

**To** : NRC NRC  
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**Date/Time** : 05/01/2013 15:36 Transmittal Group Id: 0000077643  
**Trans No.** : 000538009 Title:  
**Total Items:** 00004

## PASSPORT DOCUMENT

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0002	CR3	POM	EMG	EM0220A		ACTIVE	000			H	01
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Reference Use

CRYSTAL RIVER UNIT 3  
EMERGENCY PREPAREDNESS PROCEDURE  
NON-SAFETY RELATED  
**EM-220**

**VIOLENT WEATHER**

REVISION 52

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REVISION SUMMARY
PRR 591385 DESCRIPTION
<p><b>NOTE:</b></p> <ol style="list-style-type: none"> <li>1. Writers and Reviewers: Ensure any changes to this procedure that affect information contained in Emergency Respond Facility posters, enclosures, briefing cards, guidelines etc. are made to those items as well.</li> <li>2. Writers and Reviewers: Changes to certain parts of this procedure may impact other Emergency Plan Implementing Procedures.</li> </ol> <ul style="list-style-type: none"> <li>• Major re-write and re-format to PAS.</li> <li>• Based on the decision to decommission CR3, the original EM-220 is being split into a series of procedures (EM-220A through EM-220C) specific to each weather occurrence and streamlined, based on new staffing and station/equipment priorities. EM-220 will remain the parent document that drives the implementation of the new EM-220 series procedures.</li> <li>• Attachment 3, Steps 4.2.3, 4.3.3, 4.3.5, 4.4.3, 4.4.5: Annotated references to EP personnel associated with TSC/EOF staffing during hurricanes as "(as available)" per EP impact review comments. EP staff may have already located to the Citrus County EOC and EP staffing levels may not support staffing EOC, TSC and EOF.</li> <li>• Attachment 3, Steps 4.3.3, 4.4.3: Annotated reference to Warehouse/Procurement staff position in the TSC during hurricanes with "not part of TSC staff" per impact review comments and EP group concurrence. Warehouse/Procurement personnel are not qualified to ERO positions in the TSC.</li> </ul>

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## 1.0 PURPOSE

1. This procedure is an Emergency Plan Implementing Procedure (EPIP). Any revisions require a 50.54(q) screening for Emergency Plan impact.
2. When implemented by the Violent Weather Committee, this procedure directs the performance of the following event specific procedures and provides general information to assist in site response to violent weather:
  - EM-220A, Violent Weather (Coastal Flood Warning)
  - EM-220B, Violent Weather (Tornado Watch or Warning)
  - EM-220C, Violent Weather (Tropical Storm/Approaching Hurricane)
3. This procedure contains information to ensure plant safety by having necessary personnel, equipment, and supplies on hand.
4. Implementation of this procedure does **NOT** mean the Radiological Emergency Response Plan (RERP) has been entered.
5. This procedure ensures that the Violent Weather Committee is convened to discuss implementation of storm preparations if warranted by the potential size and direction of storm. **[R2]**
6. The Committee reconvenes as necessary based on hurricane advisory from National Hurricane Center to discuss actions and activities. **[R2]**

## 2.0 RESPONSIBILITIES

1. The Violent Weather Committee is made up of department managers, designees, and other assigned personnel who play a pivotal role in violent weather preparations and protective actions to safeguard the plant, plant equipment, and plant personnel in the event of violent weather.
2. The Violent Weather Committee members and their responsibilities are found in Attachment 1, Violent Weather Committee Function Responsibilities.
3. The names and phone numbers of personnel to contact for activation of the Violent Weather Committee are listed in Violent Weather Committee and Volunteer Phone Directory, maintained on the Emergency Preparedness Web Page.

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## 2.0 RESPONSIBILITIES (continued)

4. PGM or designee coordinates CR3 response during preparation for a hurricane or other violent weather warranting activity of Violent Weather Committee and ensures EM-220 documents these activities.
5. PGM or Emergency Coordinator (EC) may commence recovery activities when conditions are forecast to remain clear. A Hurricane Center update is **NOT** required.
6. The Shift Manager (SM) or designee is responsible for the overall implementation of this procedure.
7. The administration and implementation of this procedure usually takes place in the Work Control Center.
8. EC ensures implementation of EM-202, Duties of the Emergency Coordinator, in conjunction with implementation of this procedure.

## 3.0 PREREQUISITES

None

## 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES

1. EM-202, Enclosure 1 references Emergency Action Levels to consider during violent weather.

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**5.0 SPECIAL TOOLS AND EQUIPMENT**

None

**6.0 ACCEPTANCE CRITERIA**

None

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## 7.0 INSTRUCTIONS

### 7.1 Plant Manager (PGM)

1. IF Citrus County, Levy County or Hernando County are within the storm track for an Approaching Tropical Storm or Hurricane, **THEN** NOTIFY NRC Resident of planned Violent Weather Committee Meeting **AND** CONVENE the Violent Weather Committee [R3] ..... N/A ☐ ☐

### 7.2 Shift Manager (SM)

#### NOTES

Required actions for recovery from violent weather are contained in the respective event response procedures.

1. IF Coastal Flooding is expected **OR** is occurring, **THEN** PERFORM EM-220A, Violent Weather, (Coastal Flood) ..... N/A ☐ ☐
2. IF a Tornado Watch or Tornado Warning is in effect for Citrus County **OR** report of a tornado on site has been received, **THEN** PERFORM EM-220B, Violent Weather, (Tornado) ..... N/A ☐ ☐
3. IF Hurricane Watch is issued for Citrus County, Levy County or Hernando County for an Approaching Tropical Storm or Hurricane, **THEN** PERFORM the following: ..... N/A ☐ ☐
  - REVIEW Attachment 1, Violent Weather Committee Function Responsibilities ..... ☐
  - REVIEW Attachment 3, Employee Considerations Before, During, And After Storm ..... ☐
  - REVIEW Attachment 4, CR3 Emergency Information Line ..... ☐
  - PERFORM EM-220C, Violent Weather (Tropical Storm/Approaching Hurricane) ..... ☐



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## 8.0 RECORDS

1. None

## 9.0 REFERENCES

### 9.1 Developmental References

1. EM-202, Duties of the Emergency Coordinator
2. FSAR Sections 1.9.7; 2.4.2.4; 2.4.2.4.1; 9.3.2; 9.6.2.7;
3. Radiological Emergency Response Plan
4. CR3 Safeguards Contingency Plan
5. AI-574, Sea Grass or Debris Influx Plan
6. AI-4000, Conduct of Emergency Preparedness and Schedule for Radiological Emergency Response Plan Maintenance
7. EM-102, Operation of the Technical Support Center (TSC)
8. EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building
9. SS-206, Security Safeguard Contingency Events
10. **[R1]** CAPR# 169029-04, Longstanding Water in EDG-1A Fuel Oil Storage Tank
11. **[R2]** NOCS 40350
12. **[R3]** NOCS 40348

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## 10.0 DEFINITIONS

1. **CR3 location:** Latitude 28.9N, Longitude 82.7W
2. **Coastal Flood Warning:** CR3 begins flood preparations when National Weather Service reports a storm surge of greater than 4 feet above mean (normal) high tide. This occurs when the Ultimate Heat Sink is projected to reach a high level of approximately 96 feet.
3. **Tornado:** Violently rotating column of air in contact with the ground which usually develops from severe thunderstorms or hurricanes.
4. **Tornado Watch:** Alerts an area of the possibility of a tornado and usually lasts for 2 to 4 hours.
5. **Tornado Warning:** Issued when a tornado has been sighted in the area. The Tornado Warning area is usually smaller than the area for which a Watch is declared.

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## 10.0 DEFINITIONS (continued)

### NOTES

- Definitions below are listed in ascending order of severity level of storm category
- Actual storm size/category shall be determined from information provided by the National Weather Service (NWS) or the National Hurricane Center (NHC), as opposed to local wind speed indications at the site.

6. **Tropical Storm:** Weather disturbance of large size with winds of 39 to 73 mph, rotating in a counterclockwise direction, accompanied by torrential rains and an area of low barometric pressure.

- Potential Tropical Storm:** Tropical storm conditions are possible at CR3 within 36 hours.
- Approaching Tropical Storm:** Tropical storm conditions are expected at CR3 in 12 to 24 hours.

7. **Hurricane:** Weather disturbance of large size with winds equal to or greater than 74 mph, rotating in a counterclockwise direction, with a well defined low barometric pressure center, called the EYE.

- Potential Hurricane:** Hurricane conditions are possible at CR3 within 36 hours.
- Approaching Hurricane:** Hurricane conditions are expected at CR3 within 24 hours.
- Storm Category:** Storms are categorized by the National Weather Service (NWS) and the National Hurricane Center (NHC) based on expected wind speeds. The table below is Information Only.

Storm Category	Wind Speed (mph)
Tropical Storm	39 – 73
1	74 – 95
2	96 – 110
3	111 – 129
4	130 – 156
5	≥ 157

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## 10.0 DEFINITIONS (continued)

- d. **Hurricane Watch:** Per the National Hurricane Center, a Hurricane Watch is defined as follows:
- An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are possible within the specified area in association with a tropical, subtropical, or post-tropical cyclone.
  - Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued **48 hours** in advance of the anticipated onset of tropical storm force winds.
- e. **Hurricane Warning:** Per the National Hurricane Center, a Hurricane Warning is defined as follows:
- An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are expected somewhere within the specified area in association with a tropical, subtropical, or post-tropical cyclone.
  - Because hurricane preparedness activities become difficult once winds reach tropical storm force, the warning is issued **36 hours** in advance of the anticipated onset of tropical storm force winds. The warning can remain in effect when dangerously high water or a combination of dangerously high water and waves continue, even though winds may be less than hurricane force.

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**ATTACHMENT 1**

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## **Violent Weather Committee Function Responsibilities**

### **NOTES**

- The following positions are Violent Weather Committee members and are responsible for keeping the SM or designee informed of preparation status and ensuring appropriate actions of EM-220 series procedures are completed.
- All Violent Weather Committee members should review the Violent Weather Committee/Volunteer phone directory located on the Emergency Preparedness Web page to ensure information is up to date.

**1. Plant General Manager (PGM) or designee:**

- Maintains the overall responsibility for this procedure and the Violent Weather Committee.
- Establishes an account code for storm preps.
- Coordinates CR3 response during preparation for a hurricane or other violent weather warranting activation of Violent Weather Committee and ensures performance of the EM-220 series procedures to document these activities.

**2. Manager, Operations:**

- Ensures Operations personnel are available to carry out appropriate emergency functions per EM-202 and violent weather preparations contained in the applicable EM-220 series procedures.

**3. Manager, Maintenance:**

- Ensures Maintenance personnel are available to carry out violent weather preparations contained in the applicable EM-220 series procedures.
- Ensures scheduling and switchyard activities are carried out as identified in the applicable EM-220 series procedures.
- Ensures Major Projects personnel are available to carry out violent weather preparations contained in the applicable EM-220 series procedures.

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### **Violent Weather Committee Function Responsibilities**

4. **Supervisor, Supply Chain:**
  - Ensures warehouse personnel are available to carry out violent weather preparations as identified in the applicable EM-220 series procedures.
5. **Manager, Nuclear Security (MNS):**
  - Ensures Security personnel are available to carry out violent weather preparations as identified in this procedure.
6. **Manager, Engineering:**
  - Verifies operability and availability of communications equipment as identified in this procedure.
  - Ensures Nuclear Information Technology (NIT) personnel are available to carry out violent weather preparations contained in this procedure.
7. **Supervisor, Emergency Preparedness:**
  - Acts as county and state liaison.
8. **Manager, Radiation Protection/Environmental and Chemistry:**
  - Ensures Chemistry personnel are available to carry out violent weather preparations contained in this procedure.
  - Ensures Radiation Protection personnel are available to carry out violent weather preparations contained in this procedure.

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**Violent Weather Committee Function Responsibilities**

9. The following table identifies the applicable sections of EM-220A, EM-220B and EM-220C that individual organizations are responsible for implementing during a weather event.

Responsible Organization/Individual	Applicable sections of EM-220A, Violent Weather (Coastal Flood Warning)	Applicable sections of EM-220B, Violent Weather (Tornado Watch or Warning)	Applicable sections of EM-220C, Violent Weather (Tropical Storm/Approaching Hurricane)
Plant General Manager	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 1.0</li> <li>Attachment 4, Section 15.0 (Section 15.0 is performed by the EOF Administrative Assistant, when directed by the PGM)</li> </ul>
Operations	<ul style="list-style-type: none"> <li>Attachment 1</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 2</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 2.0</li> </ul>
Maintenance	<ul style="list-style-type: none"> <li>Attachment 2</li> <li>Attachment 4</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 3</li> <li>Attachment 5</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 3.0</li> <li>Attachment 4, Section 4.0</li> <li>Attachment 4, Section 5.0</li> <li>Attachment 4, Section 6.0</li> <li>Attachment 4, Section 13.0</li> <li>Attachment 4, Section 16.0</li> <li>Attachment 5</li> </ul>
Supply Chain Supervisor	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 11.0</li> </ul>
Engineering	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 10.0</li> <li>Attachment 4, Section 14.0</li> </ul>
RP/Chemistry	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 7.0</li> <li>Attachment 4, Section 8.0</li> </ul>
Security	<ul style="list-style-type: none"> <li>Attachment 3</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 9.0</li> </ul>
Emergency Preparedness	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Attachment 4, Section 12.0</li> </ul>

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ATTACHMENT 2

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### Plant Elevation Data

#### NOTE

- All elevations are referenced to PLANT Datum Point. **[R1]**
- The height listed in feet is added or subtracted from the MLW level and the Storm Surge is then added to the resultant amount.
  - Example Calculation for high tide level of 4' with a storm surge of 3-5':
    - $4' + 88' = 92'$
    - $92' + (3' \text{ to } 5') = 95' \text{ to } 97'$

GENERAL PLANT DATA	PARAMETER	ELEVATION
	Mean High Tide (Normal for CR3)	92' 0"
	Ground Elevations Surrounding Plant	92' to 98'
	Maximum Hurricane Surge Level (Probable Maximum Hurricane) (FSAR 2.4.2.1)	121' 4"
	Mean Low Water Level (MLW) (FSAR 2.4.2.1)	88'
INTAKE	PARAMETER	ELEVATION
	Intake Structure Deck	99' 0"
	Intake Chamber Floor	67' 0"
	Minimum CW Pump Operating Level	81' 0"
	Minimum RW Pump Operating Level	73' 8"
	Intake Canal (minimum elevation)	Approximately 73'
DISCHARGE	PARAMETER	ELEVATION
	Discharge Wall (top)	99' 0"
	Spillway Crest (weir)	87' 0"
SUBSTATION AND SWITCHYARD	PARAMETER	ELEVATION
	CR3 500 kV ground elevation	98'
	CR3 500 kV Blockhouse floor	100' 6"
	CR-1&2 230 kV ground level	98'



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**Plant Elevation Data**

DISCHARGE	PARAMETER	ELEVATION
	Backup Meteorological Tower Base	99'
	CR3 Berm	118' 6"
	CR3 Watertight Wall (top)	129' 0"
	Technical Support Center (lowest flooring)	101' 6"
	Security Building	99'
	CR3 Parking Lot	97' 6"
	Issue Warehouse/Extension/Bottled Gas Storage Facility	98'
	Production Maintenance Warehouse	99'
	Railroad Tracks	98' 6"
	Access Road	97'
	Nuclear Administration Building	102' 6"
	Site Administration Building	102' 6"
	Cable Chase (east end of Discharge Canal)	98'
	RVCH Storage Building	97' 9"
	Once Through Steam Generator Storage Facility	97' 9"
	Cafeteria and Conference Building (CCB)	102' 6"

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### Plant Elevation Data

#### NOTES

- Asterisks (\*) denote points which share a common positive potential with the circuits to be isolated but are **NOT** necessarily in same geographic area.
- All elevations are referenced to PLANT Datum Point. [R1]

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	MTK-099	Intake Aux Bus 3 Fdr Bkr 3307 Autotrip	125vdc	AP 0601 and *0600
Annunciator	MTK-097	* Reactor Aux Bus B Breaker 3306 Overcurrent trip	125vdc	
Annunciator	MTK-103	Intake Aux Bus 3 Bkr 3308 Overcurrent trip	125vdc	AP 0604 and *0605
Annunciator	MTK-105	* 480V Heating Aux Bus 3 Bkr 3309 Autotrip	125vdc	
Annunciator	MTK-135	Intake Aux Bus 3 Tie Bkr 3397 Autotrip	125vdc	AP 0624 and *0625
Annunciator	MTK-137	* 480V Heating Aux Bus 3 Bkr 3399 Autotrip	125vdc	
Annunciator	MTK-154	Intake MCC 3 Bkr 3357 Open	125vdc	AP 0638 and *0639
Annunciator	MTK-155	* Turb Aux Vent MCC A Bkr 3363 Open	125vdc	
Annunciator	MTK-182	Intake Aux Bus 3A Undervoltage	125vdc	AP 0665 and *0664
Annunciator	MTK-181	* 480V Turb Aux Bus 3B PT Trouble	125vdc	
Annunciator	MTK-185	Intake Aux Bus 3B PT Trouble	125vdc	AP 0668 and *0669
Annunciator	MTK-186	* 480V Plant Aux Bus 3 Undervoltage	125vdc	
Annunciator	CWK-001	Circ Wtr Pump 1A Overload	125vdc	AP 0121 and *0120
Annunciator	CFK-016	* CF Tank 3B Level Low	125vdc	
Annunciator	CWK-059	CW Pumps Vibration High	125vdc	AP 2040 and *2041
Annunciator	SPK-001	* AMSAC Channel A Trip	125vdc	
Annunciator	CWK-044	CW Intake Control Air Failure	125vdc	AP 0156 and *0157
Annunciator	DHK-034	* BWST Low Oper. Level	125vdc	
Annunciator	MTK-072	Intake Aux XFMR A Fdr Bkr 3217 Autotrip	125vdc	AP 0584 and 0585
Annunciator	MTK-074	Intake Aux XFMR B Fdr Bkr 3218 Autotrip	125vdc	

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### Plant Elevation Data

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	MTK-183	Intake Aux Bus 3A PT Trouble	125vdc	AP 0666 and 0667
Annunciator	MTK-184	Intake Aux Bus 3B Undervoltage	125vdc	
Annunciator	MTK-100	Intake Aux Bus 3 Bkr 3307 Overcurrent Trip	125vdc	AP 0602 and 0603
Annunciator	MTK-102	Intake Aux Bus 3 Fdr Bkr 3308 Autotrip	125vdc	
Annunciator	MTK-221	Intake Aux XFMR A Temp High	125vdc	AP 0704 and 0705
Annunciator	MTK-222	Intake Aux XFMR B Temp High	125vdc	
Annunciator	CWK-003	Circ Wtr Pump 1A Trip	125vdc	AP 0122 and 0123
Annunciator	CWK-004	Circ Wtr Pump 1A Disch Pressure Low	125vdc	
Annunciator	CWK-009	Circ Wtr Pump 1B Trip	125vdc	AP 0126 and 0127
Annunciator	CWK-010	Circ Wtr Pump 1B Disch Pressure Low	125vdc	
Annunciator	CWK-023	Circ Wtr Pump 1D Lube Wtr Flow Low	125vdc	AP 0136 and 0137
Annunciator	CWK-006	Circ Wtr Pump 1A Disch Pressure High	125vdc	
Annunciator	CWK-032	Circ Wtr Pump 1A Lube Wtr Flow Low	125vdc	AP 0124 and 0125
Annunciator	CWK-007	Circ Wtr Pump 1B Motor Overload	125vdc	
Annunciator	CWK-011	Circ Wtr Pump 1B Lube Wtr Flow Low	125vdc	AP 0128 and 0129
Annunciator	CWK-013	Circ Wtr Pump 1C Motor Overload	125vdc	
Annunciator	CWK-012	Circ Wtr Pump 1B Disch Pressure High	125vdc	AP 0138 and 0139
Annunciator	CWK-018	Circ Wtr Pump 1C Disch Pressure High	125vdc	
Annunciator	CWK-015	Circ Wtr Pump 1C Trip	125vdc	AP 0130 and 0131
Annunciator	CWK-016	Circ Wtr Pump 1C Disch Pressure Low	125vdc	
Annunciator	CWK-017	Circ Wtr Pump 1C Lube Wtr Flow Low	125vdc	AP 0132 and 0133
Annunciator	CWK-019	Circ Wtr Pump 1C Motor Overload	125vdc	
Annunciator	CWK-102	Condenser Tube Cleaning Trouble	125vdc	AP 0791

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### Plant Elevation Data

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	CWK-021	Circ Wtr Pump 1D Trip	125vdc	AP 0134 and 0135
Annunciator	CWK-022	Circ Wtr Pump 1D Disch Pressure Low	125vdc	
Annunciator	CWK-024	Circ Wtr Pump 1D Disch Pressure High	125vdc	AP 0140 and 0141
Annunciator	CWK-025	Screen Wash Diff Det. Auto Start	125vdc	
Annunciator	CWK-026	Screen Wash Pump 1A Overload	125vdc	AP 0143 and 0142
Annunciator	CWK-027	Screen Wash Pump 1A Head Pressure Low	125vdc	
Annunciator	CWK-028	Screen Wash Pump 1B Overload	125vdc	AP 0144 and 0145
Annunciator	CWK-029	Screen Wash Pump 1C Overload	125vdc	
Annunciator	CWK-036	Intk Scr CWTS-1A Stopped Shear or Overload	125vdc	AP 0148 and 0149
Annunciator	CWK-037	Intk Scr CWTS-1B Stopped Shear or Overload	125vdc	
Annunciator	CWK-038	Intk Scr CWTS-1C Stopped Shear or Overload	125vdc	AP 0150 and 0151
Annunciator	CWK-039	Intk Scr CWTS-1D Stopped Shear or Overload	125vdc	
Annunciator	CWK-040	Intk Scr CWTS-1E Stopped Shear or Overload	125vdc	AP 0152 and 0153
Annunciator	CWK-041	Intk Scr CWTS-1F Stopped Shear or Overload	125vdc	
Annunciator	CWK-042	Intk Scr CWTS-1G Stopped Shear or Overload	125vdc	AP 0154 and 0155
Annunciator	CWK-043	Intk Scr CWTS-2 Stopped Shear or Overload	125vdc	

