personnel radiation exposure? (ALARA review)	_____	<input checked="" type="checkbox"/>	_____
2. Result in a release of effluents to the Environment?	_____	<input checked="" type="checkbox"/>	_____
3. Degrade the effectiveness of the Radiation Emergency Plan?	_____	_____	<input checked="" type="checkbox"/>
4. Degrade the safeguards effectiveness of the Physical Security, Safeguards Contingency of Training and Qualification Plans?	_____	_____	<input checked="" type="checkbox"/>

* If any question 1 through 4 is answered "YES", refer to appropriate section of procedure for direction.

REQUIRED REVIEW AND COMMENT: (X) NFOE

REQUESTED REVIEWS:

<input type="checkbox"/> MOPS	<input type="checkbox"/> MHPS	<input type="checkbox"/> GMNPO	<input type="checkbox"/> QA	<input type="checkbox"/> TU	<input type="checkbox"/> ISD	<input checked="" type="checkbox"/> GMNSS
<input type="checkbox"/> MMS	<input type="checkbox"/> MDE	<input type="checkbox"/> GMES	<input type="checkbox"/> QC	<input type="checkbox"/> CHS	<input type="checkbox"/> RC	<input checked="" type="checkbox"/> QA
<input type="checkbox"/> MQS	<input type="checkbox"/> MNT	<input type="checkbox"/> GMNSS	<input type="checkbox"/> SAS	<input checked="" type="checkbox"/> MHP	<input checked="" type="checkbox"/> QR	<input type="checkbox"/>
<input type="checkbox"/> MPSE	<input type="checkbox"/> MNL&OE	<input type="checkbox"/> GMSPD	<input type="checkbox"/> MNTS	<input type="checkbox"/> PSE	<input checked="" type="checkbox"/> Scott Mills	<input type="checkbox"/>
<input type="checkbox"/> MCHS	<input type="checkbox"/> MNPS	<input checked="" type="checkbox"/> KOPS	<input checked="" type="checkbox"/> NPS	<input type="checkbox"/> DE	<input checked="" type="checkbox"/> Schwartz	<input type="checkbox"/>

Discipline Supervisor: _____ Date: 4/28/98

IV. 10CFR50.59 SCREENING REVIEW/SAFETY EVALUATION
 REQUIRED EXEMPT PSRC SUPPORTING DOCUMENT: 10CFR50.54g
 Discipline Supervisor Concurrence: _____

V. TEMPORARY APPROVAL:

QUALIFIED REVIEWER _____ DATE _____ QA REVIEW _____ DATE _____
 TELECON BY _____ TELECON BY _____
 SHIFT SUPERVISOR _____ DATE _____ FINAL APPROVAL REQUIRED BY: DATE _____

VI. DISCIPLINE SUPERVISOR FINAL REVIEW:

PSRC REVIEW PRIOR TO IMPLEMENTATION? YES _____ NO

TRAINING REQUIRED? YES _____ NO

IF YES, PRIOR TO PROCEDURE IMPLEMENTATION? YES _____ NO _____

P/CAP AFFECTED? YES _____ NO

COMMENTS RESOLVED: _____
 Discipline Supervisor: _____ Date: 6/16/98

VII. P/CAP ACCEPTABLE?
 C. YES _____ NO N/A Date _____
 N. YES _____ NO N/A Date _____
 RESP. MGR. _____ Date _____

VIII. FINAL QA REVIEW (As Applicable)
 QA Concurrence: _____ Date _____

IX. APPROVAL AUTHORITY: N/A
 Training Completed: _____ Date _____
 Procedure Approval/Concurrence: _____ Date 7/2/99

X. PSRC REVIEW:

A. REVIEWED BY:
 PSRC Chairman: _____ Date _____
 COMMENTS: YES _____ NO _____

B. PSRC COMMENTS RESOLVED:
 Responsible Manager: _____ Date _____
 PSRC Chairman: _____ Date _____

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ATTACHMENTS

ATTACHMENT I- Seismic Event Control Room Observations

ATTACHMENT II Tomado Shelters

ATTACHMENT III Hurricane Preparation Checklist

| Change C

1.0 PURPOSE

- 1.1 To provide guidelines for initiating actions when a tornado, hurricane, earthquake, or Fairfield Hydro Dam failure threatens plant structures or personnel.