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### Plant Elevation Data

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINTS
PAX	CMP-422	Speaker Amp SA-3113	48VDC	- Box CM-1 Circuit CMP-420 Terminals 1, 3, 5, 7, 9, 11
PAX	CMP-423	Handset H-351	48VDC	
PAX	CMP-424	Speaker Amp SA-3113	48VDC	
PAX	CMP-425	Speaker S-3113	48VDC	
PAX	CMP-426	Speaker Amp SA-3112	48VDC	
PAX	CMP-427	Speaker S-3112	48VDC	- Box CM-3 Circuit CMP-422 Terminals 1 and 2, 5 and 6 (Will cut off CMP-422)
PAX	CMP-428	Speaker Amp SA-3114	48VDC	
PAX	CMP-429	Handset H-352	48VDC	
PAX	CMP-430	Speaker Amp SA-3114	48VDC	
PAX	CMP-431	Speaker S-3114	48VDC	
PAX	CMP-436	Speaker Amp SA-3114	48VDC	- Main Dst. Frame TB6-A Circuit CMP-432
PAX	CMP-437	Handset H-372	48VDC	
PAX	CMP-438	Speaker Amp SA-3142	48VDC	
PAX	CMP-439	Speaker S-3142	48VDC	
PAX	CMP-440	Speaker Amp SA-3112	48VDC	
PAX	CMP-468	Ringer TLS 351	48VDC	* All above terminals must be disconnected to isolate all Intake Structure PAX circuits
PAX	CMP-469	Ringer TLS 352	48VDC	
PAX	CMP-1489	H-351A & FTC Line	48VDC	
PAX	CMP-858	Speaker Amp SA-3115	48VDC	
PAX	CMP-859	Speaker S-3115	48VDC	
PAX	CMP-860	Handset H-353	48VDC	
PAX	CMP-861	Speaker Amp SA-3115	48VDC	
PAX	CMP-862	Ringer TLS 353	48VDC	

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### Plant Elevation Data

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	BREAKER/S
AC Circuits	MTMC-17	Intake MCC3 Feed	480VAC	3217 and 3218
AC Circuits	SAP-2	Service Air Compressor Power	480VAC	
AC Circuits	CWCR-1	Intake Gantry Crane Power	480VAC	
AC Circuits	CWP-2A,2B,2C	Screen Wash Pumps(all) Power	480VAC	
AC Circuits	CWM-1	CWP-1A Power	4160VAC	MTSW2A/3A9
AC Circuits	CWM-16	CWP-1B Power	4160VAC	MTSW2B/3B5
AC Circuits	CWM-31	CWP-1C Power	4160VAC	MTSW2A/3A10
AC Circuits	CWM-46	CWP-1D Power	4160VAC	MTSW2B/3B6
DC Circuits	MTE-14	CWP-1A Bkr Control	250VDC	DPDP4A/SW16
DC Circuits	MTE-14	Intake Aux Bus 3 Bkr 3307	250VDC	
DC Circuits	MTE-14	CW-53-PS	250VDC	
DC Circuits	MTE-14	Bkr 3358 Control	250VDC	
DC Circuits	MTE-14	Bkr 3347 Control	250VDC	
DC Circuits	MTE-15	Bkr 3308 Control	250VDC	DPDP4B/SW16
DC Circuits	MTE-15	CWP-1B Bkr Control	250VDC	
DC Circuits	MTE-15	CWP-1C Bkr Control	250VDC	
DC Circuits	MTE-15	CWCR-1 Bkr Control	250VDC	
DC Circuits	MTE-15	Bkr 3397 Control	250VDC	
DC Circuits	MTE-15	Bkr 3348 Control	250VDC	
DC Circuits	MTE-15	Intake Aux Bus 3 Undervoltage Relays	250VDC	
DC Circuits	MTE-15	Bkr 3357 Control	250VDC	

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### Plant Elevation Data

SWITCHYARD 101 ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	SBK-024	Primary trip from 500KV Sub	125VDC	AP 0825 and *0824
Annunciator	TB-1-X6	* Annunciator Events Recorder Cab. 6	125VDC	
Annunciator	SBK-032	Engineered Safeguards Bus "B" volts dropping	125VDC	AP 0828, 0829, *0830 and 0831
Annunciator	MTK-355	* 480V SWGR ES Bus 3A Unit 3A Bkr 3321	125VDC	
Annunciator	SBK-002	500KV Sub Low DC voltage	125VDC	
Annunciator	SBK-001	Loss of 500KV Sub Remote MUX	125VDC	AP 0844 and *0845
Annunciator	RCK-306	* Generated Megawatts Mismatch	125VDC	
Annunciator	SBK-092	Off-site Power source XFMR winding or oil temp HI	125VDC	AP 1423 and *1422
Annunciator	RCK-144	* Pp Seal & Motor cool Wtr. Flow Lo Pp 3b2	125VDC	
Annunciator	SBK-090	Pressure relief activated Off-site Power source XFMR	125VDC	AP 1337 and *1336
Annunciator	RCK-140	* RC Pp. 3B2 Motor vibration HI	125VDC	
Annunciator	SBK-087	Off-site Power source XFMR Low Oil Level	125VDC	AP 1527 and *1526
Annunciator	CHK-021	* CC. Chilled Wtr Exp. Tank Low Level	125VDC	
Annunciator	SBK-095	Bkr 4900 Low Gas Spring Charge	125VDC	AP 1883 and *1882
Annunciator	NIK-062	* Pwr/IMBAL/Flo Bistable Trip Bypassed SA-A	125VDC	
Annunciator	SBK-085	Off-site Power source XFMR Backup Protection	125VDC	AP 2043 and *2042
Annunciator	SPK-001	* ATWS Logic Cabinet	125VDC	
Annunciator	SBK-091	Off-site Power source Loss of XFMR cooling	125VDC	AP 0797 and *0796
Annunciator	RCK-306	* SG Oper. Level Loop B Mismatch	125VDC	
Annunciator	SBK-084	Off-site Power source XFMR Lockout Relays Loss of Pwr	125VDC	AP 1131 and *1130
Annunciator	ICK-024	* Reactor Limited by FW	125VDC	

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**Plant Elevation Data**

SWITCHYARD 101' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	SBK-096	Bkr 4902 Low Gas Spring Charge	125VDC	AP 1891and *1890
Annunciator	NIK-072	* Pwr/IMBAL/Flo Bistable Trip Bypassed SA-B	125VDC	
Annunciator	SBK-088	Off-site Power source Loss of Pri or Alt Aux AC Power	125VDC	AP 0496 and *0497
Annunciator	AHK-355	* Filter AHFL-1 High Diff. Pressure	125VDC	
Annunciator	SBK-094	230KV Bkr 4902 Autotrip	125VDC	AP 1030 and *1031
Annunciator	MUK-007	* MU&P Pp. 3A Motor Lube Oil Sym Pressure Low	125VDC	
Annunciator	SBK-086	230KV Bus "A" Diff Trip / 230KV Bus "B" Diff Trip	125VDC	AP 1103, 1104 and *1105
Annunciator	RCK-307	* Fuse Blown Panel NNI Cab 5 Row D	125VDC	
Annunciator	SBK-008	Cutout Switches 1 of 7 Open	125VDC	AP 0850 and *0851
Annunciator	ESK-083	* Loading Seq. Block 5	125VDC	
Annunciator	SBK-074	230KV Bkr 1692 Low Air Pressure on Low Pressure Sym	125VDC	AP 0856 and *0857
Annunciator	MTK-358	* BES.T Low Oil Level	125VDC	
Annunciator	SBK-082	XFMR Pri. Prot. Fault Off-site Power source	125VDC	AP 0777 and *0776
Annunciator	RCK-307	* SASS Transfer	125VDC	
Annunciator	SBK-017	Unit 5 Pri. Pilot Wire Relaying Alarm	125VDC	AP 0781and *0780
Annunciator	FWK-142	* Aux Fdwtr Pp. FWP-7 Overcurrent Alarm	125VDC	
Annunciator	SBK-018	Central FI TT & Line Relaying Alarm	125VDC	AP 0782 and *0783
Annunciator	RCK-305	* Δ Tc Mismatch	125VDC	
Annunciator	SBK-091	Off-site Power source Loss of XFMR Cooling	125VDC	AP 0797 and *0796
Annunciator	RCK-306	* SG OPER Level Loop B Mismatch	125VDC	
Annunciator	SBK-022	Bkr 1661 Tripped	125VDC	AP 0803 and *0802
Annunciator	RCK-306	* FW Temp Loop B Mismatch	125VDC	



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### Plant Elevation Data

SWITCHYARD 101' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	EVENT POINTS
Annunciator	SBK-023	Bkr 1662 Tripped	125VDC	AP 0804 and *0805
Annunciator	RCK-306	* FW Flow Loop B Mismatch	125VDC	
Annunciator	SBK-093	Bkr 4900 Autotrip	125VDC	AP 1132 and *1133
Annunciator	ICK-027	* Isol Vv Loop A FWV-35 Closed EF Req D	125VDC	
Annunciator	SBK-011	500KV Bkr 1891 Trouble	125VDC	AP 0839 and 0838
Annunciator	SBK-007	500KV Bkr 1660 Trouble	125VDC	
Annunciator	SBK-080	230KV Bkr 1692 Air Comp Trouble	125VDC	AP 0866 and 0867
Annunciator	SBK-020	Brookridge TT & Line Protection	125VDC	
Annunciator	SBK-010	500KV Sub Oscillograph	125VDC	AP 0832 and 0833
Annunciator	SBK-081	500KV Motor Operated Switch	125VDC	
Annunciator	SBK-083	230KV Bkr 4900 Fail to trip	125VDC	AP 0146 and 0147
Annunciator	SBK-083	230KV Bkr 4902 Fail to trip	125VDC	
Annunciator	SBK-079	230KV Bkr 1691 Open	125VDC	AP 0861 and 0860
Annunciator	SBK-078	230KV Bkr 1692 Ground Fault Bkr Failure	125VDC	
Annunciator	SBK-015	500KV Sub Seq. of Events Alarm	125VDC	AP 0843 and 0842
Annunciator	SBK-014	500KV Loss of Station Service	125VDC	
Annunciator	SBK-012	500KV Bkr Relay Sym Loss of DC Power	125VDC	AP 0840 and 0841
Annunciator	SBK-013	500KV Battery Charger Trouble	125VDC	
Annunciator	SBK-003	500KV Bkr 1661 Low Air Pressure	125VDC	AP 0834 and 0835
Annunciator	SBK-004	500KV Bkr 1661 Trouble	125VDC	
Annunciator	SBK-025	500KV Sub Alternate Trip	125VDC	AP 0826 and 0827
Annunciator	SBK-031	Engineered Safeguard Bus "A" Volts Dropping	125VDC	

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### Plant Elevation Data

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING#	VOLTAGE	ISOLATION POINTS
Annunciator	SBK-005	500KV Bkr 1662 Low Air Pressure		125VDC	AP 0836 and 0837
Annunciator	SBK-006	500KV Bkr 1662 Trouble		125VDC	
Annunciator	SBK-076	Plant Line 4 Primary Diff.		125VDC	AP 0858 and 0859
Annunciator	SBK-075	230KV Bkr 1692 High Pressure Sym Low Air Pressure		125VDC	
Annunciator	SBK-016	Plant Line 4 Bkup Diff.		125VDC	AP 0862
Annunciator	SBK-072	500KV Sub Oscillograph Alarm		125VDC	AP 0849
Annunciator	SBK-073	230KV Bkr 1692 Open		125VDC	AP 0855
PAX	CMP-544	Handset H-373 500KV Yard	EC-209-014 CM-02	48VDC	To Isolate all PAX Circuits to the Switchyard disconnect all terminations from CMP-544 and CMP-727 in Terminal Box CM-4
PAX	CMP-727	Handset H-375 Outside Terminal House	EC-209-014 CM-02	48VDC	

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### Plant Elevation Data

SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-001	100A Safety Switch "A" (DPDP-7A, Bkr 10)	S171-1563D SH. 2 210-323	125VDC	Control Bd. SSAA-6 TB 4A Terminals 1,2
DC Circuits	SBV-004	100A Safety Switch "B" (DPDP-7B, Bkr 15)	S171-1563D SH.2 210-314	125VDC	Control Bd. SSAA-2 TB 2A Terminals 1,2
DC Circuits	SBV-007	Transfer Diff. 230/4KV	S171-1563D SH.1 210-323	125VDC	Control Bd. SSAA-6 TB 3 Terminals 1,2,3,4
DC Circuits	SBV-009	Transfer Ground Diff. CT's	S171-1563D SH.1 210-323	125VDC	Control Bd. SSAA-6 TB 3 Terminals 11,12,13,14
DC Circuits	SBV-013	230KV Bus #9 Pot.	S171-1563D SH.1 210-319	125VDC	Control Bd. SSAA-5 TB 3 Terminals 4,5,6
DC Circuits	SBV-015	Bkr 1661 Control	S171-1561D SH.1 210-305	125VDC	Control Bd. CFA/SSTR TB 11 Terminals 1,2,3,4
DC Circuits	SBV-017	Bkr 1661 Control	S171-1561D SH.1 210-305	125VDC	Control Bd. CFA/SSTR TB 11 Terminals 5,6,7,8
DC Circuits	SBV-021	Bkr 3211, 3212 Trip Coil 2	S171-1561D SH.1 210-310 SH. 1	125VDC	Control Bd. SSAA-1 TB 4 Terminals 3,4,5,6
DC Circuits	SBV-023	Bkr 3211, 3212 Trip Coil 2	S171-1561D SH.1 210-310 SH. 1	125VDC	Control Bd. SSAA-1 TB 4 Terminals 4,5
DC Circuits	SBV-027	Bkr 3211, 3212 Trip Coil 1	S171-1560D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 3 Terminals 23,24
DC Circuits	SBV-031	XFMR Alarm 2 AP 2043,1104	EC-210-332	125VDC	Control Bd. Misc/SSTR TB 5 Terminals 5,6,7,8
DC Circuits	SBV-037	XFMR Alarm 3 AP 1527,1337,1423	EC-210-332	125VDC	Control Bd. Misc/SSTR TB 6 Terminals 1,2,3,4
DC Circuits	SBV-041	AP 146,147,1131	EC-210-332	125VDC	Control Bd. Misc/SSTR TB 5 Terminals 1,2,3,4
DC Circuits	SBV-044	Bkr 4902 Control	S171-1563D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 4 Terminals 19,20,21
DC Circuits	SBV-047	Bkr 4900 Control	S171-1563D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 2,6,7

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### Plant Elevation Data

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-051	Bkr 4902/4900 Trip Coil 1	S171-1560D SH.2, 210-330	125VDC	Control Bd. Misc/SSTR TB 4 Terminals 22,23,24
DC Circuits	SBV-073	RTU Bkr 1661, 1662	EC-210-310	125VDC	Control Bd. SSAA-1 TB 5 Terminals 20,21,22
DC Circuits	SBV-074	RTU MOD 1873, 1890	EC-210-330	125VDC	Control Bd. Misc/SSTR TB 1 Terminals 16,17,18
DC Circuits	SBV-081	Unit 3 Pri. Int. Prot. Relay	S171-1561D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 21,22,23
DC Circuits	SBV-087	Bkr 1662 Control	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 12,13,14,15
DC Circuits	SBV-089	Bkr 1662 Control	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 16,17,18,19
DC Circuits	SBV-092	Bkr 1662 Control	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 1,2,3,4
DC Circuits	SBV-094	Unit 3 Alt. Int. Prot. Relay	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 5,6,7,8
DC Circuits	SBV-106	Unit 3 Isolating XFMR	S171-1563D SH.2, 210-326	125VDC	Control Bd. SSAA-10 TB 2 Terminals 9,10
DC Circuits	SBV-118	Unit 3 Isolating XFMR	S171-1561D SH.2, 210-326	125VDC	Control Bd. SSAA-10 TB 2 Terminals 1,3
DC Circuits	SBV-129	Unit 3 Isolating XFMR	S171-1560D SH.2, 210-305	125VDC	Control Bd. GFA/SSTR TB 6 Terminals 11,12
DC Circuits	SBV-131	Unit 3 Prot. Int. Relay Trip	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 6 Terminals 1,2,3,4
DC Circuits	SBV-133	Unit 3 Prot. Int. Relay Trip	S171-1560D SH.1, 210-305	125VDC	Control Bd. GFA/SSTR TB 6 Terminals 5,6,7,8
DC Circuits	SBV-135	Alarm 1 Bkr 4900, 4902	S171-1560D SH.1, 210-310	125VDC	Control Bd. SSAA-1 TB 4 Terminals 10,11,19,20
DC Circuits	SBV-137	Alarm 1 Bkr 4900, 4902	S171-1560D SH.1, 210-310	125VDC	Control Bd. SSAA-1 TB 4 Terminals 10,13,17,18

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**Plant Elevation Data**

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-139	Alarm 1 Bkr 4900, 4902	S171-1560D SH.1 210-310 SH. 1	125VDC	Control Bd. SSAA-1 TB 4 Terminals 12,14,15,16
DC Circuits	SBV-151	Bkr 3211, 3212 Trip Coil 1	S171-1560D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 23,24
DC Circuits	SBV-153	Bkr 3211, 3212 L.O.	S171-1560D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 4,9,13,14
DC Circuits	SBV-155	Alarm 3	EC-210-332	125VDC	Control Bd. Misc/SSTR TB 5 Terminals 9,10,11,12
DC Circuits	SBV-157	Alarm 3	EC-210-332	125VDC	Control Bd. Misc/SSTR TB 6 Terminals 4,5,6,7,8,9
DC Circuits	SBV-159	Control 8 Bkr 4902	S171-1563D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 4 Terminals 14,15,16,17
DC Circuits	SBV-163	Control 3 Bkr 4900	S171-1563D SH.2	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 1,3,5
DC Circuits	SBV-165	Control 5 Bkr 4900	S171-1563D SH.2 210-330	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 8,10,11,12
DC Circuits	SBV-198	Bus Diff. Curr.	EC-210-027	125VDC	Control Bd. SSR TB 17 Terminals 20,21,22,23
DC Circuits	SBV-220	Transf. Diff. Curr.	EC-210-330	125VDC	Control Bd. Misc/SSTR TB 1 Terminals 12,13,14,15
DC Circuits	SBV-221	Transf. Diff. Curr.	EC-210-027	125VDC	Control Bd. SSR TB 17 Terminals 15,16,17,18

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**Plant Elevation Data**

SWITCHYARD 101 ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
AC Circuits	ACL-008	Substation Control House Pwr.	CS-212-004 ACL1	480VAC	Bkr 3324 Turb Aux Bus 3B
AC Circuits	ACL-009	Substation Control House Pwr.	CS-212-004 ACL1	480VAC	
AC Circuits	SBC-001	Pri. Off-site PS/Bkr Chrg Mtrs, XFMR Cooling Fans	212-079 SBC1	480VAC	ES MCC 3A3 Unit 6CER
AC Circuits	SBC-002	Alt. Offsite PS/Bkr Chrg Mtrs, XFMR Cooling Fans	212-079 SBC1	480VAC	ES MCC 3B3 Unit 3BDR
Aux. Elec. Pwr.	MTT-020	XFMR Diff. Current	EC-210-026	125VDC	Main Cntrl Bd. SSR TB 8 Terminal 12,13,14
Aux. Elec. Pwr.	MTT-076	XFMR Ground Diff. Current	EC-209-040 MT- 03	125VDC	Step-up XFMR MTTR-3C Cont. Cab. "W" Terminals 70,72
AC Circuits	SBU-001	HAGM Cabinet (Metering)	C-210-653	125VAC	HAGM Cab. TB 4 Terminals 5,7,9,10
DC Circuits	SBU-002	HAGM Cabinet (Metering Pot.)	209-040	125VDC	HAGM Cab. TB 4 Terminals 19,20,21

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### Plant Elevation Data

GUARDHOUSE EL. 100'					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINT/S
AC Circuits	ACC-042	ACDP GH-1	EC-206-063	480VAC	MTMC-12-11C MTMC-13-8A
AC Circuits	PSC-003	ACDP GH-1	EC-206-064	480VAC	*NOTE: Both breakers must be opened due to XFER Sw.
PAX	CMP-677	Guardhouse PAX	SS-211-014 CM-60	48VDC	All PAX circuits to Guardhouse can be isolated by disconnecting all terminations of CMP-677 and CMP-679 in Terminal Box CM-4.
PAX	CMP-679	Guardhouse PAX	SS-211-014 CM-60	48VDC	

NUCLEAR ADMINISTRATION BUILDING EL. 101					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING#	VOLTAGE	ISOLATION POINT/S
AC Circuits	ACL-013	Nuclear Admin Bldg Feed (ACDP-121)	EC-206-043 sh.1	480VAC	MTSW-3B-5D
AC Circuits	ACL-014	Nuclear Admin. Bldg Feed (ACDP-121)	EC-206-043 sh.1	480VAC	
AC Circuits	N/A	Emergency Lighting	VDWG S-001794	480VAC	Breaker Outside on Nuc. Admin. Southwest Stairwell.

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### Plant Elevation Data

NEW FABRICATION SHOP EL. 103'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Main Disconnect for Fab Shop	480VAC	Main Disconnect on 2 <sup>nd</sup> floor at top of inside stairs.
AC Circuits	N/A	Main Disconnect for Fab Shop Air Comp and Diesel Tank	480VAC	480V Disconnect near Air Comp. and Diesel Tank ≈. 50 yds South of Fab Shop.

LOW RAD WAREHOUSE EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Low Rad Warehouse Disconnect	480VAC	Disconnect Outside on N.W. corner of Bldg.

SANDBLASTING AND PAINT SHED EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Main Disconnect for Sandblast Shed	480VAC	Disconnect Outside on South wall of Low Rad Warehouse.



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### Plant Elevation Data

RECEIVING WAREHOUSE EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Main Disconnect for Receiving Warehouse	480VAC	Main Dist. Pnl. For Receiving Warehouse located on North wall inside.
AC Circuits	N/A	Lighting Panel	120/208VAC	Lighting Panel located in N.E. corner of Warehouse

ISSUE WAREHOUSE / ISSUE WAREHOUSE CHEMICAL STORAGE AREA EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Main Breaker for Issue Warehouse / Issue Warehouse Chemical Storage Area	480VAC	Main Breaker for Issue Warehouse / Issue Warehouse Chemical Storage Area located Outside on N.W. corner of Receiving Warehouse

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### Plant Elevation Data

TRAILERS EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Disconnect for Sewage lift stations/Main transformer	480VAC	Main disconnect for this unit located center of north outside wall of the CR3 warehouse.
AC Circuits	N/A	Disconnect for Fitness Center	240VAC	Main disconnect located in outside panel at NE corner of CR3 warehouse.

STRUCTURES EL. 99'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Disconnect (de-energize) Building K3 and Mechanical Fabrication Shop in transformer runoff area	480VAC	Disconnect located in switch box by pond outside fence. Special tool needed. Notify Distribution. Breakers located in Distribution panels inside fence.
AC Circuits	N/A	Disconnect for any temporary buildings in transformer runoff area	480VAC	Disconnect located in switch box by pond outside fence. Special tool needed. Notify Distribution
AC Circuits	N/A	Office Trailer #1 , North side of SAB	220VAC	Outside North side of Office Trailer #1
AC Circuits	N/A	Office Trailer #2 , North side of SAB	220VAC	Outside North side of Office Trailer #2
AC Circuits	N/A	Office Trailer #3 , North side of SAB	220VAC	Outside North side of Office Trailer #3
AC Circuits	N/A	Office Trailer #4 , West side of SAB	220VAC	Outside North side of Office Trailer #4

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### Plant Elevation Data

STRUCTURES EL. 99'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Office Trailer #5 , West side of SAB	220 VAC	Outside South side of Office Trailer #5
AC Circuits	N/A	Office Trailer #7 , SAB East Parking Lot	220 VAC	Outside SAB E. Parking Lot
AC Circuits	N/A	Office Trailer #92 South of Warehouse receiving yard	220 VAC	Adjacent to fence South of Rec'g W.H.
AC Circuits	N/A	Office Trailer #25 West Side Rail Spur Yard	220 VAC	CR3 side of VBS Fence East of Retirement Structure
AC Circuits	N/A	Office Trailer #29 (SGR Trailer) Lower Berm Area inside PA	480 VAC	Outside South Side of Office Trailer #29
AC Circuits	N/A	Office Trailer #40 (Part 73 Project) Lower Berm Area inside PA	480 VAC	Fed from Trailer 29 Distribution panel, Outside South Side of Office Trailer # 29

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### Plant Elevation Data

STRUCTURES EL. 99'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	SGT Stowage Tent #39	480 VAC	CR3 Side of VBS Fence East of Retirement Structure
AC Circuits	N/A	SGR Fabrication Tent #46, East of Retirement Structure	480 VAC	CR3 side of VBS Fence East of Retirement Structure
AC Circuits	N/A	SGR Hot Leg Storage Tent #47 Overflow Parking Lot immediately North of 500kv Lines	480 VAC	Adjacent West Side of Structure
AC Circuits	N/A	SGR Decon Tent #86, North of Retirement Structure	480 VAC	CR3 side of VBS Fence East of Retirement Structure

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**Plant Elevation Data**

TSC EL. 101' PROTECTED TO 105'6" EL.					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINT/S
AC Circuits	ACC-047	235 KW Diesel Generator MEDG-1	EC-206-072	480VAC	Secure MEDG-1 and Disconnect Batteries
AC Circuits	ACC-070	ACDP-111 (MAIN)	EC-206-072	480VAC	
AC Circuits	ACF-123	ACDP-117	EC-206-072	208/120VAC	
AC Circuits	ACF-117	ACDP-113	EC-206-072	480/277VAC	
AC Circuits	ACF-119	ACDP-112	EC-206-072	208/120VAC	
PAX	CMP-1115	TSC PAX Circuits (All)	SS-211-014	48VDC	All PAX Circuits to TSC can be isolated by opening all links on TB2-C in PAX Main Dist. Frame. (5 pairs )

ALTERNATE AC DIESEL BUILDING ELEVATION 112'					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINT/S
AC Circuits	ACDP-202 ACDP-203 EGCP-4C	Alternate AC Diesel auxiliary equipment and building lighting/service loads.	SS-201-061	480 VAC	ACDP-175 Breaker 6
DC Circuits	DPDP-11 VBDP-16 VBIT-16	Alternate AC Diesel auxiliary equipment. NOTE: Removal of DC power to EGDG-1C will cause an engine start. Operations must isolate the air start system prior to securing DC power.	SS-201-063 SS-201-071	125/250 VDC	DPDP-1C Breaker 21

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**Employee Considerations Before, During, And After Storm**

**NOTES:**

- Non-Essential Personnel (those **NOT** identified below), are more valuable off-site helping in personal and county recovery efforts and should **NOT** return to work until needed.
- The most current version of the Violent Weather Committee Volunteers list is found on the Emergency Preparedness Web page located at:

[http://nngweb/cr3emergencypreparedness/out/violent\\_weather\\_directory.pdf](http://nngweb/cr3emergencypreparedness/out/violent_weather_directory.pdf)

**1.0 THREE GROUPS OF STORM PERSONNEL**

- **GROUP 1: Storm Preparations Crew** - Individuals on site prior to storm, making storm preparations.
- **GROUP 2: Storm Crew** - Pre-designated personnel (chosen from Violent Weather Committee/Volunteers list) returning to site approximately 6-10 hours before landfall or before sustained tropical force winds are predicted in Citrus County, and remaining on site during storm.
- **GROUP 3: Storm Recovery Crew** - Individuals from Group 1 and from the Violent Weather Committee/Volunteers list **NOT** chosen as Group 2.

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**Employee Considerations Before, During, And After Storm**

**2.0 SUPERVISOR ACTIONS/DECISIONS TO BE MADE PRIOR TO BRIEFINGS:**

**1. GROUP 1:**

- a. Storm Preparations Crews should **NOT** be same as Group 2.
- b. Once Group 2 is decided upon, Group 1 Storm Preparations Crews should report as scheduled for at least two shifts, dependent on preparations needed and time before landfall.
- c. Ideally, Group 1 would be home 6-10 hours before landfall or before sustained tropical force winds are predicted for Citrus County.

**2. GROUP 2:**

- a. DETERMINE who is needed on site during storm. These people should be chosen first from Violent Weather Committee/Volunteers list and be limited to number designated in the Staffing Levels.

**3.0 CONSIDERATIONS FOR STAFFING LEVELS**

1. There are two reasons that personnel are brought onsite to staff the plant during a storm:
  - a. Provide adequate staff to safely operate and maintain the plant.
  - b. Pre-staff ERO members that may **NOT** be able to gain access to the site (due to debris or high water) if the ERO is activated.
2. To limit the number of personnel on site, those individuals selected should be there for both reasons listed above. The PGM or designee may alter staffing levels at his discretion.

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**Employee Considerations Before, During, And After Storm**

**3.0 CONSIDERATIONS FOR STAFFING LEVELS (continued)**

3. The following staffing guidelines are suggested for each level of storm intensity. There are many variables that would result in establishing staffing levels that are more or less than what is listed below. Variables to consider for altering staffing levels include:
  - Expected location of landfall (a strong storm far North or South of plant may **NOT** require levels listed under Section 4.0 of this Enclosure)
  - Expected severity of the storm
  - Direction of travel (from Gulf or from East coast)
  - Expected Storm surge
  - Timing of landfall and storm force winds in Citrus County (staff more in advance if winds are expected in the middle of the night)
  - Protective actions ordered by officials in Citrus County



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**Employee Considerations Before, During, And After Storm**

**4.0 STAFFING LEVELS**

**4.1 Tropical Storm**

1. **NO** additional staff; unless storm surge is expected to significantly restrict or prevent access.
2. **IF** site access could be blocked by storm surge, **THEN** staff per category 1 hurricane.

**4.2 Category 1 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	3	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Mgmt.
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support

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**4.2 Category 1 Hurricane (continued)**

4. **OSC** –The OSC staffing represents the on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	2	Electrical Maintenance
Emergency Repair Team – I & C	1	I & C Maintenance
Emergency Repair Team – Mechanical	2	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. and Ops)	5	Facility Service/Operations support
Emergency Sample Team	2	Chemistry Support
Radiation Monitoring Team	13	Health Physics/Engineering support

(4-5 of these can be HP Responders. Two of the HPs should be on dose assessment team)

5. **EOF**– None

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**4.3 Category 2 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP and additional support staff.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	3	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Management
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support
Accident Assessment Team Ops Support	1	Operations Support
Accident Assessment Team Engineer	1	Engineering Support
AAT Communicator	1	Operations Support
Plant Computer Specialist	1	Engineering Support
Warehouse/Procurement (not part of TSC staff)	1	Materials Support

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**4.3 Category 2 Hurricane (continued)**

4. **OSC** –The OSC staffing represents the On-Shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	2	Electrical Maintenance
Emergency Repair Team – I & C	1	I & C Maintenance
Emergency Repair Team – Mechanical	2	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. and Ops)	5	Facility Service/Ops support
Emergency Sample Team	2	Chemistry Support
Radiation Monitoring Team	13	Health Physics/Engineering support
(4-5 of these can be HP Responders. Two of the HPs should be on dose assessment team)		

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## Employee Considerations Before, During, And After Storm

### 4.3 Category 2 Hurricane (continued)

5. **EOF** – The EOF staffing represents positions listed in Table 6.1 of the RERP.

ERO Position	# to fill
EOF Director	1
Report Prep Director	1
Technical Support Coordinator	1
Radiation Controls Manager	1
Emergency Preparedness (as available) or Facility Manager	1

- a. The EOF is located approximately one mile East of US 19 and may be in a mandatory or precautionary evacuation area due to storm surge (this information can be obtained from the Citrus County Emergency Operations Center).
- b. **IF** storm surge is **NOT** predicted to affect the area of the EOF, **THEN** staffing the simulator building with EOF staff is appropriate. The simulator building is more hardened than the EOF and it contains key offsite notification systems.
- c. Local EMS may also request to stage one or two ambulance crews at the EOF if PE personnel are also there.
- d. The following locations for the minimum EOF staff should be considered depending on storm variables (EP will coordinate establishing the alternate locations if necessary):
  - EOF Simulator Building
  - Seven Rivers Regional Medical Center
  - Lecanto Government Building
  - Inverness Progress Energy (PE) Business Office
- e. There are MREs stored in the EOF. It is the responders' responsibility to arrange for other food if desired. If an alternate location is used for staffing, the MREs should be transported to that location unless food is already available.

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**Employee Considerations Before, During, And After Storm**

**4.4 Category 3-5 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and two shifts of the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP and additional support staff.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	5	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Mgmt.
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support
Accident Assess. Team Ops Support	2	Operations Support
Accident Assessment Team Engineer	2	Engineering Support
AAT Communicator	2	Operations Support
Plant Computer Specialist	2	Engineering Support
Warehouse/Procurement (not part of TSC staff)	2	Materials Support

4. **OSC** –The OSC staffing represents two shifts of the on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP except for HP and Fire Brigade personnel.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	4	Electrical Maintenance
Emergency Repair Team – I & C	2	I & C Maintenance
Emergency Repair Team – Mechanical	4	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. and Ops)	10	Facility Service/Ops support
Emergency Sample Team	4	Chemistry Support
Radiation Monitoring Team	20	Health Physics/Engineering support
(8-9 of these can be HP Responders. Four of the HPs should be on dose assessment team)		

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### Employee Considerations Before, During, And After Storm

#### 4.4 Category 3-5 Hurricane (continued)

5. **EOF** – The EOF staffing represents positions listed in Table 6.1 of the RERP.

ERO Position	# to fill
EOF Director	1
Report Prep Director	1
Technical Support Coordinator	1
Radiation Controls Manager	1
Emergency Preparedness (as available) or Facility Manager	1
Dose Assessment Team	2
Technical Support Team – Operations	1
Technical Support Team – Engineer	1

- a. The EOF is located approximately one mile East of US 19 and may be in a mandatory or precautionary evacuation area due to storm surge.
- b. **IF** storm surge is **NOT** predicted to affect the area of the EOF, **THEN** staffing the simulator building with EOF staff is appropriate. This information can be obtained from the Citrus County Emergency Operations Center.
- c. Local EMS may also request to stage one or two ambulance crews at the EOF if PE personnel are also there.
- d. The following locations for the minimum EOF staff should be considered depending on storm variables (EP will coordinate establishing the alternate locations if necessary):
  - EOF Simulator Building
  - Seven Rivers Regional Medical Center
  - Lecanto Government Building
  - Inverness Progress Energy (PE) Business Office

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**4.4 Category 3-5 Hurricane (continued)**

- e. There are MREs stored in the EOF. It is the responder's responsibility to arrange for other food if desired. If an alternate location is used for staffing, the MREs should be transported to that location unless food is already available.
- f. DETERMINE location pre-designated by Security **AND** VERIFY time these employees can leave their personal vehicles and be picked up if they need a ride to site prior to storm. (Personal vehicles should **NOT** be on site during storm.)

**5.0 TOPICS TO DISCUSS AT BRIEFINGS:**

1. Safety meetings are held with all Groups. Examples of topics to discuss may include such items as:
  - Schedules Face Shield, gloves, boots, strap on hard hat
  - Specific Job assignments Flying debris/outside work
  - Safety Harnesses Energized equipment
  - Radio – 1 per crew Radiation Surveys
  - Weather Conditions Food availability

**NOTE:** If individuals are **NOT** on site at time storm preparations are to begin, but will be requested to remain on site during storm, they should be notified as soon as possible and given same information below that is given those leaving site and returning for storm duration.

2. In addition to safety meetings, the following should be discussed with designated group:
  - a. **GROUP 2:**
    - (1) ALLOW Group 2 to go home to ensure the safety of their homes and families before returning to site at a pre-designated time (approximately 6-10 hours before storm or before tropical force winds are predicted in Citrus County).
    - (2) REMIND personnel to establish how their families can be reached after the storm.



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**5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)**

- (3) NOTIFY personnel of time and location they will be picked up if they can't get a ride to work.
- (4) NOTIFY personnel that food, probably Meals-Ready-to-Eat (MREs), water, and sleeping accommodations will be available on site for storm duration. Personnel will remain in the Control Complex during the hurricane unless otherwise directed.

**NOTE:**

For an expected significant storm surge at CR3, the Control Complex should be used for **CATEGORY 1** and **CATEGORY 2** hurricanes.

- (5) Guidelines for sleeping/staging areas for those in **Group 2** (Before Landfall):
  - CCB, PAB (floors 2-4), and NAB
- (6) Guidelines for sleeping/staging areas for those in **Group 2** (During Storm):
  - Tropical Storm/Cat 1&2 Hurricane – CCB and PAB (floors 2-3)
  - Cat 3-5 Hurricane – Control Complex 145' & 124' elev. (Alt. TSC)

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### **Employee Considerations Before, During, And After Storm**

#### **5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)**

- (7) NOTIFY personnel they will be the initial group to assess plant damage and may be on site for 2-3 days, based on accessibility to the site. Communications may be limited or **NOT** available. They should be requested to bring back to site with them items such as:
  - medication for 2-3 days
  - food for 1 or 2 meals if they want
  - additional non-perishable snack food if they want
  - PE badge to show Citrus County Sheriff's Office (CCSO) when traveling to site
  - change of clothes
- (8) PROVIDE personnel with CR3's Emergency Information Phone number (563-4987) to be used to obtain departmental scheduling information and other storm information as required.

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### Employee Considerations Before, During, And After Storm

#### 5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)

##### b. GROUP 3:

- Recovery crews should know they are expected to report to work as previously scheduled or as soon as conditions are safe for travel.

#### NOTE

Travel routes are dictated by Citrus County Sheriff's Office and personal abilities.

- IF storm is severe **AND** either of the following conditions exist:
  - (a) Communications are **NOT** functioning at the plant .. N/A ☐ ☐
  - OR**
  - (b) Travel routes to the plant are still considered hazardous ..... N/A ☐ ☐

**THEN** employees should **GO TO** the Inverness Business Office for instructions the following day as soon as conditions permit.

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### CR3 Emergency Information Line

#### 1.0 GENERAL INFORMATION

- Supervisors should make every attempt to let their personnel know before leaving site what is expected of them, depending on storm conditions of next work day.

#### NOTE

Road access through Citrus County may be allowed only by special permit unless on company business and showing company badge to Citrus County Sheriff's Office personnel.

- IF** the storm makes a direct hit on Citrus County, **THEN** non-essential personnel should be told **NOT** to report to work **AND** perform the following: ..... N/A ☐ ☐

  - Take care of personal needs ..... ☐
  - Call plant when phone lines permit ..... ☐

#### NOTES

- Local information is also available through Citrus County Department of Emergency Management.
- Employees may use emergency information line to check on schedule information as designated by supervisors for departments listed on emergency line, if their normal means are **NOT** available to them.

- IF** there is **NO** direct hit on Citrus County, **THEN** employees should listen to local radio stations for local closings and road access information **AND** report as scheduled, unless information on radio says differently. .... N/A ☐ ☐

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### CR3 Emergency Information Line

## 2.0 HOW TO SET-UP OR CHANGE A MESSAGE ON THE EMERGENCY INFORMATION LINES

### NOTES

- The primary Emergency Information Line is in the Site Administration Building
- A backup Emergency Information line is at the Harris E & E Center in Raleigh.

#### 1. Accessing the Primary Emergency Information Line:

##### a. The system is currently set-up for the following areas:

- General Information..... Ext. 4226
- Maintenance Information..... Ext. 4227
- Operations Information..... Ext. 4228
- ChemRad Information ..... Ext. 4229
- Engineering Information ..... Ext. 4230
- Security ..... Ext. 4232

##### b. PERFORM the following to set-up or change message:

- (1) Call 563-4987 or ext. 4987. .... ☐
- (2) **WHEN** opening message is being heard, **THEN** Dial 9 and extension to be changed. .... ☐

### EXAMPLE

Dial 9-4227 to change set-up message for Maintenance; 9-4229 to change set-up message for ChemRad, etc.

- (3) **WHEN** voice mail asks "Would you like to leave any messages.", **THEN** do **NOT** leave a message" ..... ☐
- (4) **WHEN** voice mail asks, "Would you like to access your set-up options," **THEN** press 1. .... ☐

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### CR3 Emergency Information Line

#### 2.0 HOW TO SET-UP OR CHANGE A MESSAGE ON THE EMERGENCY INFORMATION LINES (continued)

- (5) **WHEN** voice mail asks, "Would you like to change your personal greeting," **THEN** press 1 **AND** leave the message to be heard by your employees when they call. .... ☐
- (6) **IF** desired to retrieve the information, **OR** to verify your new message, **THEN** call 563-4987 and follow directions.. N/A ☐ ☐
- (7) **WHEN** message is no longer applicable, **THEN** the individual posting message **MUST REMOVE** message from Information Line..... ☐

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### CR3 Emergency Information Line

#### 3.0 BACKUP EMERGENCY INFORMATION LINE:

##### NOTES

- Below are voice-mail numbers in which Supervisors can leave messages.
- When connected, you will hear "Prompt Maintenance, Voice Service ID".

1. IF setting of or changing message, THEN PERFORM the following:

a. Dial-In to one of the following phone numbers:

- Bell 919-362-3350 ..... N/A ☐ ☐

OR

- Voice-Net 8-772-3350 ..... N/A ☐ ☐

##### CAUTION

Do **NOT** change the password.

2. Enter the Voice Service ID for the recording to be changes **AND** follow the audible directions. .... ☐

Selected Recording Message	Voice Service ID	Password (when prompted)
Primary Menu Service	3209#	1234 #
General Information	4010#	1234 #
Maintenance Information	4011#	1234 #
Operations Information	4012#	1234 #
Chem-Rad Information	4013#	1234 #
Engineering Information	4014#	1234 #
Security Information	4015#	1234 #

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### CR3 Emergency Information Line

#### 3.0 BACKUP EMERGENCY INFORMATION LINE: (continued)

3. **IF** desired to retrieve the information, **OR** to verify your new message, **THEN** call one of the following numbers **AND** follow directions.

- Bell 919 362 3209 ..... N/A ☐ ☐

**OR**

- Voice-Net 8-772-3209 ..... N/A ☐ ☐

4. **WHEN** message is no longer applicable, **THEN** the individual posting message **MUST REMOVE** message from Information Line. .... ☐





1242  
Reference Use

CRYSTAL RIVER UNIT 3  
EMERGENCY PREPAREDNESS PROCEDURE  
NON-SAFETY RELATED  
**EM-220A**

**VIOLENT WEATHER  
(COASTAL FLOOD WARNING)**

REVISION 0

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REVISION SUMMARY
PRR 591385 DESCRIPTION
<p><b>NOTE:</b></p> <ol style="list-style-type: none"> <li>1. Writers and Reviewers: Ensure any changes to this procedure that affect information contained in Emergency Respond Facility posters, enclosures, briefing cards, guidelines etc. are made to those items as well.</li> <li>2. Writers and Reviewers: Changes to certain parts of this procedure may impact other Emergency Plan Implementing Procedures.</li> </ol> <ul style="list-style-type: none"> <li>• New procedure. Based on the decision to decommission CR3, the original EM-220 is being split into a series of procedures (EM-220A through EM-220C) specific to each weather occurrence and streamlined, based on new staffing and station/equipment priorities. EM-220 will remain the parent document that drives the implementation of the new EM-220 series procedures.</li> <li>• Added Internet Weather Services and Citrus County EOC to list of weather information providers in step 4.0.5 per EP impact review comments.</li> </ul>

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## 1.0 PURPOSE

1. This procedure is an Emergency Plan Implementing Procedure (EPIP). Any revisions require a 50.54(q) screening for Emergency Plan impact.
2. This procedure has been implemented by the Violent Weather Committee to provide guidance when a coastal flood warning is in effect, with the plant defueled.
3. This procedure implements activities to ensure plant safety by having necessary personnel, equipment, and supplies on hand.
4. Implementation of this procedure does **NOT** mean the Radiological Emergency Response Plan (RERP) has been entered.