2.0 REFERENCES

- 2.1 FSAR Section 3.0.
- 2.2 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans & Preparedness in Support of Nuclear Power Plants.
- 2.3 10CFR50.54(x) and 10CFR50.54(y).
- 2.4 10CFR50.72(b).
- 2.5 Emergency Action Plan, Fairfield Pumped Storage Facility.
- 2.6 Emergency Planning Telephone Directory.
- 2.7 Virgil C. Summer Nuclear Station General Operating Procedures.
- 2.8 Virgil C. Summer Nuclear Station Radiation Emergency Plan.
- 2.9 EPP-001, Activation and Implementation of the Emergency Plan.
- 2.10 EPP-002, Communication and Notification.
- 2.11 EPP-012, Onsite Personnel Accountability and Evacuation.
- 2.12 ES-426, Earthquake Response Procedure.
- 2.13 ICP-391.007, Solid-State Accelerograph.
- 2.14 STP-391.001, Seismic Monitoring System Triaxial Time History Accelerograph.
- 2.15 STP-391.005, Seismic Monitoring System Triaxial Response Spectrum Recorders.
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- 2.16 STP-391.006, Seismic Monitoring System Triaxial Response-Spectrum Recorder (IYM01783) Annunciator Switch Calibration. | Chg A
- 2.17 SAP-1131, Electronic Processing of Condition Evaluation Reports. | Chg A and B
- 2.18 OAP-109.1, Guidelines for Severe Weather. | Chg A

3.0 DEFINITIONS

3.1 Definitions

- 3.1.1 Tornado Watch - declared by the National Weather Service when meteorological conditions in an area are such that the potential for the formation of tornadoes exists.
- 3.1.2 Tornado Warning - declared by the National Weather Service when a tornado has been sighted (radar sighting, verified visual observation).
- 3.1.3 Emergency Repair Team - a team consisting of Operations personnel, Health Physics personnel and/or Maintenance personnel, as necessary, dispatched by the OSC.
- 3.1.4 Hurricane Watch - declared by the National Weather Service when conditions are favorable for a hurricane to enter land in the area.
- 3.1.5 Hurricane Warning - declared by the National Weather Service when it is imminent for a hurricane to enter land in the area.

4.0 CONDITIONS AND PREREQUISITES

- 4.1 Personnel safety should be considered in the decision making process for evacuation in the event of severe weather or earthquake.
- 4.2 Refer to OAP-109.1, Guidelines for Severe Weather for additional guidance on actions for severe weather.

Chg A

5.0 PROCEDURE

5.1 Tomadoes

5.1.1 Tomado Warning with Imminent Danger to the Site

- A. The following are Shift Supervisor actions when a tornado has been observed within the site boundary or information has been received from the Load Dispatcher, National Weather Service, or some other credible source, that a tornado is approaching the site boundary. The Shift Supervisor shall:

1. Make the following announcement over the plant paging system:

Attention all personnel. A tomado is on (or approaching) the site. Take cover immediately.

2. Sound the fire alarm.
3. Repeat the announcement.
4. Refer to EPP-001, Activation and Implementation of the Emergency Plan, and declare the appropriate emergency classification when the initiating conditions are met.
5. When the tomado has passed consider performing accountability of personnel in accordance with EPP-012.
6. When it is safe to do so, make a plant announcement to resume normal activities.
7. Initiate damage assessments of the Nuclear Exclusion Area.

Chg
C

B. Site Personnel Actions for a Tomado Warning with Imminent Danger

1. When the announcement is made to take cover immediately, seek protection in the nearest tomado shelter shown on Attachment II, or in an interior room of a building, away from windows and under a desk or other object that can afford protection. If outside, lie face down in a ditch, gully, culvert, or other low spot in the ground.

5.1.2 Tomado Warning with No Imminent Danger

- A.** The following are Shift Supervisor actions when information is received from the Load Dispatcher or the National Weather Service that a Tomado Warning is in effect for Newberry, Fairfield, Lexington, or Richland Counties with no imminent danger to the site. The Shift Supervisor shall inform the Emergency Director and:

1. Direct Security and appropriate Operators to monitor weather conditions and report degrading conditions to the Control Room immediately.
2. Dispatch personnel to accomplish the following:
 - a. Shut all exterior doors to plant buildings.
 - b. Secure equipment/materials in the Protected Area (PA) that could become missiles in high winds.
 - c. Secure heavy equipment in a safe condition (i.e., lowering crane booms).
 - d. If time permits, secure equipment/materials in the area outside the PA.
3. If weather conditions warrant advanced protective measures be taken to protect personnel, such as a tornado sighted in an adjacent county and moving toward the site, perform the following:
 - a. Make the following announcement over the plant paging system:

Attention all personnel. The site is under a Tomado Warning. There is no imminent danger. All personnel are to proceed to a designated tomado shelter. There is no imminent danger.