## 2.0 RESPONSIBILITIES

1. For a Coastal Flood Warning, Operations, Maintenance, Security and Major Projects are the only Committee members to have actions for this procedure.

## 3.0 PREREQUISITES

None

## 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES

1. Diesel Generators are **NOT** to be loaded onto the grid during severe weather conditions.
2. Evacuate non-essential personnel in Protected Area and visitors in Owner Controlled Area in a timely manner. As flooding concerns increase, evacuation efforts will become difficult.
3. Severe weather conditions are **NOT** over until National Weather Service indicates there is no longer a threat to area.
4. Flooding level for TSC is 101' 6" or approximately 9' above mean high tide. (Installation of flood barriers allows water level to reach 105' 6"). Consider moving TSC activities to Control Complex before conditions prevent an orderly transition or flood doors are closed.

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#### 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES (continued)

5. Expect information on approaching severe weather conditions to be available as follows:
  - The National Weather Service (NWS) issues warnings.
  - The National Weather Service may be contacted for reliable information if other means of obtaining the information is **NOT** available.
    - (813) 645-2323 (meteorologist)
    - (813) 645-2506 (recorded)
    - (813) 645-4111 (emergency only)
  - The Distribution System Storm Center declares a major storm, implements the company's storm plan, and notifies employees.
    - The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407) 942-9581.
  - Internet Weather Services
  - Citrus County Emergency Operations Center (EOC)

#### 5.0 SPECIAL TOOLS AND EQUIPMENT

None

#### 6.0 ACCEPTANCE CRITERIA

None

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## 7.0 INSTRUCTIONS

### NOTES

- EM-220, Attachment 2, Plant Elevation Data may be referenced to determine the elevation at which various pieces of equipment are affected by flooding.

## 7.1 Coastal Flood Warnings

### 7.1.1 Shift Manager (SM)

1. REVIEW EM-202 for existing applicable Emergency Action Levels..... ☐
2. NOTIFY Site Duty Manager to review AD-OP-ALL-0101, Event Response and Notifications ..... ☐
3. NOTIFY Maintenance to perform Attachment 2, Nuclear Facility Services Violent Weather Guidelines for Coastal Flood Warning ..... ☐
4. NOTIFY Security to perform Attachment 3, Security Violent Weather Guidelines for Coastal Flood Warning. .... ☐
5. NOTIFY Major Projects to perform Attachment 4, Major Projects Violent Weather Guidelines ..... ☐
6. MAINTAIN the status of on-going coastal flooding actions ..... ☐
7. PERFORM Operations actions in Attachment 1 Section 1.1, Coastal Flood Warnings..... ☐

## 7.2 Recovery From Violent Weather

### 7.2.1 Shift Manager (SM)

1. PERFORM Operations Actions in Attachment 1 Section 1.2, Recovery from Violent Weather ..... ☐
2. MAINTAIN the status of on-going actions of the Violent Weather Committee ..... ☐

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## 8.0 RECORDS

1. Completed EM-220A is transmitted to Records.

## 9.0 REFERENCES

### 9.1 Developmental References

1. EM-202, Duties of the Emergency Coordinator
2. FSAR Sections 1.9.7; 2.4.2.4; 2.4.2.4.1; 9.3.2; 9.6.2.7;
3. Radiological Emergency Response Plan
4. SOER 02-1, Severe Weather
5. CR3 Safeguards Contingency Plan
6. AI-574, Sea Grass or Debris Influx Plan
7. EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building
8. SS-206, Security Safeguard Contingency Events

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## 9.2 Implementing References

1. AI-504, Guidelines for Cold Shutdown and Refueling
2. SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs
3. SEC-NGGC-2147, Reporting Of Safeguards and Fitness-For-Duty Events
4. SP-300, Operating Daily Surveillance Log

## 10.0 DEFINITIONS

1. **CR3 location:** Latitude 28.9N, Longitude 82.7W
2. **Coastal Flood Warning:** CR3 begins flood preparations when National Weather Service reports a storm surge of greater than 4 feet above mean (normal) high tide. This occurs when the Ultimate Heat Sink is projected to reach a high level of approximately 96 feet.



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## Violent Weather Committee Checklists for Storm Preparations Actions

### 1.0 Operations

#### 1.1 Coastal Flood Warnings

##### NOTE:

EM-220, Attachment 2, Plant Elevation Data may be referenced to determine the elevation at which various pieces of equipment are affected by flooding.

1. REVIEW EM-202 for existing applicable Emergency Action Levels..... ☐
2. EVALUATE system configurations which may permit water intrusion into plant buildings due to high tides, such as CW system, RW system manways, or pipe openings **AND** COORDINATE closure with Maintenance. .... ☐

##### NOTE

Whenever tide level exceeds 95 feet, the RWP gland leakoff diverter valves are aligned to "DRAIN" to minimize potential flooding in the seawater room.

3. IF tide level exceeds 95 feet, **THEN** ALIGN RWP gland leak off diverter valves to "DRAIN" ..... N/A ☐ ☐
  - RWV-189..... ☐
  - RWV-190..... ☐
  - RWV-191..... ☐
  - RWV-192..... ☐
  - RWV-193..... ☐
4. IF high debris loading on intake screens is projected (grass influx, wash out from surrounding areas etc.), **THEN** PLACE intake screens in SLOW speed per OP-604, Circulating Water System. .... N/A ☐ ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 1.1 Coastal Flood Warnings (continued)

#### NOTE

Flood levels of more than 98 feet (6 feet above mean high tides) may result in plant access difficulties for shift augmentations. Additional site elevation data can be obtained from EM-220, Attachment 2, Plant Elevation Data.

5. IF water levels are projected at more than 98 feet (6 feet above mean high tides), THEN NOTIFY shift augmentations of expected duration of flooding and projected water levels..... N/A ☐ ☐
6. PLACE Plant in "CONDITION YELLOW" ..... ☐
  - a. ENSURE informational flyers are placed at the NSOC providing basic details concerning plant status/system alignment (if conditions permit) ..... ☐
  - b. ENSURE Security has changed condition status at the NSOC (traffic signal at turnstiles) ..... ☐
  - c. REFER to following guidance, as applicable:
    - AI-504, Guidelines for Cold Shutdown And Refueling ..... ☐
7. ENSURE Emergency Medical Technician (ERC) coverage is provided ..... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 1.1 Coastal Flood Warnings (continued)

#### NOTE

Intake Structure deck level is 99' 0" Plant Datum. The PPIP-1 storage building is located at the Intake.

#### CAUTION

PPIP-1 shall **NOT** be parked in Berm areas where storm-related personnel hazards or equipment hazards may exist, or may be introduced as conditions worsen (examples: under high voltage lines, near unsecured material that may become airborne and damage the PPIP-1).

8. IF water levels are projected at more than 98 feet (6 feet above mean high tides), **THEN** MOVE PPIP-1 and the associated equipment trailer to the North/West area of the BERM **OR** inside the TB rollup door..... N/A ☐ ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 1.2 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - PERFORM PA announcements updating personnel of weather status ..... ☐
  - PROVIDE message for off duty operators using Employee Emergency Line per Attachment 6 of EM-220, Violent Weather ..... ☐
  - ESTABLISH a prioritized recovery plan:
    - (1) INSPECT the intake canal and bank for erosion or blockages.
      - Request Engineering review for bank erosion. .... ☐
    - (2) ENSURE Emergency Diesel Generators available..... ☐
2. IF restoration is needed, THEN PERFORM the following: ..... N/A ☐ ☐
  - a. ENSURE Control Complex HVAC to its normal mode of operation ..... ☐
  - b. RETURN fire brigade equipment to its proper location ..... ☐
  - c. IF intake screens are in SLOW speed, THEN SECURE intake screens per OP-604, Circulating Water System..... N/A ☐ ☐

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**1.2 Recovery from Violent Weather (continued)**

3. IF de-energized, **THEN** ENERGIZE SDP-8A and SDP-8B, Chemical Storage Area sump pumps, by closing feeder breakers: ..... N/A ☐ ☐
  - SDP-8A – Water Treatment MCC 3A Breaker #2A ..... ☐
  - SDP-8B – Water Treatment MCC 3B Breaker #2A ..... ☐
4. IF heavy rains have caused the retention pond in the PA Trailer area (swamp) to reach overflow levels **AND** weather permits, **THEN** PERFORM the following: ..... N/A ☐ ☐
  - a. NOTIFY Chemistry to sample water in the swamp area. .... ☐
  - b. NOTIFY Maintenance to INSTALL a temporary dewatering pump and hose kit to direct water to a suitable storm drain. .... ☐
    - Dewatering Pump (Cat ID 9220238836)
    - Hose kit (CAT ID 9220243675)
  - c. **WHEN** Chemistry has completed sampling **AND** given approval for discharge to a storm drain, **THEN** NOTIFY Maintenance to COMMENCE dewatering of the swamp area. .... ☐
  - **WHEN** dewatering is complete **OR** weather conditions degrade, **THEN** NOTIFY Maintenance to STOP pumping activities **AND** RETURN equipment to stores. .... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 1.2 Recovery from Violent Weather (continued)

5. MOVE PPIP-1 and the associated equipment trailer from North/West area BERM or inside the TB Rollup door to the PPIP-1 storage building located at the intake ..... ☐
6. ENSURE the following RWP gland leak off diverter valves are aligned to "FLUME":
  - RWV-189..... ☐
  - RWV-190..... ☐
  - RWV-191..... ☐
  - RWV-192..... ☐
  - RWV-193..... ☐
7. DETERMINE if plant condition "YELLOW" can be restored to "GREEN" ..... ☐
8. UPDATE Emergency Information Line when event is over ..... ☐
9. TRANSMIT completed EM-220A to Records per RDC-NGGC-0001 ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

## Nuclear Facility Services Violent Weather Guidelines

### 1.0 Coastal Flood Warnings

1. CLOSE exterior windows and doors, as necessary ..... ☐
2. EVALUATE system configurations which may permit water intrusion into plant buildings due to high tides, such as RW system, manways, or pipe openings ..... ☐
3. REVIEW the Temporary Power Log **AND** EVALUATE need to de-energize electrical power supplies based on rising water levels ..... ☐
4. NOTIFY shift augmentations, based on duration of flooding when water levels are projected at more than 98 feet (6 feet above mean high tides) due to difficulties with plant access ..... ☐
5. NOTIFY SM or EC of the status of associated actions ..... ☐
6. SECURE boat at intake canal.
  - a. ENSURE enough slack is in the rope to allow it to float without being bound up. .... ☐
  - b. ENSURE it is placed in a location that will **NOT** allow it to get hung up. .... ☐
  - c. IF the boat is **NOT** in the water, **THEN** SECURE boat to a solid item. .... N/A ☐ ☐
7. INSTALL sand bags at the SM's or Emergency Coordinator's discretion in locations specified..... ☐
8. ENSURE there are adequate amounts of fuel in forklifts, mobile cranes (cherry pickers), pumping equipment, and all trucks..... ☐
9. WALKDOWN berm area and warehouse area (located down the hill) for items that could be destroyed by high water **AND** MOVE these items to high ground, if possible..... ☐
10. SECURE all empty tanks if possible. This may require approval from the Shift Manager or Emergency Coordinator..... ☐
11. REMOVE all trash cans from the berm and parking lots..... ☐
12. PERFORM walk down of plant to ensure **NO** openings exist that would allow water intrusion into the 95' TB, CC, IB, or AB ..... ☐

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### Nuclear Facility Services Violent Weather Guidelines

#### 1.0 Coastal Flood Warnings (continued)

13. STAGE high clearance vehicle for shuttling employees in and out of the plant..... ☐
14. CHECK LSA boxes, drums, items in LOW-RAD Storage, and any other items that may create a radiological concern **AND** REPORT any issues to Health Physics as required. .... ☐
15. MONITOR for water on the 95' elev. of the Auxiliary and Intermediate Buildings. .... ☐
16. **IF** water appears to be back flowing in through the sumps **OR** leaking in by other methods, **THEN** OBTAIN permission from the SM **AND** PERFORM the following:
  - a. OPEN Fire Doors on each end of the Intermediate Building ..... N/A ☐ ☐
  - b. OPEN the steel doors to the Tendon Gallery ..... N/A ☐ ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_



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ATTACHMENT 3

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## Security Violent Weather Guidelines

### 1.1 Security

1. FUEL Security vehicles **AND MOVE** to high ground..... ☐
2. EVALUATE need for additional Security support..... ☐
3. REVIEW CR3 Safeguards Contingency Plan and SS-206 ..... ☐
4. PERFORM the following:
  - a. NOTIFY fossil maintenance to have markers installed along access road to mark roadway ..... ☐
  - b. IF water levels are projected to rise past 96 feet (4 feet above normal high tides), **THEN** NOTIFY NFS to have personal vehicles moved from CR3 parking lot and reserved parking area to Site Administration Building or end of access road. .... N/A ☐ ☐
  - c. NOTIFY NFS to stage a high ground clearance vehicle in a location to shuttle personnel in and out of site. .... ☐
5. Based on events, be prepared to:
  - a. ESTABLISH Security command post at Central Alarm Station (CAS) or Control Complex..... ☐
  - b. CONSULT with SM or EC designee to determine suspension of safeguards ..... ☐
  - c. CONDUCT Protected Area accountability..... ☐
6. IF safeguards are suspended, **THEN** PERFORM the following:..... N/A ☐ ☐
  - a. NOTIFY NRC in accordance with SEC-NGGC-2147, Reporting of Safeguards and Fitness-For-Duty Events ..... ☐
  - b. STOP outside patrols ..... ☐
  - c. TRANSFER outside patrol functions to inside patrols on interior of Control Complex, Intermediate, Auxiliary, and Turbine Buildings, as needed. .... ☐
7. NOTIFY SM or EC of the status of associated actions ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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## Major Projects Violent Weather Guidelines

### 1.1 Major Projects

1. DETERMINE if trailers should remain occupied based on weather forecast **AND** NOTIFY SM (or EC) of decision. .... ☐
2. PERFORM applicable actions of EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building. .... ☐
3. NOTIFY SM or EC of the status of associated actions ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_



1242  
Reference Use

CRYSTAL RIVER UNIT 3  
EMERGENCY PREPAREDNESS PROCEDURE  
NON-SAFETY RELATED  
**EM-220B**

**VIOLENT WEATHER  
(TORNADO WATCH OR WARNING)**

REVISION 0

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REVISION SUMMARY	
PRR 591385	
DESCRIPTION	
<p><b>NOTE:</b></p> <ol style="list-style-type: none"> <li>1. Writers and Reviewers: Ensure any changes to this procedure that affect information contained in Emergency Respond Facility posters, enclosures, briefing cards, guidelines etc. are made to those items as well.</li> <li>2. Writers and Reviewers: Changes to certain parts of this procedure may impact other Emergency Plan Implementing Procedures.</li> </ol>	
<ul style="list-style-type: none"> <li>• New procedure. Based on the decision to decommission CR3, the original EM-220 is being split into a series of procedures (EM-220A through EM-220C) specific to each weather occurrence and streamlined, based on new staffing and station/equipment priorities. EM-220 will remain the parent document that drives the implementation of the new EM-220 series procedures.</li> <li>• Added Internet Weather Services and Citrus County EOC to list of weather information providers in step 4.0.5 per EP impact review comments.</li> <li>• Attachment 2, step 1.6: Added step to consider dispatching an Emergency Preparedness representative to the Citrus EOC to provide recovery interface support and State Watch Office updates per EP impact review comments.</li> </ul>	

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## 1.0 PURPOSE

1. This procedure is an Emergency Plan Implementing Procedure (EPIP). Any revisions require a 50.54(q) screening for Emergency Plan impact.
2. This procedure has been implemented by the Violent Weather Committee to provide guidance with the plant defueled and provides guidance during Tornado Watches, Tornado Warnings or when a Tornado has been spotted by CREC personnel.
3. Implementation of this procedure does **NOT** mean the Radiological Emergency Response Plan (RERP) has been entered.

## 2.0 RESPONSIBILITIES

1. The names and phone numbers of personnel to contact for activation of the Violent Weather Committee are listed in Violent Weather Committee and Volunteer Phone Directory, maintained on the Emergency Preparedness Web Page.
2. **Shift Manager (SM) or designee:** Is responsible for the overall implementation of this procedure.
3. **Shift Manager or Emergency Coordinator:** Ensures implementation of EM-202, Duties of the Emergency Coordinator, in conjunction with implementation of this procedure.
4. **Manager Operations:** Ensures Operations personnel are available to carry out appropriate emergency functions per EM-202 and violent weather preparations contained in this procedure.
5. **Manager Maintenance:** Ensures Maintenance personnel are available to carry out violent weather preparations contained in this procedure.
6. **Manager, Nuclear Security (MNS):** Ensures Security personnel are available to carry out violent weather preparations as identified in this procedure.
7. **Supervisor Emergency Preparedness:** Acts as county and state liaison.

## 3.0 PREREQUISITES

None

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#### 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES

1. EM-202, Enclosure 1 references Emergency Action Levels to consider during violent weather.
2. Diesel Generators are **NOT** to be loaded onto the grid during severe weather conditions.
3. Keep outside activities to a minimum during high winds to prevent injuries from flying debris.
4. Severe weather conditions are **NOT** over until the National Weather Service indicates there is no longer a threat to area.
5. Expect information on approaching severe weather conditions to be available as follows:
  - The National Weather Service (NWS) issues warnings.
  - The National Weather Service may be contacted for reliable information if other means of obtaining the information is **NOT** available.
    - (813) 645-2323 (meteorologist)
    - (813) 645-2506 (recorded)
    - (813) 645-4111 (emergency only)
  - Distribution System Storm Center declares a major storm, implements the company's storm plan and notifies employees.
    - The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407) 942-9581.
  - Internet Weather Services
  - Citrus County Emergency Operations Center (EOC)

#### 5.0 SPECIAL TOOLS AND EQUIPMENT

None

#### 6.0 ACCEPTANCE CRITERIA

None

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## 7.0 INSTRUCTIONS

### 7.1 Tornado Watch Or Tornado Warning

#### 7.1.1 Shift Manager (SM)

1. REVIEW EM-202 for applicable Emergency Action Levels..... ☐
2. NOTIFY Site Duty Manager to review AD-OP-ALL-0101, Event Response and Notifications ..... ☐

### CAUTION

Plant personnel shall **NOT** place themselves in a dangerous situation while inspecting site for loose materials and debris.

3. NOTIFY the following organizations to perform their associated actions for Tornado Watch or Tornado Warning
  - Maintenance, Attachment 3, Nuclear Facility Services Violent Weather Guidelines..... ☐
  - Security, Attachment 4, Security Violent Weather Guidelines ..... ☐
  - Major Projects, Attachment 5, Major Projects Violent Weather Guidelines ..... ☐
4. PERFORM Operations Actions in Attachment 2 Section 1.1, Tornado Watch or Tornado Warning ..... ☐



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## 7.2 Recovery From Violent Weather

### 7.2.1 Shift Manager (SM)

1. NOTIFY the following organizations to perform their associated Recovery from Violent Weather actions for Tornado Watch or Tornado Warning
  - Maintenance, Attachment 3, Nuclear Facility Services Violent Weather Guidelines..... ☐
  - Security, Attachment 4, Security Violent Weather Guidelines ..... ☐
  - Major Projects, Attachment 5, Major Projects Violent Weather Guidelines ..... ☐
2. PERFORM actions in Attachment 2 Section 1.2, Recovery from Violent Weather ..... ☐

## 8.0 RECORDS

1. Completed EM-220B is transmitted to Records.

## 9.0 REFERENCES

### 9.1 Developmental References

1. EM-202, Duties of the Emergency Coordinator
2. FSAR Sections 1.9.7; 2.4.2.4; 2.4.2.4.1; 9.3.2; 9.6.2.7;
3. Radiological Emergency Response Plan
4. SOER 02-1, Severe Weather
5. CR3 Safeguards Contingency Plan
6. AI-574, Sea Grass or Debris Influx Plan
7. AI-4000, Conduct of Emergency Preparedness and Schedule for Radiological Emergency Response Plan Maintenance
8. EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building
9. SS-206, Security Safeguard Contingency Events

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## 9.1 Developmental References (continued)

10. **[R5]** NOCS 100563
11. **[R8]** NOCS 40344
12. **[R13]** NOCS 40349
13. **[R18]** NOCS 40588
14. **[R19]** AR 00337637, EM-220 Tornado Missile Compensatory Action
15. **[R20]** AR 00215432, Structural Calc Doesn't Accurately Reflect Licensing Basis

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## 9.2 Implementing References

1. AI-504, Guidelines for Cold Shutdown and Refueling
2. OP-421C, Operation Of The Auxiliary Building Overhead Crane  
FHCR-5
3. SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs
4. SEC-NGGC-2147, Reporting Of Safeguards and Fitness-For-Duty  
Events
5. SP-300, Operating Daily Surveillance Log

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## 10.0 DEFINITIONS

1. **CR3 location:** Latitude 28.9N, Longitude 82.7W
2. **Tornado:** Violently rotating column of air in contact with the ground which usually develops from severe thunderstorms or hurricanes.
3. **Tornado Watch:** Alerts an area of the possibility of a tornado and usually lasts for 2 to 4 hours.
4. **Tornado Warning:** Issued when a tornado has been sighted in the area. The Tornado Warning area is usually smaller than the area for which a Watch is declared.

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ATTACHMENT 1

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**List of Equipment To Be Verified Operable/Functional [R8] [R13] [R18]**

Component	Description	Operable/Functional (√)
DPBA-1A	1A BATTERY	
DPDS-1A	BATTERY DISTRIBUTION SWITCH	
DPBA-1B	1B BATTERY	
DPDS-1B	BATTERY DISTRIBUTION SWITCH	
DPBA-1C	NON-1E BATTERY BANK	
DPBA-1D	EFP-3 BATTERY BANK	
VBIT-1A	INVERTER 3A	
VBIT-1B	INVERTER 3B	
VBIT-1C	INVERTER 3C	
VBIT-1D	INVERTER 3D	
DPDP-1A	DISTRIBUTION PANEL	
DPDP-1B	DISTRIBUTION PANEL	
DPDP-1C	DISTRIBUTION PANEL	
DPDP-5A	DISTRIBUTION PANEL	
DPDP-5B	DISTRIBUTION PANEL	
DPDP-8A	DISTRIBUTION PANEL	
DPDP-8B	DISTRIBUTION PANEL	
DPDP-8C	DISTRIBUTION PANEL	
DPDP-8D	DISTRIBUTION PANEL	
VBDP-8	VITAL BUS DISTRIBUTION PANEL	
VBDP-9	VITAL BUS DISTRIBUTION PANEL	
VBDP-10	VITAL BUS DISTRIBUTION PANEL	
VBDP-11	VITAL BUS DISTRIBUTION PANEL	
EGDG-1A	EMERGENCY DIESEL GENERATOR	
EGDG-1B	EMERGENCY DIESEL GENERATOR	
EGDG-1C	EMERGENCY DIESEL GENERATOR	

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**ATTACHMENT 2**  
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## Operations Checklist for Storm Preparations Actions

### 1.0 Checklist: Operations

#### 1.1 Tornado Watch or Tornado Warning

#### CAUTION

Plant personnel shall **NOT** place themselves in a dangerous situation while performing the following actions.

1. Upon issue of a Tornado Watch, SUSPEND any spent fuel handling operations with FHCR-5 **AND** PERFORM the following in accordance with OP-421C [R5] (FSAR 9.3.2, 9.6.2.7):
  - a. LOWER the load to a safe location (if move in progress)..... ☐
  - b. MOVE FHCR-5 to the South end of the Auxiliary Building ..... ☐
  - c. SECURE the crane ..... ☐
2. PLACE Plant in CONDITION YELLOW ..... ☐
  - a. ENSURE informational flyers are placed at the NSOC providing basic details concerning plant status/system alignment (if conditions permit) ..... ☐
  - b. ENSURE Security has changed condition status at the NSOC (traffic signal at turnstiles) ..... ☐
  - c. REFER to the following guidance, as needed:
    - AI-504, Guidelines for Cold Shutdown And Refueling ..... ☐
3. Upon issue of a Tornado Watch, SECURE intake crane (CWCR-1) with two locking pins at hard stops..... ☐
4. Upon issue of a Tornado Warning, NOTIFY Security of severe weather condition ..... ☐
5. ANNOUNCE over PA system "CR3 is in a Tornado Watch (or Warning)" **AND** MAINTAIN limited access to outside areas ..... ☐

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ATTACHMENT 2

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### Operations Checklist for Storm Preparations Actions

#### 1.1 Tornado Watch or Tornado Warning (continued)

6. Upon issue of a Tornado Warning, PLACE Control Complex HVAC in Recirculation Mode per OP-409, Plant Ventilation System ..... ☐
7. NOTIFY security force that any visible sightings of a tornado should be immediately reported to Security Shift Supervisor and Control Room ..... ☐
8. LIMIT outside functions..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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## ATTACHMENT 2

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### **Operations Checklist for Storm Preparations Actions**

#### **1.2 Recovery from Violent Weather**

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. INITIATE recovery actions for the Violent Weather Committee members. .... ☐
  - b. ENSURE access to Energy Complex has been restored.
  - c. CONSIDER site access from major roads in the vicinity. .... ☐
  - d. NOTIFY Fleet Administration to ensure equipment is on hand to make emergency vehicle repairs..... ☐
2. NOTIFY appropriate Site and Fleet organizations to begin removal of unsafe industrial conditions such as:
  - Exposed and energized power lines ..... ☐
  - Unstable structures ..... ☐
  - Broken glass, and grass..... ☐
3. NOTIFY Fossil Units to determine overall damage ..... ☐
4. REQUEST support from corporate resources for immediate needs:
  - Water ..... ☐
  - Fuel oil..... ☐
  - Portable electric generators ..... ☐
  - Chain saws..... ☐
  - Hand tools..... ☐
  - Food..... ☐
  - Clothing..... ☐
  - Major equipment for debris removal..... ☐
5. DISPATCH a representative to Emergency Operations Facility or appropriate location for employee assistance..... ☐



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**Operations Checklist for Storm Preparations Actions**

**1.2 Recovery from Violent Weather (continued)**

6. CONSIDER dispatching an Emergency Preparedness representative to the Citrus County EOC to provide recovery interface support and State Watch Office updates ..... ☐
7. EVALUATE the need to involve corporate resources for long-term recovery actions. These may include:
  - Grid/transmission conditions that may affect Spent Fuel Cooling equipment reliability ..... ☐
  - Site communications capabilities ..... ☐
  - Site security capabilities ..... ☐
  - Support for impacted and/or displaced employees ..... ☐
8. IF Satellite dish was removed from TSC roof,  
THEN NOTIFY Maintenance to re-install dish on the TSC roof ..... N/A ☐ ☐
9. PERFORM the following as needed to restore to pre-storm conditions:
  - PERFORM PA announcements updating personnel of weather status ..... ☐
  - PROVIDE message for off duty operators using Employee Emergency Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
  - ESTABLISH a prioritized recovery plan:
    - (1) INSPECT the intake canal and bank for erosion or blockages.
      - Request Engineering review for bank erosion. .... ☐
    - (2) ENSURE Emergency Diesel Generators available..... ☐

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**ATTACHMENT 2**

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**Operations Checklist for Storm Preparations Actions**

**1.2 Recovery from Violent Weather (continued)**

10. PERFORM the following:
  - a. ENSURE Control Complex HVAC is in NORMAL mode of operation per OP-409, Plant Ventilation System..... ☐
  - b. RETURN fire brigade equipment to its proper location ..... ☐
  - c. IF intake screens are in SLOW speed, **THEN SECURE** intake screens per OP-604, Circulating Water System..... N/A ☐ ☐
11. IF de-energized, **THEN ENERGIZE** SDP-8A and SDP-8B, Chemical Storage Area sump pumps, by closing feeder breakers: ..... N/A ☐ ☐
  - SDP-8A – Water Treatment MCC 3A Breaker #2A ..... ☐
  - SDP-8B – Water Treatment MCC 3B Breaker #2A ..... ☐
12. IF heavy rains have caused the retention pond in the PA Trailer area (swamp) to reach overflow levels **AND** weather permits, **THEN PERFORM** the following: ..... N/A ☐ ☐
  - a. NOTIFY Chemistry to sample water in the swamp area. .... ☐
  - b. NOTIFY Maintenance to INSTALL a temporary dewatering pump and hose kit to direct water to a suitable storm drain. .... ☐
    - Dewatering Pump (Cat ID 9220238836)
    - Hose kit (CAT ID 9220243675)
  - c. **WHEN** Chemistry has completed sampling **AND** given approval for discharge to a storm drain, **THEN NOTIFY** Maintenance to COMMENCE dewatering of the swamp area. .... ☐
  - d. **WHEN** dewatering is complete **OR** weather conditions degrade, **THEN NOTIFY** Maintenance to STOP pumping activities **AND RETURN** equipment to stores..... ☐

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**ATTACHMENT 2**  
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### Operations Checklist for Storm Preparations Actions

#### 1.2 Recovery from Violent Weather (continued)

13. DETERMINE if plant condition "YELLOW" can be restored to "GREEN" ..... ☐
14. **WHEN** event is over, **THEN** UPDATE Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
15. TRANSMIT completed EM-220B to Records per RDC-NGGC-0001..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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ATTACHMENT 3

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## Nuclear Facility Services Violent Weather Guidelines

### 1.1 Tornado Watches, Warnings, and Tornadoes

1. ENSURE the following Tornado Missile Compensatory Actions are in place [R19] [R20]:
  - a. Green Room Flood Door in the lowered (normal storage) position (bottom of the door approximately 10 feet off of the floor) ..... ☐
  - b. Three Double Stack Concrete Radiation Barriers located in their designated areas on the south Berm as follows:
    - (1) REFER to Attachment 6, Double Stack Concrete Radiation Barrier Configuration Diagram for diagram of barrier layout. .... ☐
    - (2) PLACE three additional Concrete Radiation Barriers directly behind the existing three Concrete Radiation Barriers located in front of the Green Room roll up door. .... ☐
    - (3) OBTAIN or FABRICATE the following:
      - (Six) 2'-0" long sections of 4" schedule 40 pipe ..... ☐
      - (Six) 4'-6" long sections of 3/4" all-thread rod ..... ☐
      - (Twelve) 1/2" x 4" x 4" washer plates with (1) 13/16" diameter hole at the centerline ..... ☐
      - (Twelve) 3/4" nuts to correspond to the all-thread rod. .... ☐

#### NOTE

Minor adjustments to Concrete Radiation Barrier position may be required to allow installation of pipe sections between barriers.

- (4) Using existing holes in the barriers, CONNECT Concrete Radiation Barrier rows using pipe sections between the barriers and secured with the all thread rod. .... ☐
  - c. Man Lift JLG-600S or equipment or barriers providing an equivalent blocking profile and weight parked in designated area in front of Hot Machine Shop Roll-up door ..... ☐

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**ATTACHMENT 3**

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### **Nuclear Facility Services Violent Weather Guidelines**

#### **1.1 Tornado Watches, Warnings, and Tornadoes (continued)**

##### **NOTE**

Include roof areas of the following buildings: Turbine Building, Intermediate Building, Auxiliary Building, Control Complex, Technical Support Center, Ready Warehouse, Cold/Hot Shops, and Rusty Building.

2. IDENTIFY loose materials and debris which could become missiles in a strong wind **AND REMOVE** them to maximum extent possible. .... ☐
3. SECURE Nitrogen bottles on the 95' TB in racks. .... ☐
4. SECURE Sea - Lands, LSA boxes, drums, and other items that may become missiles. .... ☐
5. NOTIFY Shift Manager or EC of the status of associated actions ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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ATTACHMENT 3

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### Nuclear Facility Services Violent Weather Guidelines

#### 1.2 Recovery from Violent Weather

1. **WHEN** the event is over, **THEN PERFORM** an evaluation of the area for damage and to assist in development of a recovery plan ..... ☐
2. CALL-IN adequate additional personnel for clean up..... ☐
3. PERFORM walk-downs to determine the following **AND PROVIDE** results to the Shift Manager:
  - Status of boats, boat dock and moorings at intake canal ..... ☐
  - Status of all trash cans from berm and parking lots (potentially relocated by storm winds) ..... ☐
  - Status all windows and doors..... ☐
4. RETURN Sea - Lands, LSA boxes, and drums to their normal configuration ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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**ATTACHMENT 4**

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### Security Violent Weather Guidelines

#### 1.1 Security

1. NOTIFY Security personnel of current violent weather condition and of the declared Tornado Watch or Tornado Warning ..... ☐
2. REVIEW CR3 Safeguards Contingency Plan and SS-206 ..... ☐
3. NOTIFY Security Force that any visible sightings of a tornado should be immediately reported to the Control Room and Security Shift Supervisor ..... ☐
4. LIMIT outside functions ..... ☐
5. IF regulatory commitments are **NOT** maintained due to extended Tornado Warning, **THEN** REFER to SEC-NGGC-2147 for NRC reportability process ..... N/A ☐ ☐
6. NOTIFY Shift Manager or EC of the status of associated actions ..... ☐

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**ATTACHMENT 5**

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### **Major Projects Violent Weather Guidelines**

#### **1.1 Major Projects**

1. DETERMINE if trailers should remain occupied based on weather forecast **AND** NOTIFY SM (or EC) of decision. .... ☐
2. PERFORM applicable actions of EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building. .... ☐
3. NOTIFY SM or EC of the status of associated actions ..... ☐

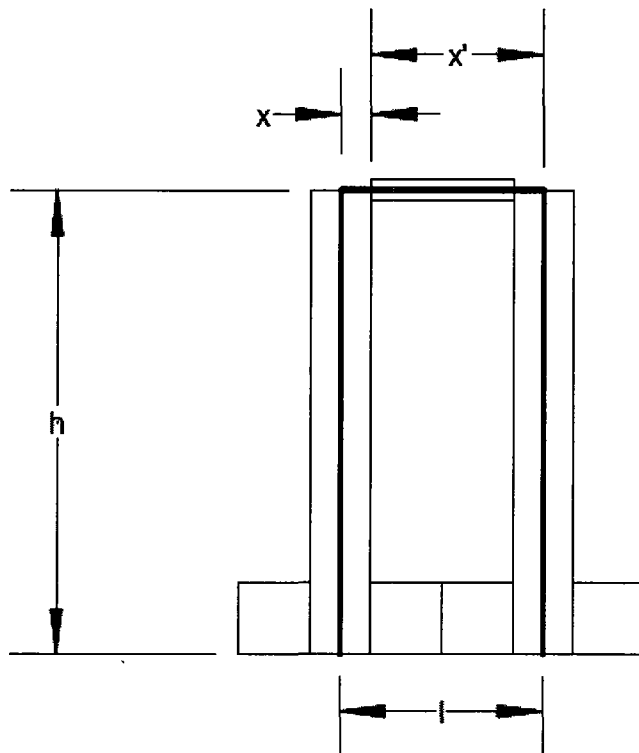
Completed by: \_\_\_\_\_ Date: \_\_\_\_\_



**Double Stack Concrete Radiation Barrier Configuration Diagram**

**NOTES**

- The existing concrete radiation barriers lined up on the South berm are 6'-6" high. Calculations performed under NCON 215432 show that two barriers placed back-to-back and tied together with two pipe sections (as shown below) will prevent a large tornado missile from reaching the Auxiliary Building.
- Two 4" Schedule 40 pipes are required to connect the two barriers.





1242  
Reference Use

CRYSTAL RIVER UNIT 3  
EMERGENCY PREPAREDNESS PROCEDURE  
NON-SAFETY RELATED  
**EM-220C**

**VIOLENT WEATHER (TROPICAL  
STORM/APPROACHING HURRICANE)**

REVISION 0

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REVISION SUMMARY
PRR 591385 DESCRIPTION
<p><b>NOTE:</b></p> <ol style="list-style-type: none"> <li>1. Writers and Reviewers: Ensure any changes to this procedure that affect information contained in Emergency Respond Facility posters, enclosures, briefing cards, guidelines etc. are made to those items as well.</li> <li>2. Writers and Reviewers: Changes to certain parts of this procedure may impact other Emergency Plan Implementing Procedures.</li> </ol> <ul style="list-style-type: none"> <li>• New procedure. Based on the decision to decommission CR3, the original EM-220 is being split into a series of procedures (EM-220A through EM-220C) specific to each weather occurrence and streamlined, based on new staffing and station/equipment priorities. EM-220 will remain the master document that drives the implementation of the new EM-220 series procedures.</li> <li>• Added Internet Weather Services and Citrus County EOC to list of weather information providers in step 4.0.13 per EP impact review comments.</li> <li>• Attachment 4, Section 1.4, Step 6: Added step to consider dispatching an Emergency Preparedness representative to the Citrus EOC to provide recovery interface support and State Watch Office updates.</li> <li>• Attachment 2, steps 4.2.3, 4.3.3, 4.3.5, 4.4.3, 4.4.5: Annotated references to EP personnel associated with TSC/EOF staffing during hurricanes as "(as available)" per EP impact review comments. EP staff may have already located to the Citrus County EOC and EP staffing levels may not support staffing EOC, TSC and EOF.</li> <li>• Attachment 2, steps 4.3.3, 4.4.3: Annotated references to Warehouse/Procurement staff position in the TSC during hurricanes as "(not part of TSC staff)" per impact review comments and EP group concurrence. Warehouse/Procurement personnel are not qualified to ERO positions in the TSC.</li> </ul>

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## 1.0 PURPOSE

1. This procedure is an Emergency Plan Implementing Procedure (EPIP). Any revisions require a 50.54(q) screening for Emergency Plan impact.
2. This procedure has been implemented by the Violent Weather Committee to provide guidance with the plant defueled.
3. This procedure provides staging and preparation guidance during for Tropical Storms or an Approaching Hurricane.
4. This procedure implements activities to ensure plant safety by having necessary personnel, equipment, and supplies on hand.
5. Implementation of this procedure does **NOT** mean the Radiological Emergency Response Plan (RERP) has been entered.
6. This procedure ensures that the Violent Weather Committee is convened to discuss implementation of storm preparations if warranted by the potential size and direction of storm.
7. The Committee reconvenes as necessary based on hurricane advisory from National Hurricane Center to discuss actions and activities. [R17]

## 2.0 RESPONSIBILITIES

1. The names and phone numbers of personnel to contact for activation of the Violent Weather Committee are listed in Violent Weather Committee and Volunteer Phone Directory, maintained on the Emergency Preparedness Web Page.
2. PGM or designee establishes an account code for storm preps.
3. PGM or designee coordinates CR3 response during preparation for a hurricane or other violent weather warranting activity of Violent Weather Committee and ensures EM-220 documents these activities.
4. PGM or Emergency Coordinator (EC) may commence recovery activities when conditions are forecast to remain clear. A Hurricane Center update is **NOT** required.
5. The Shift Manager (SM) or designee is responsible for the overall implementation of this procedure.
6. The administration and implementation of this procedure will take place in the Work Control Center or Main Control Room.

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## 2.0 RESPONSIBILITIES (continued)

7. EC ensures implementation of EM-202, Duties of the Emergency Coordinator, in conjunction with implementation of this procedure.

## 3.0 PREREQUISITES

None

## 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES

1. Enclosure 1 of EM-202 references Emergency Action Levels to consider during violent weather.
2. To prevent potential damage, Diesel Generators are **NOT** to be loaded onto the grid during severe weather conditions.
3. Tropical storms or hurricanes that produce strong east to west winds may cause blow out conditions, reducing level of Ultimate Heat Sink. If coupled with a low tide, even a 30 mph wind could be a cause for concern.
4. Since preparations for a hurricane are extensive, consider that pre-hurricane rain and winds may hamper preparation efforts. Take a conservative approach and start efforts 48 to 36 hours before winds or flooding become problems.
5. Due to possible telephone problems and plant access problems, supervisors should determine availability of their personnel during and after the storm. A MAXIMUM of 75 personnel, excluding Security personnel, may be at CR3 during the storm.
6. Evacuate non-essential personnel in Protected Area and visitors in Owner Controlled Area in a timely manner. As flooding concerns increase, evacuation efforts will become difficult.
7. When hurricane winds quickly subside and rain stops, this could mean center of storm or "eye" is over the area. It is recommended personnel remain indoors since strong winds begin blowing again from opposite direction as the second half of hurricane passes.
8. Keep outside activities to a minimum during high winds to prevent injuries from flying debris.
9. Severe weather conditions are **NOT** over until National Weather Service indicates there is no longer a threat to area.

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#### 4.0 PRECAUTIONS, LIMITATIONS, AND NOTES (continued)

10. Flooding level for TSC is 101' 6" or approximately 9' above mean high tide. (Installation of flood barriers allows water level to reach 105' 6"). Consider moving TSC activities to Control Complex before conditions prevent an orderly transition or flood doors are closed.
11. Tropical storms or hurricanes can cause an influx of grass/debris to enter the intake canal. Refer to AI-574, Sea Grass or Debris Influx Plan
12. Consideration should be given to installing the New Fuel Storage Vault missile shields when the CR3 site is within a Tropical Storm or Hurricane five-day track as issued by the National Oceanic and Atmospheric Administration.
13. Expect information on approaching severe weather conditions to be available as follows:
  - The National Weather Service (NWS) issues warnings.
  - The National Weather Service may be contacted for reliable information if other means of obtaining the information is **NOT** available.
    - (813) 645-2323 (meteorologist)
    - (813) 645-2506 (recorded)
    - (813) 645-4111 (emergency only)
  - The Distribution System Storm Center declares a major storm, implements the company's storm plan and notifies employees.
    - The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407) 942-9581.
  - Internet Weather Services
  - Citrus County Emergency Operations Center (EOC)

#### 5.0 SPECIAL TOOLS AND EQUIPMENT

None

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**6.0 ACCEPTANCE CRITERIA**

None



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## 7.0 INSTRUCTIONS

### NOTES

- EM-220, Attachment 2, Plant Elevation Data, may be referenced to determine the elevation at which various pieces of equipment are affected by flooding.