- b. Sound the fire alarm.
 - c. Repeat the announcement.
-

- d. If notified by Security that weather conditions have degraded to the point where rapid access to tornado shelters within the PA is needed to prevent personal injury, the Shift Supervisor may authorize the Security Team Leader to suspend security measures for PA access. Notify the NRC within one hour.
- B. Site Personnel Actions for a Tornado Warning with No Imminent Danger. When the announcement is made to proceed to a tornado shelter, perform the following:
1. Do not leave the site.
 2. Stay calm.
 3. Proceed to the closest tornado shelter. Designated tornado shelters are shown on Attachment II.
 4. Work groups should attempt to stay together to facilitate accountability. Work groups should escort visitors and personnel. Supervisors should account for their employees and visitors.
 5. If a tornado is near while traveling to a tornado shelter, seek protection in an interior room of a building, away from windows and under a desk or another object that can afford protection. If outside, lie face down in a ditch, gully, culvert, or other low spot in the ground.
 6. As personnel move into tornado shelters, supervisors shall assess capacity of the shelter and redirect personnel, as necessary, to other areas, including the Radiation Controlled Area.
- C. The following are Shift Supervisor actions when a tornado has been observed within the site boundary or information has been received from the Load Dispatcher, National Weather Service, or some other credible source, that a tornado is approaching the site boundary. The Shift Supervisor shall:
-
1. Make the following announcement over the plant paging system:

Attention all personnel. A tomado is on (or approaching) the site. Take cover immediately.

2. Sound the fire alarm.
3. Repeat the announcement.
4. Refer to EPP-001, Activation and Implementation of the Emergency Plan, and declare the appropriate emergency classification when the initiating conditions are met.
5. When the tomado has passed consider performing accountability of personnel in accordance with EPP-012.
6. When it is safe to do so, make a plant announcement to resume normal activities.
7. Initiate damage assessments of the Nuclear Exclusion Area.

Chg
C

5.1.3 Upon cancellation of the Tomado Warning, the Shift Supervisor should make the appropriate announcement over the plant paging system to resume normal activities.

5.1.4 Tomado Watch: When information is received from the Load Dispatcher or the National Weather Service that a Tomado Watch is in effect for Newberry, Fairfield, Lexington, or Richland Counties, the Shift Supervisor should direct Security and appropriate Operators to monitor weather conditions and report degrading conditions to the Control Room immediately.

5.2 Hurricane

NOTE 5.2.1

When a Hurricane Watch is declared for the coast of South Carolina, no actions are required by this procedure.

- 5.2.1 When a Hurricane Warning is declared for the coast of South Carolina and high winds are forecast for the Columbia area, ESU will begin hurricane preparations as outlined on Attachment III.
- 5.2.2 The Shift Supervisor shall refer to EPP-001, Activation and Implementation of the Emergency Plan, and declare the appropriate emergency classification when initiating conditions are met.
- 5.2.3 Upon cancellation of the Hurricane Warning by the National Weather Service or other reliable source, the Control Room shall make the appropriate announcement over the plant paging system to resume normal activities and initiate damage assessments of the Nuclear Exclusion Area.

Chg
C

5.3 Earthquake

- 5.3.1 In the event a seismic disturbance is observed, either physically or by Control Room seismic instrumentation, the SS shall:
 - A. Inform the Emergency Director.
 - B. Initiate the appropriate corrective actions for any resulting damage.
 - C. Evaluate the available seismic information. Refer to EPP-001, Activation and Implementation of the Emergency Plan, and declare the appropriate emergency classification when initiating conditions are met.
 - D. Notify Design Engineering.
 - E. Direct the Shift Engineer to complete Attachment I as soon as possible and forward it to Design Engineering. Include printout from XPN-6041-EI, Seismic Monitoring System (Relay Room), with this package.
 - F. Ensure all Control Room seismic annunciators are reset as soon as possible for recording aftershocks.

G. If the Operating Basis Earthquake (OBE) has been met or exceeded, shutdown the plant in accordance with GOP-4 and GOP-5 after a functional review is made to ensure the plant can be safely shutdown using the following criteria:

1. Conduct the shutdown in an orderly manner, i.e., the plant functions should be checked prior to initiating shutdown.
2. Verify functionality of heat removal systems and supporting components and systems required for shutdown.
3. Initiate shutdown using plant operating procedures.

Chg
B

H. Immediately contact duty I&C personnel to retrieve seismic data and calibrate instruments as outlined below:

1. Level 1 Seismic Event (No Control Room Annunciation)

a. Using applicable portions of ICP-391.007 retrieve data from the following instruments and restore within 24 hours of the event:

- 1) IYM01792A.
- 2) IYM01792B.