## 7.1 Potential/Approaching Tropical Storm Or Potential/Approaching Hurricane (All Categories)

### 7.1.1 Plant General Manager (PGM)

1. IMPLEMENT PGM actions per Attachment 4 Section 1.0, Plant General Manager (pgm)..... ☐

### 7.1.2 Shift Manager (SM)

1. REVIEW EM-202 for existing applicable Emergency Action Levels..... ☐
2. NOTIFY Site Duty Manager to complete applicable notifications per AD-OP-ALL-0101, Event Response and Notifications ..... ☐
3. NOTIFY Violent Weather Committee organizations to perform Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) sections of the associated Attachment 4, Violent Weather Committee Checklists for Storm Preparations Actions Checklist ..... ☐
4. IMPLEMENT actions of Attachment 4 Section 2.0, Operations. .... ☐
5. MAINTAIN the status of on-going actions of the Violent Weather Committee ..... ☐
6. IF PA trailers are occupied, THEN PERFORM the following: ..... N/A ☐ ☐
  - DETERMINE if trailers should remain occupied based on weather forecast..... ☐
  - IF evacuation is recommended, THEN NOTIFY Nuclear Upgrades and Outage & Refueling Services (NU) designee to perform applicable actions of EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building. .... N/A ☐ ☐

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**7.1.3 Violent Weather Committee Members**

1. PERFORM Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) sections of the associated Attachment 4, Violent Weather Committee Checklists for Storm Preparations Actions Checklist..... ☐

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## 7.2 Recovery From Violent Weather

### 7.2.1 Plant General Manager (PGM)

1. IMPLEMENT PGM actions per Attachment 4 Section 1.4, Recovery from Violent Weather ..... ☐

### 7.2.2 Shift Manager (SM)

1. NOTIFY Violent Weather Committee organizations to perform applicable Recovery from Violent Weather sections of the associated Attachment 4, Violent Weather Committee Checklists for Storm Preparations Actions Checklist ..... ☐
2. IMPLEMENT Operations Actions per Attachment 4 Section 2.4, Recovery from Violent Weather ..... ☐
3. MAINTAIN the status of on-going actions of the Violent Weather Committee ..... ☐
4. **IF** heavy rains have caused the retention pond in the PA area (swamp) to reach overflow levels **AND** weather permits, **THEN PERFORM** the following: ..... N/A ☐ ☐
  - a. NOTIFY Chemistry to sample water in the swamp area. .... ☐
  - b. NOTIFY Maintenance to **INSTALL** a temporary dewatering pump and hose kit to direct water to a suitable storm drain. .... ☐
    - Dewatering Pump (Cat ID 9220238836)
    - Hose kit (CAT ID 9220243675)
  - c. **WHEN** Chemistry has completed sampling **AND** given approval for discharge to a storm drain, **THEN COMMENCE** dewatering of the swamp area..... ☐
  - d. **WHEN** dewatering is complete **OR** weather conditions degrade, **THEN STOP** pumping activities **AND RETURN** equipment to stores. .... ☐

### 7.2.3 Violent Weather Committee Members

1. **PERFORM** applicable Recovery from Violent Weather sections of Attachment 4, Violent Weather Committee Checklists for Storm Preparations Actions Checklist ..... ☐

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## 8.0 RECORDS

1. Completed EM-220C is transmitted to Records.

## 9.0 REFERENCES

### 9.1 Developmental References

1. EOP-012, Station Blackout
2. EM-202, Duties of the Emergency Coordinator
3. FSAR Sections 1.9.7; 2.4.2.4; 2.4.2.4.1; 9.3.2; 9.6.2.7;
4. NUMARC 87-00, Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors
5. Radiological Emergency Response Plan
6. SOER 02-1, Severe Weather
7. AR 00337637, EM-220 Tornado Missile Compensatory Action
8. AR 00215432, Structural Calc Doesn't Accurately Reflect Licensing Basis
9. EC 63018, Infrastructure Additions to Support 16R Facility Requirements.
10. CR3 Safeguards Contingency Plan
11. AI-574, Sea Grass or Debris Influx Plan
12. AI-4000, Conduct of Emergency Preparedness and Schedule for Radiological Emergency Response Plan Maintenance
13. EM-102, Operation of the Technical Support Center (TSC)
14. EMG-ESGF-00003, Emergency Action Plan – Crystal River Energy Complex Site Administration Building
15. SS-206, Security Safeguard Contingency Events
16. EC 73459, ISFSI Buildings and Utilities Relocation
17. EC 75114, Part 73 Compliance, New Security UPS.

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## 9.1 Developmental References (continued)

18. AR 438875, Implementation Plan for LAR #310: ISFSI Crane FHCR-5 (LAR #310, Amendment # 239)
19. IER L1-11-02, Fukushima Daiichi Nuclear Station Fuel Pool Loss of Cooling and Makeup
20. **[R3]** NOCS 100170
21. **[R4]** NOCS 100521
22. **[R5]** NOCS 100563
23. **[R6]** NOCS 40338
24. **[R7]** NOCS 40342
25. **[R8]** NOCS 40344
26. **[R10]** NOCS 40346
27. **[R12]** NOCS 40348
28. **[R13]** NOCS 40349
29. **[R17]** NOCS 40350
30. **[R18]** NOCS 40588
31. **[R19]** CAPR# 169029-04

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## 9.2 Implementing References

1. AAG-005, Contingencies for Loss of SF Pool Level
2. AAG-008, Contingencies for Loss of All AC and DC Power
3. AI-504, Guidelines for Cold Shutdown and Refueling
4. AP-406, Loss of Spent Fuel Cooling System
5. OP-408, Nuclear Services Cooling System
6. OP-421C, Operation Of The Auxiliary Building Overhead Crane  
FHCR-5
7. SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs
8. SEC-NGGC-2147, Reporting Of Safeguards and Fitness-For-Duty  
Events
9. SP-300, Operating Daily Surveillance Log

**10.0 DEFINITIONS**

1. **CR3 location:** Latitude 28.9N, Longitude 82.7W

**NOTE:**

Definitions below are listed in ascending order of severity level of storm category

2. **Tropical Storm:** Weather disturbance of large size with winds of 39 to 73 mph, rotating in a counterclockwise direction, accompanied by torrential rains and an area of low barometric pressure.
  - a. **Potential Tropical Storm:** Tropical storm conditions are possible at CR3 within 36 hours.
  - b. **Approaching Tropical Storm:** Tropical storm conditions are expected at CR3 in 12 to 24 hours.
3. **Hurricane:** Weather disturbance of large size with winds equal to or greater than 74 mph, rotating in a counterclockwise direction, with a well defined low barometric pressure center, called the EYE.
  - a. **Potential Hurricane:** Hurricane conditions are possible at CR3 within 36 hours.
  - b. **Approaching Hurricane:** Hurricane conditions are expected at CR3 within 24 hours.

Storm Category	Wind Speed (mph)
Tropical Storm	39 – 73
1	74 – 95
2	96 – 110
3	111 – 129
4	130 – 156
5	≥ 157

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## 10.0 DEFINITIONS (continued)

- c. **Hurricane Watch:** Per the National Hurricane Center, a Hurricane Watch is defined as follows:
  - An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are possible within the specified area in association with a tropical, subtropical, or post-tropical cyclone.
  - Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued **48 hours** in advance of the anticipated onset of tropical storm force winds.
- d. **Hurricane Warning:** Per the National Hurricane Center, a Hurricane Warning is defined as follows:
  - An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are expected somewhere within the specified area in association with a tropical, subtropical, or post-tropical cyclone.

Because hurricane preparedness activities become difficult once winds reach tropical storm force, the warning is issued **36 hours** in advance of the anticipated onset of tropical storm force winds. The warning can remain in effect when dangerously high water or a combination of dangerously high water and waves continue, even though winds may be less than hurricane force.



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**List of Equipment To Be Verified Operable/Functional [R8] [R13] [R18]**

<b>Component</b>	<b>Description</b>	<b>Operable/Functional (√)</b>
DPBA-1A	1A BATTERY	
DPDS-1A	BATTERY DISTRIBUTION SWITCH	
DPBA-1B	1B BATTERY	
DPDS-1B	BATTERY DISTRIBUTION SWITCH	
DPBA-1C	NON-1E BATTERY BANK	
DPBA-1D	EFP-3 BATTERY BANK	
VBIT-1A	INVERTER 3A	
VBIT-1B	INVERTER 3B	
VBIT-1C	INVERTER 3C	
VBIT-1D	INVERTER 3D	
DPDP-1A	DISTRIBUTION PANEL	
DPDP-1B	DISTRIBUTION PANEL	
DPDP-1C	DISTRIBUTION PANEL	
DPDP-5A	DISTRIBUTION PANEL	
DPDP-5B	DISTRIBUTION PANEL	
DPDP-8A	DISTRIBUTION PANEL	
DPDP-8B	DISTRIBUTION PANEL	
DPDP-8C	DISTRIBUTION PANEL	
DPDP-8D	DISTRIBUTION PANEL	
VBDP-8	VITAL BUS DISTRIBUTION PANEL	
VBDP-9	VITAL BUS DISTRIBUTION PANEL	
VBDP-10	VITAL BUS DISTRIBUTION PANEL	
VBDP-11	VITAL BUS DISTRIBUTION PANEL	
EGDG-1A	EMERGENCY DIESEL GENERATOR	
EGDG-1B	EMERGENCY DIESEL GENERATOR	
EGDG-1C	EMERGENCY DIESEL GENERATOR	

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## Employee Considerations Before, During, And After Storm

### NOTES:

- Non-Essential Personnel (those **NOT** identified below), are more valuable off-site helping in personal and county recovery efforts and should **NOT** return to work until needed.
- The most current version of the Violent Weather Committee Volunteers list is found on the Emergency Preparedness Web page located at:  
[http://neggweb/cr3emergencypreparedness/out/violent\\_weather\\_directory.pdf](http://neggweb/cr3emergencypreparedness/out/violent_weather_directory.pdf)

### 1.0 THREE GROUPS OF STORM PERSONNEL

- **GROUP 1: Storm Preparations Crew** - Individuals on site prior to storm, making storm preparations.
- **GROUP 2: Storm Crew** - Pre-designated personnel (chosen from Violent Weather Committee/Volunteers list) returning to site approximately 6-10 hours before landfall or before sustained tropical force winds are predicted in Citrus County, and remaining on site during storm.
- **GROUP 3: Storm Recovery Crew** - Individuals from Group 1 and from the Violent Weather Committee/Volunteers list **NOT** chosen as Group 2.

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**Employee Considerations Before, During, And After Storm**

**2.0 SUPERVISOR ACTIONS/DECISIONS TO BE MADE PRIOR TO BRIEFINGS:**

**1. GROUP 1:**

- a. Storm Preparations Crews should **NOT** be same as Group 2.
- b. Once Group 2 is decided upon, Group 1 Storm Preparations Crews should report as scheduled for at least two shifts, dependent on preparations needed and time before landfall.
- c. Ideally, Group 1 would be home 6-10 hours before landfall or before sustained tropical force winds are predicted for Citrus County.

**2. GROUP 2:**

- a. DETERMINE who is needed on site during storm. These people should be chosen first from Violent Weather Committee/Volunteers list and be limited to number designated in the Staffing Levels.

**3.0 CONSIDERATIONS FOR STAFFING LEVELS**

1. There are two reasons that personnel are brought onsite to staff the plant during a storm:
  - a. Provide adequate staff to safely operate and maintain the plant.
  - b. Pre-staff ERO members that may **NOT** be able to gain access to the site (due to debris or high water) if the ERO is activated.
2. To limit the number of personnel on site, those individuals selected should be there for both reasons listed above. The PGM or designee may alter staffing levels at his discretion.

**Employee Considerations Before, During, And After Storm**

**3.0 CONSIDERATIONS FOR STAFFING LEVELS (continued)**

3. The following staffing guidelines are suggested for each level of storm intensity. There are many variables that would result in establishing staffing levels that are more or less than what is listed below. Variables to consider for altering staffing levels include:
- Expected location of landfall (a strong storm far North or South of plant may **NOT** require levels listed under Section 4.0 of this Enclosure)
  - Expected severity of the storm
  - Direction of travel (from Gulf or from East coast)
  - Expected Storm surge
  - Timing of landfall and storm force winds in Citrus County (staff more in advance if winds are expected in the middle of the night)
  - Protective actions ordered by officials in Citrus County

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**Employee Considerations Before, During, And After Storm**

**4.0 STAFFING LEVELS**

**4.1 Tropical Storm**

1. **NO** additional staff; unless storm surge is expected to significantly restrict or prevent access.
2. **IF** site access could be blocked by storm surge, **THEN** staff per category 1 hurricane.

**4.2 Category 1 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	3	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Mgmt.
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support

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**4.2 Category 1 Hurricane (continued)**

4. **OSC** –The OSC staffing represents the on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	2	Electrical Maintenance
Emergency Repair Team – I & C	1	I & C Maintenance
Emergency Repair Team – Mechanical	2	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. and Ops)	5	Facility Service/Operations support
Emergency Sample Team	2	Chemistry Support
Radiation Monitoring Team	13	Health Physics/Engineering support

(4-5 of these can be HP Responders. Two of the HPs should be on dose assessment team)

5. **EOF**– None

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**Employee Considerations Before, During, And After Storm**

**4.3 Category 2 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP and additional support staff.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	3	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Management
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support
Accident Assessment Team Ops Support	1	Operations Support
Accident Assessment Team Engineer	1	Engineering Support
AAT Communicator	1	Operations Support
Plant Computer Specialist	1	Engineering Support
Warehouse/Procurement (not part of TSC staff)	1	Materials Support

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### Employee Considerations Before, During, And After Storm

#### 4.3 Category 2 Hurricane (continued)

4. **OSC** –The OSC staffing represents the On-Shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	2	Electrical Maintenance
Emergency Repair Team – I & C	1	I & C Maintenance
Emergency Repair Team – Mechanical	2	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. And Ops)	5	Facility Service/Ops support
Emergency Sample Team	2	Chemistry Support
Radiation Monitoring Team	13	Health Physics/Engineering support
(4-5 of these can be HP Responders. Two of the HPs should be on dose assessment team)		



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**Employee Considerations Before, During, And After Storm**

**4.3 Category 2 Hurricane (continued)**

5. **EOF** – The EOF staffing represents positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>
EOF Director	1
Report Prep Director	1
Technical Support Coordinator	1
Radiation Controls Manager	1
Emergency Preparedness (as available) or Facility Manager	1

- a. The EOF is located approximately one mile East of US 19 and may be in a mandatory or precautionary evacuation area due to storm surge (this information can be obtained from the Citrus County Emergency Operations Center).
- b. **IF** storm surge is **NOT** predicted to affect the area of the EOF, **THEN** staffing the simulator building with EOF staff is appropriate. The simulator building is more hardened than the EOF and it contains key offsite notification systems.
- c. Local EMS may also request to stage one or two ambulance crews at the EOF if PE personnel are also there.
- d. The following locations for the minimum EOF staff should be considered depending on storm variables (EP will coordinate establishing the alternate locations if necessary):
  - EOF Simulator Building
  - Seven Rivers Regional Medical Center
  - Lecanto Government Building
  - Inverness Progress Energy (PE) Business Office
- e. There are MREs stored in the EOF. It is the responders' responsibility to arrange for other food if desired. If an alternate location is used for staffing, the MREs should be transported to that location unless food is already available.

**Employee Considerations Before, During, And After Storm****4.4 Category 3-5 Hurricane**

1. **Control Room** – Two Shifts of Operators
2. **Security** – Per Security Plan
3. **TSC** – The TSC staffing represents two shifts of the minimum staff positions required to declare the TSC operational and two shifts of the remaining on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP and additional support staff.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Coordinator (minimum staff)	2	CR3 Management
Report Preparation (minimum staff)	5	Engineering Support
Security Coordinator (minimum staff)	2	Security Management
OSC Manager (minimum staff)	2	Maintenance Mgmt.
Accident Assessment Coordinator (minimum staff)	2	Operations Support
Radiation Controls Coordinator (minimum staff)	2	HP Management Support
Emergency Preparedness (as available)	1	Emergency Preparedness Support
Accident Assess. Team Ops Support	2	Operations Support
Accident Assessment Team Engineer	2	Engineering Support
AAT Communicator	2	Operations Support
Plant Computer Specialist	2	Engineering Support
Warehouse/Procurement (not part of TSC staff)	2	Materials Support

4. **OSC** –The OSC staffing represents two shifts of the on-shift, 30 minute, and 60 minute positions listed in Table 6.1 of the RERP except for HP and Fire Brigade personnel.

<b>ERO Position</b>	<b># to fill</b>	<b>Violent Weather Responsibility</b>
Emergency Repair Team – Electrical	4	Electrical Maintenance
Emergency Repair Team – I & C	2	I & C Maintenance
Emergency Repair Team – Mechanical	4	Mechanical Maintenance
Fire Brigade (can be drawn from Maint. and Ops)	10	Facility Service/Ops support
Emergency Sample Team	4	Chemistry Support
Radiation Monitoring Team	20	Health Physics/Engineering support
(8-9 of these can be HP Responders. Four of the HPs should be on dose assessment team)		

**Employee Considerations Before, During, And After Storm****4.4 Category 3-5 Hurricane (continued)**

5. **EOF** – The EOF staffing represents positions listed in Table 6.1 of the RERP.

<b>ERO Position</b>	<b># to fill</b>
EOF Director	1
Report Prep Director	1
Technical Support Coordinator	1
Radiation Controls Manager	1
Emergency Preparedness (as available) or Facility Manager	1
Dose Assessment Team	2
Technical Support Team – Operations	1
Technical Support Team – Engineer	1

- a. The EOF is located approximately one mile East of US 19 and may be in a mandatory or precautionary evacuation area due to storm surge.
- b. **IF** storm surge is **NOT** predicted to affect the area of the EOF, **THEN** staffing the simulator building with EOF staff is appropriate. This information can be obtained from the Citrus County Emergency Operations Center.
- c. Local EMS may also request to stage one or two ambulance crews at the EOF if PE personnel are also there.
- d. The following locations for the minimum EOF staff should be considered depending on storm variables (EP will coordinate establishing the alternate locations if necessary):
  - EOF Simulator Building
  - Seven Rivers Regional Medical Center
  - Lecanto Government Building
  - Inverness Progress Energy (PE) Business Office

## Employee Considerations Before, During, And After Storm

### 4.4 Category 3-5 Hurricane (continued)

- e. There are MREs stored in the EOF. It is the responder's responsibility to arrange for other food if desired. If an alternate location is used for staffing, the MREs should be transported to that location unless food is already available.
- f. DETERMINE location pre-designated by Security **AND VERIFY** time these employees can leave their personal vehicles and be picked up if they need a ride to site prior to storm. (Personal vehicles should **NOT** be on site during storm.)

### 5.0 TOPICS TO DISCUSS AT BRIEFINGS:

1. Safety meetings are held with all Groups. Examples of topics to discuss may include such items as:

- Schedules
- Specific Job assignments
- Safety Harnesses
- Radio – 1 per crew
- Weather Conditions
- Face Shield, gloves, boots, strap on hard hat
- Flying debris/outside work
- Energized equipment
- Radiation Surveys
- Food availability

**NOTE:** If individuals are **NOT** on site at time storm preparations are to begin, but will be requested to remain on site during storm, they should be notified as soon as possible and given same information below that is given those leaving site and returning for storm duration.

2. In addition to safety meetings, the following should be discussed with designated group:

#### a. **GROUP 2:**

- (1) ALLOW Group 2 to go home to ensure the safety of their homes and families before returning to site at a pre-designated time (approximately 6-10 hours before storm or before tropical force winds are predicted in Citrus County).
- (2) REMIND them to establish how their families can be reached after the storm.

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## **Employee Considerations Before, During, And After Storm**

### **5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)**

- (3) NOTIFY them of time and location they will be picked up if they can't get a ride to work.
- (4) NOTIFY them that food, probably Meals-Ready-to-Eat (MREs), water, and sleeping accommodations will be available on site for storm duration. Personnel will remain in the Control Complex during the hurricane unless otherwise directed.

#### **NOTE:**

For an expected significant storm surge at CR3, the Control Complex should be used for CAT 1 and 2 hurricanes.

- (5) Guidelines for sleeping/staging areas for those in **GROUP 2**
  - (a) Before Landfall:
    - CCB, PAB (floors 2-4), and NAB
  - (b) During Storm:
    - Tropical Storm/Cat 1&2 Hurricane – CCB and PAB (floors 2-3)
    - Cat 3-5 Hurricane – Control Complex 145' & 124' elev. (Alt. TSC)

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**5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)**

- (6) NOTIFY them they will be the initial group to assess plant damage and may be on site for 2-3 days, based on accessibility to the site. Communications may be limited or **NOT** available. They should be requested to bring back to site with them items such as:
  - medication for 2-3 days
  - food for 1 or 2 meals if they want
  - additional non-perishable snack food if they want
  - Legacy PE or Duke Energy badge to show Citrus County Sheriff's Office (CCSO) when traveling to site
  - change of clothes
- (7) PROVIDE them with CR3's Emergency Information Phone number (563-4987) to be used to obtain departmental scheduling information and other storm information as required.

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### Employee Considerations Before, During, And After Storm

#### 5.0 TOPICS TO DISCUSS AT BRIEFINGS: (continued)

##### b. GROUP 3:

- Recovery crews should know they are expected to report to work as previously scheduled or as soon as conditions are safe for travel.

#### NOTE

Travel routes are dictated by Citrus County Sheriff's Office and personal abilities.

- IF storm is severe **AND** either of the following conditions exist, **THEN** employees should **GO TO** the Inverness Business Office for instructions the following day as soon as conditions permit:
  - (a) Communications are **NOT** functioning at the plant .. N/A ☐ ☐
  - OR**
  - (b) Travel routes to the plant are still considered hazardous..... N/A ☐ ☐

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ATTACHMENT 3

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**Violent Weather Supplies**

	Item	CAT ID	Quantity
<b>OPERATIONS</b>	<b>(Located in Warehouse)</b>		
	EGDG Diesel Engine Lube Oil	1430451	330 gal
<b>MAINTENANCE</b>	<b>(Located at Warehouse)</b>		
	- Lumber hurricane 2" x 4" x 12'	01380701	75
	- Plywood 4' x 8' x ¾"	01380714	50
	- Filter Poly (Engine) (24" x 24" x 12")	60250440	36
	- 24" x 24" x 1" Air Filters	52602156	190
	- 24" x 24" x 2" Air Filters	52602157	2
	(Located inside Protected Area)		
	- TSC Aluminum Flood Barrier Protection	9220100499	
	- Sump Pump Tool Box	9220128088	1
	- Sandbags (filled) 12" x 20"		500
<b>STORES</b>	<b>(Re-allocate to violent weather supplies)</b>		
	Filter (EGDG fuel)	62720211	4
<b>SECURITY</b>	<b>(Located at Security Training Storage)</b>		
	Bedding (Bed Rolls, Air Mattresses, Sheets)		40



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**Violent Weather Supplies**

**MAINTENANCE**

**(Located at Cold Tool Crib)**

Shovel-RP Fiberglass Handle 48"

Shovel-Sq.Pt. 5'

Flashlight, 2 cell

Rope P/D Blend 3/8"

Rope P/D Blend 1/2"

Boots Steel Toe 8 snug leg

Boots Steel Toe 9 snug leg

Boots Steel Toe 10 snug leg

Boots Steel Toe 11 snug leg

Rain suit, 2 pc jacket/hood/overhauls, S

Rain suit, 2 pc jacket/hood/overhauls, M

Rain suit, 2 pc jacket/hood/overhauls, L

Rain suit, 2 pc jacket/hood/overhauls, X

Sandbag polypro, 20" x 36"

Sandbag burlap, 12" x 20"

Duct Tape, 2"

Spray Waterproof IgNCSion

Battery, Carbon Zinc D Flashlight

Wire tie 9" 100 lb

Chain Fall 4TN CM

Filter Poly (Ventilation)

Filter (EFP-3 air intake)(Not Applicable in Defueled Condition)

Pin Shear Alarm Device

Gatoraid (Orange)

Gatoraid (Lime)

**CAT ID**

**Quantity**

01390949

6

01390948

6

00431204

50

00432173

1

00432174

1

01035185

15

01035187

50

01035189

25

01035191

25

01036766

15

01036767

50

01036768

25

01036769

10

01036890

500

01036891 (SANDBAG)

1,000

01379298

500

01260277

20

VMI (BATTERY)

200

VMI (WIRE TIE)

1

2

60200237

75

62640749

2

61541691

35

VMI (GATORADE, ORANGE)

12 cases

VMI (GATORADE, LIME)

12 cases

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**Violent Weather Supplies**

**FOOD AND SUPPLIES**

**(Located at Cold Tool Crib)**

MREs Ready to Eat (70-75 personnel for 7 days per  
Attachment 1, Checklist 1, Subsection 9.4)

01700346

123 cases

Mattress, Air, 76" x 28-1/2"

70

Blanket, twin poly/cotton

70

Sheets

90

**OPERATIONS**

**(Located on 124' Control Complex)**

MREs Ready to Eat (7-day supply for Operating Shift)

01700346

**RECEIVING WAREHOUSE**

Water (5 gal. Containers)

14

**NON-CAT ID ITEMS**

1. **FOOD AND SUPPLIES** (Located at Cold Tool Crib)

- 100 lbs. Coffee
- 20 lbs. Sugar
- 25 lbs. Coffee Creamer
- 2,000 each Plastic Knives
- 2,000 each Plastic Forks
- 2,000 each Plastic Spoon

### Violent Weather Supplies

#### 2. MEDICAL SUPPLIES (Located at Cold Tool Crib)

- Maintain the following over-the-counter items (or equivalents) for distribution during emergencies:

	(√)		(√)
Aspirin		Eye Drops	
Acetaminophen		Sore Throat Lozenges	
Ibuprofen		Antibiotic Ointment	
Allergy/Cold Preparation		Anti Diarrhea Agent	
Benadryl		Anti Nausea Agent	
Cough Tablets		Nasal Decongestant Spray	
Antacid Tablets		Moisturizing Hand Lotion	
Hydrocortisone Cream		Muscle Liniment	

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**Violent Weather Supplies**

3. Portable Power Generation Equipment

**NOTES**

- Items listed below are located at the 293 Warehouse.
- REFER to page 8 of this Attachment for set-up of this equipment as needed.

Make	Model	Description	CAT ID	Quantity
Honda Generator	Model E1000I	1000 watt gas powered portable generator	1700050	4
Honda Generator	Model EB6500SX	6500 watt gas powered portable generator	1700051	3
		EM-220 (Violent Weather) Power Cord 100 ft of 12-3 conductor	1700052	8
		EM-220 (Violent Weather) Power Cord Electrical 'Y' made from 12-3 conductor	1700053	7
		EM-220 (Violent Weather) Power Cord *For use with Honda Generator EB6500SX* 100 ft of 10-4 conductor with L14-30 male twist-lock connector and 240(L6-30 connection)/120 vac receptacle box	1700054	3
		EM-220 (Violent Weather) Power Cord *For use with Honda Generator EB6500SX* 100 ft of 10-3 conductor with L5-20 male twist lock connector and dual duplex receptacle box	1700055	3
		EM-220 (Violent Weather) Power Cord *For use with Honda Generator EB6500SX* 100 ft of 10-3 conductor with L5-30 male twist lock connector and dual duplex receptacle box	1700056	3
		EM-220 (Violent Weather) Power Cord *For use with Honda Generator EB6500SX* 'Pigtail' consisting of 20 ft of 10-3 conductor with L6-30 male twist lock connector	1700057	3
		2½ gallon gas can with attached pour funnel	1700058	4

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**Violent Weather Supplies**

		28 gallon roll-around gal tank with hand pump	<b>1700059</b>	1
		Portable Lighting – 150-watt halogen	<b>1700060</b>	14
		Portable Lighting – 500-watt halogen	<b>1700061</b>	4
Sure Charge		Auto shutoff battery charger (for Honda Generator EB6500SX) With 2 Jumper cables to charge 3 batteries at once	<b>1700062</b>	1
		Batteries (for Honda Generator EB6500SX) NOTE: These batteries are inside the generators		3
		Power Cord 50' of 14-3 conductor	<b>1700064</b>	8

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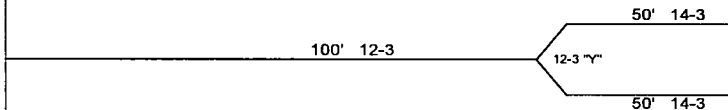
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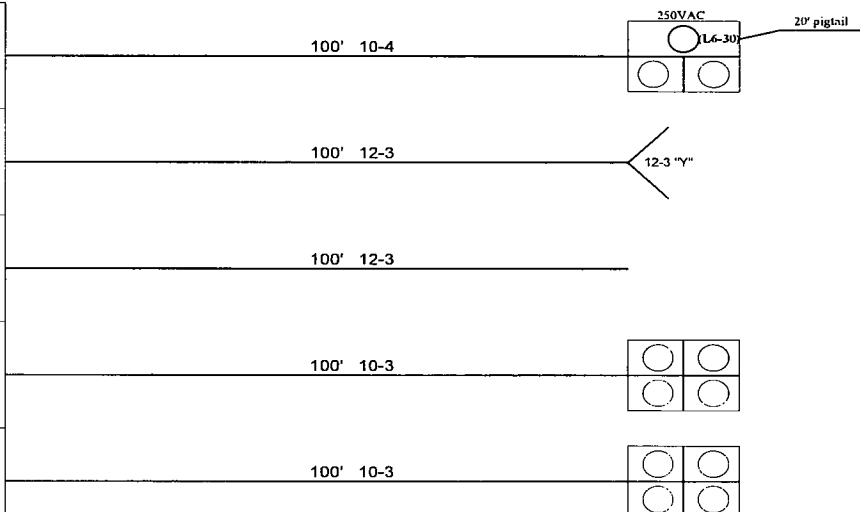
**Violent Weather Supplies**

Honda Generator <b>E1000I</b>  1.0 KW (4 Each)  And  'Cord Set' (4 Each)  Oil <b>5W-30 Mobil 1</b>	120 VAC
	120 VAC



Gas Containers:  
(4) 2 1/2 Gal with funnels  
(1) 28 Gal roll-around with  
handpump

Honda Generator <b>EB6500SX</b>  6.5 KW (3 Each)  And  'Cord Set' (3 Each)  Oil <b>5W-30 Mobil 1</b>	250VAC/ 125 VAC (L14-30)
	120 VAC
	120 VAC
	120 VAC (L5-20)
	120 VAC (L5-30)



Portable Lighting:  
(14) 150W Halogen  
(4) 500W Halogen

Generator Batteries: (3)

Battery Charger:  
(1) Electronic (auto cutoff)  
Charges all 3 batteries  
Blinking

**Green**=charged  
(2) Jumper cables

Twist-lock connectors are as indicated

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## **Violent Weather Committee Checklists for Storm Preparations Actions**

### **1.0 PLANT GENERAL MANAGER (PGM)**

#### **1.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. DETERMINE whether partial or full implementation of respective checklists is required, depending on storm classification for area. .... ☐
2. ENSURE Violent Weather Committee members **AND** the Shift Manager are notified when EM-220C has officially been entered **[R12]**. .... ☐
3. REFER to EM-220, Attachment 2, Plant Elevation Data for flood contingencies, as needed ..... ☐
4. NOTIFY Security to determine safe place for vehicles during storm..... ☐

#### **NOTE:**

Plant evacuation decisions should consider the number of personnel that are onsite at the time of evacuation. The decision to evacuate may be made early and the evacuation of plant personnel may be sequential, e.g., Major Projects personnel in temporary buildings such as trailers first, then plant personnel, etc.

5. COORDINATE release of non-essential personnel in a phased, controlled manner at completion of Hurricane preparations or as personal circumstances dictate in advance of severe weather conditions to allow them to arrive home safely and avoid undue congestion. .... ☐
6. ENSURE management continues to discuss hurricane preparations when hurricane advisory upgrades are issued by National Hurricane Center that affects Citrus County **[R17]** ..... ☐
7. NOTIFY CR 1, 2, 4 and 5 Management of the potential need to tie down items that could cause a loss of offsite power event induced from the CR3 switchyard..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 1.2 Approaching Hurricane (Category 1 and 2)

1. ENSURE actions of Section 1.1 are complete or are in-progress..... ☐
2. REFER TO EM-202, Enclosure 1, for implementation..... ☐

#### NOTES

- The Off-Site Support Directory on EP Web Page contains additional information regarding Transportation Contacts.
- Designated Parking:
  - North end of Crystal River Mall
  - Publix Shopping center- Highway 44
  - Winn Dixie - Highway 44
  - Winn Dixie - Highway 491, Beverly Hills

3. IF plant access road has become impassable by passenger vehicles, THEN ENSURE transportation and parking arrangements are made for Operators and Support Staff **[R12]**..... N/A ☐ ☐
4. NOTIFY CR 1, 2, 4 and 5 Management to tie down items that could affect the CR3 offsite power sources and cause a loss of offsite power event..... ☐
5. ENSURE pre-staged supplies are relocated to within flood-protected area..... ☐
6. REQUEST unusual or abnormal conditions identified during preparations be reported to the Shift Manager or designee..... ☐
7. REFER to EM-102, Enclosure 4, to secure TSC/OSC AND ESTABLISH alternate command center for remainder of hurricane..... ☐



**Violent Weather Committee Checklists for Storm Preparations Actions****1.2 Approaching Hurricane (Category 1 and 2) (continued)****NOTE**

Referring to Attachment 2 Section 4.0 for **Group 2** Staffing Levels may aid in performance of the next step.

8. CONSIDER lowering Committee staffing levels to provide TSC minimal staffing requirements and moving to Control Complex for duration of hurricane, as conditions warrant. .... ☐
9. ENSURE Supervisors brief storm response personnel on storm, safety precautions, expected duties, potential problems, contingencies, and communications systems, as identified in Attachment 2, Employee Considerations Before, During, And After Storm..... ☐

**NOTE**

Current supply of Meals-Ready-To-Eat (MRE) feed 70-75 personnel for seven days.

10. ENSURE food available for those remaining on site, excluding Security personnel **AND** Attachment 4 Section 15.0, Eof Administrative Assistant (food/housing) is complete, or in-progress. .... ☐
11. DETERMINE possible safe sleeping locations within Control Complex or other safe locations, depending on storm significance ..... ☐
12. ENSURE Maintenance implements personnel sleeping plans, including male and female accommodations ..... ☐
13. CONSIDER the establishment of an open ENS line during the onset of hurricane force winds..... ☐
14. ENSURE Security takes action to move vehicles for protection from flood or wind damage..... ☐
15. ENSURE departments notify Security of the following:
  - Personnel accountability actions upon completion of preparation for storm..... ☐
  - Current staffing levels are adequate for storm response..... ☐
16. NOTIFY Security to perform accountability to verify number of personnel on site..... ☐

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**1.2 Approaching Hurricane (Category 1 and 2) (continued)**

17. CONSIDER assigning someone to video the plant area prior to storm and again immediately after storm for event records and insurance purposes ..... ☐
18. CONSIDER removal of Satellite dish from TSC roof..... ☐
19. ENSURE "general" information on Employee Emergency Line for non-essential personnel is updated per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
20. CONSIDER the establishment of a pay protocol (exempt personnel overtime, charge numbers, etc) prior to the development of additional staffing plans ..... ☐

**1.3 Approaching Hurricane (Category 3, 4, and 5)**

1. ENSURE actions of Sections 1.1 and 1.2 are complete, or are in-progress..... ☐
2. CONSULT with corporate officials on arranging for helicopters to bring support personnel and equipment to site immediately after passage of storm..... ☐

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## **Violent Weather Committee Checklists for Storm Preparations Actions**

### **1.4 Recovery from Violent Weather**

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. INITIATE recovery actions for the Violent Weather Committee members. .... ☐
  - b. NOTIFY Operations to perform Attachment 4 Section 2.4, Recovery from Violent Weather of this procedure..... ☐
  - c. ENSURE access to Energy Complex has been restored.
  - d. CONSIDER berm location for suitable helicopter landing sites as needed. .... ☐
  - e. CONSIDER site access from major roads in the vicinity. .... ☐
  - f. NOTIFY Fleet Administration to ensure equipment is on hand to make emergency vehicle repairs..... ☐
2. NOTIFY appropriate Site and Fleet organizations to begin removal of unsafe industrial conditions such as:
  - Exposed and energized power lines ..... ☐
  - Unstable structures ..... ☐
  - Broken glass, and grass..... ☐
3. NOTIFY Fossil Units to determine overall damage ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **1.4 Recovery from Violent Weather (continued)**

4. REQUEST support from corporate resources for immediate needs:
  - Water ..... ☐
  - Fuel oil..... ☐
  - Portable electric generators ..... ☐
  - Chain saws..... ☐
  - Hand tools..... ☐
  - Food..... ☐
  - Clothing..... ☐
  - Major equipment for debris removal..... ☐
5. DISPATCH a representative to Emergency Operations Facility (EOF) or appropriate location for employee assistance..... ☐
6. CONSIDER dispatching an Emergency Preparedness representative to the Citrus County EOC to provide recovery interface support and State Watch Office updates. .... ☐
7. ENSURE overall restoration of plant activities is being performed based on individual checklists..... ☐
8. EVALUATE the need to involve corporate resources for long-term recovery actions. These may include:
  - Grid/transmission conditions that may affect Spent Fuel Cooling equipment reliability ..... ☐
  - Site communications capabilities ..... ☐
  - Site security capabilities..... ☐
  - Support for impacted and/or displaced employees ..... ☐
9. IF Satellite dish was removed from TSC roof,  
THEN NOTIFY Maintenance to re-install dish on the TSC roof ..... N/A ☐ ☐

## Violent Weather Committee Checklists for Storm Preparations Actions

### 2.0 OPERATIONS

#### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

#### NOTE

Steps 1 through 5 are to be performed by each on-coming Shift Manager. Acknowledgement of this requirement is satisfied by placing initial/date in box provided after step 5. Additional pages may be made to document additional time frame. N/A any non-applicable shift.

1. REVIEW Section 4.0, Precautions, Limitations, and Notes..... ☐
2. REFER to SP-300, Operating Daily Surveillance Log, **AND** USE the Flood Control Log for recording water level. .... ☐
3. CONSULT EM-202, Enclosure 1, for implementation..... ☐
4. REVIEW remainder of checklist for applicability of action items **AND** CONSIDER changes that have occurred based on environment and plant conditions, including previously signed off items..... ☐
5. PLACE plant in CONDITION YELLOW..... ☐
  - a. ENSURE informational flyers are placed at the NSOC providing basic details concerning plant status/system alignment (if conditions permit) ..... ☐
  - b. ENSURE Security has changed condition status at the NSOC (traffic signal at turnstiles) ..... ☐
  - c. REFER to AI-504, Guidelines for Cold Shutdown And Refueling, as needed ..... ☐

SHIFT	INITIAL/DATE	SHIFT	INITIAL/DATE	SHIFT	INITIAL/DATE
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_____	____/____	_____	____/____	_____	____/____
_____	____/____	_____	____/____	_____	____/____
_____	____/____	_____	____/____	_____	____/____

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

#### NOTE

The following two steps should be coordinated with SM or EC for implementation.

6. ENSURE release of non-essential personnel in a phased, controlled manner at completion of Hurricane preparations or as personal circumstances dictate in advance of severe weather conditions to allow them to arrive home safely and avoid undue congestion..... ☐
7. ENSURE arrangements are made for Operators and support staff to be transported to plant site if plant access road becomes impassable.
  - Personnel should be given time and location for pick up (≈ 6-10 hours before land fall)..... ☐
8. ENSURE Operators remaining on site during the storm report with adequate supplies of any medications and/or medical devices required by their licenses to last the expected duration of the storm ..... ☐
9. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** – Storm Preparations Crew ..... ☐
  - **GROUP 2** – Storm Crew ..... ☐
  - **GROUP 3** – Storm Recovery Crew ..... ☐
10. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to review for returning personnel
11. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
12. ENSURE plans include rotation roll out and call ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs). ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

13. ENSURE the following procedures are reviewed by each on-coming crew:
- AP-770, Emergency Diesel Generator Actuation ..... ☐
  - AP-730, Grid Instability ..... ☐

#### NOTE

Whenever tide level exceeds 95 feet, the RWP gland leakoff diverter valves are aligned to "DRAIN" to minimize potential flooding in the seawater room.

14. **IF** tide level exceeds 95 feet **OR** is predicted to exceed 95 feet, **THEN** ALIGN RWP gland leak off diverter valves, RWV-189 thru 193 to "DRAIN" ..... ☐
15. Upon declaration of a Potential/Approaching Tropical Storm or Hurricane, SUSPEND spent fuel handling operations with FHCR-5 **AND** PERFORM the following in accordance with OP-421C [R5]:
- a. LOWER the load to a safe location (if move in progress)..... ☐
  - b. MOVE FHCR-5 to the South end of the Auxiliary Building ..... ☐
  - c. SECURE the crane ..... ☐
16. REVIEW equipment out-of-service and on-going maintenance. .... ☐
17. REVIEW Attachment 1, List of Equipment To Be Verified Operable/Functional [R8] [R13] [R18] for SBO equipment **AND** ASSIGN a high priority to restoring equipment to an operable status **[R6] [R8] [R13]** ..... ☐
18. ENSURE removable roof for ASDT-11 vault is installed **AND** bolted down ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

19. NOTIFY CR-1, 2, 4, 5, and coal yards **AND ENSURE** inspection of their outside areas and storage of loose material which could threaten reliability of CR-3 required off-site power sources. **[R7]**
- CR-1/2 and South coal yard:  
(extension 2120 or 563-4454) ..... ☐
  - CR-4/5 and North coal yard:  
(extension 8-245-5283 or 352-501-5283)..... ☐
20. ANNOUNCE over public address system severe weather condition and to maintain limited access to outside areas ..... ☐
21. ARRANGE to fill tanks to ensure diesel fuel oil storage tanks are filled as indicated below ..... ☐

Tank	Recommended	Actual	Order (Y/N)
"A" EDG Diesel Fuel Oil Storage Tank	>23,500 gal.		
"B" EDG Diesel Fuel Oil Storage Tank	>23,500 gal.		
Fire Pump Diesel Fuel Tank ( FSP-2A)	220 gal. ( ≥ 81%)		
Fire Pump Diesel Fuel Tank ( FSP-2B)	220 gal. ( ≥ 60%)		
Carbon Dioxide Tank	4.5 tons (>9)		
TSC Diesel Tank	1,300 gal.		
SCAT Tank	400 gal.		
Diesel Air Compressor Tank Level	Full		
EGDG-1C Fuel Oil Tank (DFT-5)	≥ 6832 gal. (> 3' 0")		
PPIP-1 Fuel Tank	≥ 7/8 Full		



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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

22. ENSURE ERC coverage is provided ..... ☐
23. ENSURE Work Management Supervisor is notified of checklist progress..... ☐
24. PREPARE **AND** RELEASE waste tanks as directed by Chemistry:
  - Liquid Waste Tanks..... ☐
25. INSTALL 2 locking pins to secure intake crane (CWCR-1) at hard stops ..... ☐
26. CLOSE non-water-tight windows and vents in Turbine and Intermediate Buildings ..... ☐
27. ENSURE intake screens are continuously operated in slow speed throughout storm..... ☐
28. CONSIDER leaving message for off duty operators on Operation's extension of Employee Emergency Line per EM-220, Attachment 6, CR3 Emergency Information Line..... ☐
29. BRIEF operations personnel on storm, safety precautions, expected duties, potential problems, contingencies, and communication systems ..... ☐
30. **IF** EGDGs are running **AND** high winds exist with **NO** rain, **THEN** INSPECT EGDG ventilation pre-filters AHFL-5A/5B for coal dust buildup twice per shift **AND** NOTIFY Maintenance as required for change out. .... N/A ☐ ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

31. DETERMINE, if necessary, temporary suspension of operator rounds on outside equipment during storm..... ☐
32. REVIEW **AND** PERFORM applicable items from this checklist upon notification from National Weather Service that area is **NO** longer subject to Tropical Storm or Hurricane Conditions..... ☐

#### CAUTION

PPIP-1 shall **NOT** be parked in Berm areas where storm-related personnel hazards or equipment hazards may exist, or may be introduced as conditions worsen (examples: under high voltage lines, near unsecured material that may become airborne and damage the PPIP-1).