2. Level 2 Seismic Event (Control Room Annunciation < OBE)

a. On the instruments below, perform the following:

- 1) IYM01780: Using STP-391.001 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event using STP-391.001.
- 2) IYM01784: Using STP-391.001 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event using STP-391.001.
- 3) IYM01783: Using STP-391.005 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event, using STP-391.005 and STP-391.006.
- 4) IYM01792A: Using ICP-391.007 retrieve data and restore within 24 hours of the event.

Chg
A

- 5) IYM01792B: Using ICP-391.007 retrieve data and restore within 24 hours of the event.

3. Level 3 Seismic Event (Control Room Annunciator > OBE).

a. On the instruments below, perform the following:

- 1) IYM01780: Using STP-391.001 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event using STP-391.001.
- 2) IYM01784: Using STP-391.001 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event using STP-391.001.
- 3) IYM01783: Using STP-391.005, retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event, using STP-391.005 and STP-391.006.
- 4) IYM01785: Using STP-391.005 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event using STP-391.005.
- 5) IYM01786: Using STP-391.005 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event, using STP-391.005.
- 6) IYM01787: Using STP-391.005 retrieve data and restore within 24 hours of the event. Perform calibration within 5 days of the event, using STP-391.005.
- 7) IYM01792A: Using ICP-391.007 retrieve data and restore within 24 hours of the event.
- 8) IYM01792B: Using ICP-391.007 retrieve data and restore within 24 hours of the event.

- I. If evacuation of the site is required, implement EPP-012, Onsite Personnel Accountability and Evacuation.
- J. Design Engineering shall analyze the data and inform the Emergency Director of the results as quickly as possible.

Chg
A

- 5.4 Failure or potential failure of Fairfield Pumped Storage Facility Dam(s).
- 5.4.1 Failure or potential failure of the dam(s) may be a result of the natural emergencies described in this procedure or may occur from unrelated causes.
- 5.4.2 The Control Room will receive notification from Fairfield Pumped Storage Facility when their Emergency Action Plan is activated. The message will include the type or emergency situation, as follows:
- A. Class I - Failure is imminent or has occurred.
- B. Class II - Potentially hazardous situation is developing.
- 5.4.3 Upon receipt of either of the above notifications, the Control Room should advise the Emergency Director.
- 5.4.4 The Load Dispatcher or Fairfield Pumped Storage Facility may be called for amplifying information.
- 5.4.5 Place the plant in a safe condition as dictated by the magnitude of the hazard.

6.0 RECORDS

- 6.1 Forward written material or copies of written material generated because of an emergency to the Emergency Services Unit (ESU). The ESU will insure appropriate written material is included in the applicable Condition Evaluation Report.

Chg A
and B

7.0 REVISION SUMMARY

- 7.1 Deleted Section 3.2, Abbreviations. Uncommon abbreviations are defined the first time they are used.
- 7.2 Replaced the Earthquake Response Manual in Reference 2.6 which was deleted, with ES-426, Earthquake Response Procedure and renumbered references.
- 7.3 Made various typographical, grammatical, and format corrections and clarifications.
- 7.4 Revised Sections 5.3.1.D, 5.3.1.G.1.b, 5.3.1.G.2.b, and 5.3.1.G.3.b to delete the unnecessary step of routing documentation for a seismic event through the Manger, Operations.
- 7.5 Deleted previous steps 5.3.1.G.1.a.2, 5.3.1.G.2.a.2, 5.3.1.G.3.a.2, due to these instruments not being addressed in ES-426. Removed previous step 5.3.1.G.3.a.5)a) due to the instrument being removed in RF-8.
- 7.6 Revised Section 6.0, Records, to match the format of other Emergency Plan Procedures.

SEISMIC EVENT CONTROL ROOM OBSERVATIONS
MAIN FRONT PANEL STATUS

Indicate with an "X" in the appropriate box the lamps that are lit on the RX BLDG
 FOUNDATION MATT DETECTOR IYA 1780 P.O. SN-10253.

2/3 OBE YELLOW	OBE RED	2/3 OBE YELLOW	OBE RED	2/3 OBE YELLOW	OBE RED	NOMINAL FREQUENCY (Hz)
<input type="checkbox"/>	2					
<input type="checkbox"/>	2.5					
<input type="checkbox"/>	3.2					
<input type="checkbox"/>	4					
<input type="checkbox"/>	5					
<input type="checkbox"/>	6.4					
<input type="checkbox"/>	8					
<input type="checkbox"/>	10.1					
<input type="checkbox"/>	12.7					
<input type="checkbox"/>	16					
<input type="checkbox"/>	20.2					
<input type="checkbox"/>	25.4					

NORTH/SOUTH
HORIZONTAL SHOCK

VERTICAL SHOCK

EAST/WEST
HORIZONTAL SHOCK

ALARMS NOT LIT _____

TIME _____

DATE _____

INITIALS _____

SEISMIC EVENT CONTROL ROOM OBSERVATIONS
MAIN CONTROL BOARD ANNUNCIATOR PANEL

Indicate with an "X" in the appropriate box the Annunciators on panel XCP-638 on the Main Control Board which alarms.

- RB FOUND SEIS SWITCH OBE EXCEED (Panel 3-5)
- SEIS RCDR SYS START/PWR LOSS (Panel 3-6)
- SEIS RESPNS SPECTRUM ANNUN TRBL (Panel 4-6)
- No Alarms Lit

		RB FOUND SEIS SWITCH OBE EXCEED			
		SEIS RCDR SYS START/ PWR LOSS	SEIS RESPNS SPECTRUM ANNUN TRBL		

TIME _____ DATE _____ INITIALS _____

TORNADO SHELTERS

*NOTE: In addition to the areas shown, interior, first floor rooms provide a substantial degree of protection.

<u>Site Area</u>	<u>Designated Tornado Shelter</u>	
Craft/Technical Training Center (CTC)	CTC Records Vault	
Warehouse A Warehouse B	CTC Records Vault or NOB Records Vault or NOB Receiving Area	Chg C
Nuclear Operations Building (NOB) Security Building Fitness and Wellness Center	NOB Records Vault or NOB Receiving Area	
Civil Shop, Carpenter Shop, Metal Shop, Pipe Shop, Warehouse F, Vehicle Maintenance Shop and other adjacent buildings	NOB Records Vault or NOB Receiving Area	
Service Building I & C Shop	Control Bldg., 436' Elevation -	
Auxiliary Service Building Operations Support Center (OSC)	Control Bldg., 448' Elevation -	
Protected Area Yard Warehouse C and Adjacent Buildings	Control Bldg., 436' Elevation - I & C Shop	Chg C
Rad Maintenance Building Fuel Handling Building	Auxiliary Building	
Hot Warehouse NDE Radiography Laboratory	Control Bldg., 448' Elevation - Operations Support Center (OSC)	

Hurricane Preparation Checklist

Responsibility	Action	Status
ESU	Develop and distribute schedule for hurricane preparation status meetings.	
	Provide information to plant staff on a frequent basis via Voice Mailbox 3456 or some other means.	
	Consult with the GMNPO to determine the level of staffing needed based on storm projections. Develop and distribute schedule for duty and relief ERO teams. Include list of items to bring. Consider some ERO personnel may have volunteered for Company Storm Response Teams.	
	Consult with the VP and General Managers to determine if a temporary generator needs to be leased for the NTC or other locations. Communicate the decision to M&P.	
	Determine whether the Primary or Backup EOF will be used. Consider expected severity of road conditions and reliability of power to the NTC.	
	Determine whether the Radiopagers or the Call Tree will be used for notification of the ERO for a declared emergency,	
	Assist Operations with tracking the path of the storm and monitoring the inland wind projections.	
	Obtain satellite and cell phones with spare batteries for the TSC and EOF.	
	Contact counties and request notification of tornado warnings for our area.	
	Develop a list of non-perishable food and supplies for extended ERF staffing and deliver to M&P.	
	Review FEMA and NRC documents ,including IN 97-05, pertaining to plant restart following damage to EWSS. Contact Electrical Shop and the Radio Shop to begin planning for restoration work.	
	Review reportability requirements and communications procedures for EWSS degradation with Operations, located in NL-122.	
	Operations	Track the path of the storm and monitor the inland wind projections.
Determine plant shutdown time per AOP-109.1.		
Assess electrical distribution capability and suspend any operations or maintenance that may degrade the system.		
Evaluate the adequacy of DG Fuel inventory.		

Responsibility	Action	Status
Operations	Determine the need for alternate power sources.	
Operations Facilities Maintenance Security	Secure missile hazards over entire site and determine and implement building protection measures.	
Materials & Procurement	Arrange for delivery of an emergency generator for the NTC, if necessary.	
	Arrange for delivery of alternate power sources for other locations, if necessary.	
	From a list provided by ESU, procure and stage non-perishable food and supplies for extended ERF staffing.	
Nuclear Training	Prepare NTC for families and distribute information.	
ISD	Distribute information concerning protecting computer equipment.	
Administrative Services	Provide coffee in the facilities.	
Nuclear Protection Services	Distribute information on vehicle parking.	
	Enable local TV stations on CCTV	