33. CONSIDER moving PPIP-1 and the associated equipment trailer from PPIP-1 storage building located at the intake to North/West area of the BERM or just inside TB Rollup door based on projected storm surge prior to installation of flood doors ..... ☐
34. PERFORM a SRO walkdown of the switchyard and outlying areas at CR 1, 2, 4, and 5 to ensure the tie down of items that could affect the CR3 offsite power sources and cause a LOOP ..... ☐

#### NOTE

Flange is located under deck plate labeled "EM-225F Emergency Equipment Connection" and is along the south wall of the RB MSB.

35. ENSURE pipe penetration in the RB MSB of the EFT-2 building has blank flange installed. .... ☐

**Violent Weather Committee Checklists for Storm Preparations Actions****2.2 Approaching Hurricane (Category 1 and 2)****NOTE:**

Each on-coming Shift Manager should read the items below, then initial and date as indicated. Additional pages may be used to document extended time frames. N/A any non-applicable shift.

1. ENSURE actions of Section 2.1 are complete, or are in-progress..... ☐
2. REVIEW Section 4.0, Precautions, Limitations, and Notes..... ☐
3. REFER to the SP-300 Flood Control Log for recording water level. .... ☐
4. CONSULT EM-202, Enclosure 1, for implementation..... ☐
5. RECORD meteorological forecast information on the  
Attachment 4 Section 2.5, APPROACHING HURRICANE  
CHRONOLOGICAL DATA SHEET [R3] (FSAR 2.4.2.4.1) **OR** attach  
National Weather Service data sheet. (FSAR 2.4.2.4.1)..... ☐
6. REVIEW EOP-12 and AP-406 with operating crew **AND REPEAT**  
review at beginning of each shift while Approaching Hurricane  
conditions remain in effect. **[R17]** ..... ☐
7. REVIEW AAG-005  
and <http://nggweb/CR3PASSPORTDM/MGEN/MIS/AAG-08.pdf>  
AAG-008 ..... ☐
8. REVIEW remainder of checklist for applicability of action item **AND**  
CONSIDER changes that have occurred based on environment and  
plant conditions, including previously checked off items. .... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 2.2 Approaching Hurricane (Category 1 and 2) (continued)

9. PLACE plant in CONDITION YELLOW..... ☐

a. ENSURE informational flyers are placed at the NSOC providing basic details concerning plant status/system alignment (if conditions permit)..... ☐

b. ENSURE Security has changed condition status at the NSOC (traffic signal at turnstiles) ..... ☐

c. REFER to AI-504, Guidelines for Cold Shutdown And Refueling, as needed. .... ☐

SHIFT	INITIAL/DATE	SHIFT	INITIAL/DATE	SHIFT	INITIAL/DATE
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_____	____/____	_____	____/____	_____	____/____
_____	____/____	_____	____/____	_____	____/____
_____	____/____	_____	____/____	_____	____/____

10. REPORT any unusual or abnormal condition to Work Management Supervisor..... ☐

11. CONSIDER leaving message for off duty operators on Operations extension of Employee Emergency Line per EM-220, Attachment 6, CR3 Emergency Information Line..... ☐

12. PERFORM PT-911 ..... N/A ☐ ☐

13. MAINTAIN two operational shifts on-site throughout storm, per Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐

14. CLOSE SDV-59 (floor drain from fire pump house to Turbine Building) to prevent flooding ..... ☐

15. ENSURE the following valves CLOSED **AND** CAPPED: [R19]

- TRF-1 "Flood Wall Penetration" (TB 119', NE corner on north wall) ..... ☐

- TRF-2 "Flood Wall Penetration" SE of Aux Transformer on TB wall) ..... ☐

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**2.2 Approaching Hurricane (Category 1 and 2) (continued)**

16. PREPARE CW outlet flume SC drain connections **AND ENSURE** CWV-252 and CWV-253 are **CLOSED AND CAPPED. [R19]**..... ☐
17. DE-ENERGIZE SDP-8A and SDP-8B, Chemical Storage Area sump pumps, by opening feeder breakers:
  - SDP-8A – Water Treatment MCC 3A Breaker #2A..... ☐
  - SDP-8B – Water Treatment MCC 3B Breaker #2A..... ☐
18. REVIEW status of off-site power supply determined by discussions with Energy Control Center, CR-1&2 Control Room, and CR-4&5 Control Room..... ☐
19. **IF** Ultimate Heat Sink level falls below 90 feet, **THEN RECORD** level hourly per SP-300 ..... N/A ☐ ☐
20. **IF** Ultimate Heat Sink level falls below 87 feet, **THEN REFER** to OP-408 for throttling RWP-2A/2B flow during hurricane blowout..... N/A ☐ ☐
21. OBTAIN radios and satellite phones from TSC and take to Control Room ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.2 Approaching Hurricane (Category 1 and 2) (continued)

22. CONSIDER additional ERC availability..... ☐
23. COORDINATE with Maintenance to perform the following **AND**  
MAINTAIN a list of equipment secured for later restoration:
- a. REMOVE **AND** STORE contents from fire hydrant houses to  
Turbine Building ..... ☐
  - b. CLOSE **AND** SECURE fire hydrant house doors..... ☐
  - c. VERIFY fire hose reels are accessible for use ..... ☐
  - d. CLOSE local alarm panel doors ..... ☐
  - e. SECURE compensatory hoses (if applicable) ..... ☐
  - f. SECURE foam carts, fire carts, and wheeled fire extinguishers..... ☐
24. PROVIDE periodic PA announcements updating personnel of local  
evacuation information ..... ☐

#### NOTE:

- Fuel handling operations should be suspended at least two hours before arrival of hurricane force winds on site.
- Installation of New Fuel Storage Vault missile shields should be considered, if not already installed.

25. **IF** not already suspended, **THEN** immediately SUSPEND spent fuel  
handling operations with FHCR-5 **AND** PERFORM the following in  
accordance with OP-421C [R5]: ..... N/A ☐ ☐
- a. LOWER the load to a safe location (if move in progress)..... ☐
  - b. MOVE crane FHCR-5 to the South end of the Aux. Building..... ☐
  - c. SECURE the crane ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **2.2 Approaching Hurricane (Category 1 and 2) (continued)**

26. NOTIFY Units 1 and 2 to ensure all barges leave the intake area and are prevented from entering until all clear is given..... ☐
27. REVIEW **AND** PERFORM applicable items of this checklist upon notification from National Weather Service that area is **NO** longer subject to Hurricane Conditions ..... ☐
28. PERFORM a SRO walkdown of the switchyard and outlying areas at CR 1, 2, 4, and 5 to ensure the tie down of items that could affect the CR3 offsite power sources and cause a LOOP ..... ☐

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**2.3 Approaching Hurricane (Category 3, 4, and 5)**

**NOTE:**

The following step is for protection of CR-3's above ground fire service yard loop. The protection is needed if there is a possibility of CR-1&2's stacks falling and breaking this line. Unit 1 stack has been designed to withstand wind speeds of 165 mph, Unit 2 designed for 146 mph winds.

1. ENSURE actions of Attachment 4 Section 2.1, Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) and Attachment 4 Section 2.2, Approaching Hurricane (Category 1 and 2) are complete, or are in-progress..... ☐
2. IF a Category 4 or 5 Hurricane is predicted for this area,  
THEN the following actions should be considered:..... N/A ☐ ☐
  - OPEN FSV-640 (Cross tie, AB Isolation) (119' AB N Corridor overhead)..... ☐
  - CLOSE FSV-22 (Yard Loop Block, Post Indicator Isolation Valve) (S Pump House)..... ☐
  - CLOSE FSV-107 ( AB Isolation, Post Indicator Isolation Valve) (South Berm North of EGDC-1C) ..... ☐
  - CLOSE FSV-105 (Yard Loop Block, Post Indicator Isolation Valve) (SE EDG Rm. N RCA) ..... ☐
3. ENSURE oil tank cover for LOT-1 is secure ..... ☐
4. CHECK emergency supplies; including flashlights, batteries, rope, nails, portable bedding, and ventilation equipment ..... ☐
5. CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during storm inside of water tight doors, prior to closing..... ☐
6. CLOSE FSV-1148 (EFP-3 fire service system drain valve) ..... ☐
7. SECURE EFP-3 watertight doors E-201, E-202, and E-203..... ☐



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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **2.3 Approaching Hurricane (Category 3, 4, and 5) (continued)**

- REVIEW **AND** PERFORM applicable items of this checklist upon notification from National Weather Service that area is **NO** longer subject to Hurricane Conditions ..... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 2.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - PERFORM PA announcements updating personnel of weather status ..... ☐
  - REVIEW EM-202 for existing applicable Emergency Action Levels..... ☐
  - PROVIDE message for off duty operators using Employee Emergency Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
  - ESTABLISH a prioritized recovery plan:
    - (1) INSPECT the intake canal and bank for erosion or blockages.
      - Request Engineering review for bank erosion. .... ☐
    - (2) ENSURE Emergency Diesel Generators available..... ☐
2. IF restoration is needed, **THEN** PERFORM the following: ..... N/A ☐ ☐
  - a. RESTORE Control Complex HVAC to its normal mode of operation ..... ☐
  - b. RETURN fire brigade equipment to its proper location ..... ☐
  - c. IF intake screens are in slow speed, **THEN** SECURE intake screens..... N/A ☐ ☐
  - d. IF there is sufficient room in SDT-1 **OR** Turbine Building sump, **THEN** OPEN SDV-59, floor drain from fire pump house to Turbine Building ..... N/A ☐ ☐
  - e. REMOVE 2 locking pins on intake area gantry crane ..... ☐

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#### 2.4 Recovery from Violent Weather (continued)

3. IF de-energized, **THEN** ENERGIZE SDP-8A and SDP-8B, Chemical Storage Area sump pumps, by closing feeder breakers: ..... N/A ☐ ☐
  - SDP-8A – Water Treatment MCC 3A Breaker #2A ..... ☐
  - SDP-8B – Water Treatment MCC 3B Breaker #2A ..... ☐
4. IF CR-1&2's stacks have **NOT** fallen, **AND** fire loop was isolated for a Category 4/5 Hurricane, **THEN** PERFORM the following: ..... N/A ☐ ☐

#### CONCURRENT VERIFICATION POINT

- CLOSE **AND** SEAL FSV-640 (Cross tie AB Isolation) (119' AB N Corridor Overhead) ..... 1st  
CV
  - OPEN **AND** SEAL FSV-22 (Yard Loop Block; Post Indicator Isolation Valve) (S Pump House) ..... 1st  
CV
  - OPEN **AND** SEAL FSV-107 (AB Isolation (Post Indicator Isolation Valve) (South Berm North of EGDC-1C) ..... 1st  
CV
  - OPEN **AND** SEAL FSV-105 (Yard Loop Block; Post Indicator Isolation Valve) (SE EDG Rm. N RCA) ..... 1st  
CV
5. RELEASE oil tank cover LOT-1 ..... ☐
  6. OPEN FSV-1148, EFP-3 Fire Service system drain valve ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.4 Recovery from Violent Weather (continued)

7. MOVE PPIP-1 and the associated equipment trailer from North/West area BERM or inside the TB Rollup door to the PPIP-1 storage building located at the intake ..... ☐
8. ENSURE RWP gland leak off diverter valves to are aligned to "FLUME":
  - RWV-189..... ☐
  - RWV-190..... ☐
  - RWV-191..... ☐
  - RWV-192..... ☐
  - RWV-193..... ☐
9. DETERMINE if plant condition "YELLOW" can be restored to "GREEN" ..... ☐
10. UPDATE Emergency Information Line when event is over..... ☐
11. TRANSMIT completed EM-220C to Records per RDC-NGGC-0001..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 2.5 APPROACHING HURRICANE CHRONOLOGICAL DATA SHEET [R3] (FSAR 2.4.2.4.1)

##### NOTES:

- Initiate this log upon receipt of notification of an Approaching Hurricane and enter meteorological forecast information from the National Hurricane Center in Miami, Florida every two hours while hurricane conditions exist for Citrus County. The National Hurricane Center can be reached at 305-229-4470 (recording).
- If it is **NOT** possible to reach the Hurricane Center, the National Weather Service may be notified in Ruskin, Florida at 813-645-2323 or 813-645-2506.
- An NWS printout may be substituted for the above as long as it contains the same information.

Date: \_\_\_\_\_

#### APPROACHING HURRICANE FORECAST INFORMATION

TIME	LOCATION		DIRECTION OF TRAVEL	FORWARD SPEED	HIGHEST WIND SPEED	INITIALS
	Latitude	Longitude				

COMMENTS: \_\_\_\_\_

CRS Approval: ..... \_\_\_\_\_

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **3.0 MAINTENANCE – FACILITY SERVICES**

##### **3.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew ..... ☐
  - **GROUP 3** - Storm Recovery Crew..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
4. ENSURE roll out plans include rotation roll out and call ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. INSPECT the following areas for loose materials that could become missiles when exposed to high winds or water **AND ENSURE** freestanding objects are either secured or moved into buildings **[R7]**:
  - CR3 Protected Area ..... ☐
  - Maintenance Fab Shop ..... ☐
  - Paint shop/Welding area ..... ☐
  - RVCH Storage Building..... ☐
  - Once Through Steam Generator (OTSG) Storage Facility..... ☐
  - Any construction area. .... ☐
6. ENSURE Work Management Supervisor is notified of checklist progress..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **3.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

7. DETERMINE if portable toilets are needed (a Category 3, 4, or 5 Hurricane would warrant this action) **AND** NOTIFY Purchasing to procure as needed ..... ☐
8. REFER to Attachment 5, Nuclear Facility Services Violent Weather Guidelines for details on preparations..... ☐

#### **NOTE**

Attachment 3, Violent Weather Supplies may be used to assist in performing the next step.

9. PERFORM the following:
  - a. CHECK emergency supplies, including flashlights, batteries, lumber, rope, nails, portable bedding, and ventilation equipment ..... ☐
  - b. ARRANGE for augmenting supplies as necessary. .... ☐
  - c. ENSURE emergency supplies are available and set up inside Protected Area ..... ☐
10. ESTABLISH a pre staging area. .... ☐
11. ENSURE plant vehicles needed for emergency use have a full tank of fuel and are in good repair ..... ☐
12. SECURE gas cylinders properly ..... ☐
13. CONSIDER sandbagging the CCB, SAB, and NAB..... ☐

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**3.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE Attachment 4 Section 3.1, Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) ..... ☐
2. FUEL company vehicles ..... ☐
3. REVIEW scheduled work that could breach watertight openings **AND** ENSURE work is **NOT** performed ..... ☐

**NOTE:**

Attachment 3, Violent Weather Supplies may be referenced for CAT ID numbers.

4. INSTALL flood barriers around TSC/OSC. .... ☐
5. PLACE sandbags around non-vital battery and associated chargers, and Main Control Complex on 95' elevation, as directed by Shift Manager..... ☐
6. PLACE sandbags between Auxiliary and Turbine Buildings at 95' elevation and other areas protecting Control Complex, as directed by Shift Manager ..... ☐
7. STORE extra gasoline and oil for emergency use before storm strikes..... ☐
8. ENSURE sandbags are available and pre-staged (FSAR 2.4.2.4) ..... ☐
9. SET-UP sandbags at Security Operations Center (NSOC). .... ☐
10. CONSIDER moving emergency repair tools/equipment and supplies that might be needed during storm inside of water tight doors, prior to closing..... ☐

**NOTE:**

Attachment 3, Violent Weather Supplies may be referenced for CAT ID numbers.

11. PROVIDE Meals Ready-To-Eat (MREs) and eating utensils, as needed. .... ☐
12. PROVIDE sufficient air mattresses and blankets **AND** SET-UP a system for controlled issue and return. .... ☐



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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **3.2 Approaching Hurricane (Category 1 and 2) (continued)**

13. MAINTAIN adequate medical supplies on hand, such as aspirin, cold medicine, stomach tablets, and other household medications ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 3.3 Recovery from Violent Weather

1. **IF** requested by the SM (or EC) **AND** weather permitting, **THEN** dewater the swamp area to prevent overflow by performing the following: ..... N/A ☐ ☐
  - a. NOTIFY Chemistry to sample water in the swamp area. .... ☐
  - b. INSTALL a temporary dewatering pump and hose kit to direct water to a suitable storm drain. .... ☐
    - Dewatering Pump (Cat ID 9220238836)
    - Hose kit (CAT ID 9220243675)
  - c. **WHEN** Chemistry has completed sampling **AND** given approval for discharge to a storm drain, **THEN COMMENCE** dewatering of the swamp area..... ☐
2. **WHEN** dewatering is complete **OR** weather conditions degrade, **THEN STOP** pumping activities **AND RETURN** equipment to stores..... ☐
3. **PERFORM** the following as needed to restore to pre-storm conditions:
  - a. REQUEST return of distributed air mattresses and blankets ..... ☐
  - b. REMOVE flood barriers placed around TSC/OSC ..... ☐
  - c. RETURN portable toilets ordered for hurricane preparations..... ☐
  - d. REMOVE sandbags established by sections 3.1 or 3.2 of this checklist ..... ☐
  - e. ARRANGE to have pre-staged emergency supplies identified in Attachment 4 Section 3.1, Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) returned to pre-storm status ..... ☐
  - f. **WHEN** event is over, **THEN UPDATE** Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 4.0 MAINTENANCE – MECHANICS

##### 4.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew ..... ☐
  - **GROUP 3** - Storm Recovery Crew ..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
4. ENSURE roll out plans include rotation roll out and call ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. OBTAIN drawings for water tight doors as identified in Attachment 4 Section 4.2 Step 8.
6. INSPECT Intake area for loose materials that could become missiles when exposed to high winds or water **AND** ENSURE freestanding objects are either secured or moved into buildings ..... ☐
7. ENSURE Work Management Supervisor is notified of checklist progress..... ☐

#### **NOTE:**

Attachment 3, Violent Weather Supplies contains a list of CAT ID numbers.

8. SET-UP a supply of roughing pre-filter pads into plant to provide two changes of EDG ventilation filters. .... ☐
9. SECURE watercraft at Intake ..... ☐
10. INSPECT for loose debris **AND** CLEAR drains on building roofs ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **4.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

11. ENSURE TSC **AND** EOF diesel status satisfactory ..... ☐
12. ENSURE preparations are made for response to influx of debris/grass in the intake canal post storm per AI-574, Sea Grass or Debris Influx Plan..... ☐

#### **EXAMPLE**

Preparations include items such as required tools, boats, trucks, harvesters etc. are accounted for and ready for use.

**Violent Weather Committee Checklists for Storm Preparations Actions**

**4.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE of section 4.1 of this checklist..... ☐
2. EVALUATE system configurations which may permit water intrusion into plant buildings due to high tides, such as:
  - CW system..... ☐
  - RW system manways, or pipe openings. .... ☐
3. CLOSE equipment, piping, or manways open for maintenance that could result in plant flooding at high tides. .... ☐
4. ATTACH bracing to close and barricade large roll-up doors as applicable..... ☐
5. INSTALL cover plates and strong backs where piping is open and susceptible to flooding ..... ☐
6. Consider moving any emergency repair tools/equipment and supplies that might be needed during storm inside of water tight doors, prior to closing..... ☐

**NOTE**

Watertight door between Machine Shop and plant should be closed last.

7. IF water level of Gulf exceeds 98' at intake, THEN CLOSE AND SECURE watertight doors and flood gates identified on drawings within two hours. **[R3]** (FSAR 2.4.2.4.1) ..... N/A ☐ ☐

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#### 4.2 Approaching Hurricane (Category 1 and 2) (continued)

8. FOLLOW instruction notes on each drawing for proper seal installation  
**AND MAINTAIN** doors **CLOSED** unless emergency condition requires  
door opening. .... ☐
  - CR3 Drawings:
    - CR3-S-30623 \_\_\_ Watertight Doors No. 1,3,4,6,9,10
    - CR3-S-30624 \_\_\_ Watertight Gate No. 2
    - CR3-S-30625 \_\_\_ Watertight Gate No. 5
    - CR3-S-30626 \_\_\_ Watertight Gate No. 7
    - CR3-S-30627 \_\_\_ Watertight Gate Nos. 8A/B
    - SC-434-335 \_\_\_ Watertight Door EFW 101
    - SC-434-309 \_\_\_ Watertight Door Locations

#### NOTE

Applicable drawings and mechanical PM model 220304 may be referred to, as required.

9. INFLATE seals to 40-50 PSI. .... ☐
10. ENSURE SEALED each of the three Fire Service drains penetrating  
the flood protection wall where the wall meets the outside of the pipe  
(Main Transformers, Best, and EGDGs) **[R19]** ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 4.2 Approaching Hurricane (Category 1 and 2) (continued)

11. VERIFY the following six flap valves are OPERABLE, CLOSED AND NOT obstructed by labeling, stanchions, debris, or equipment:
- SDV-67 ..... ☐
  - SDV-168 ..... ☐
  - SDV-169 ..... ☐
  - SDV-170..... ☐
  - SDV-182 (TSC) ..... ☐
  - SDV-183 (TSC) ..... ☐
12. PERFORM a visual inspection for structural discrepancies of the flood wall (where accessible) to ensure evaluation and/or compensation [R19] ..... ☐

#### NOTE

Drawing SC-434-310, Detail A and Sections 12-12/13-13 may be referred to for additional detail.

13. ENSURE access plugs in Nuclear Services Sea Water Room ceiling are secure and sealed. (FSAR 2.4.2.4, Item M) ..... ☐

#### NOTE

CR3 drawings SC-421-043 and SC-421-047 may be referred to for additional detail.

14. IF RB equipment access shield structure removable wall sections are NOT in place, THEN INSTALL as determined necessary for flood and missile protection. (FSAR 1.9.7) ..... N/A ☐ ☐

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## **Violent Weather Committee Checklists for Storm Preparations Actions**

### **4.2 Approaching Hurricane (Category 1 and 2) (continued)**

15. INSTALL 18 inch hinged extension plate hanging on outside of EGDG-1A and EGDG-1B missile shield (MRG-1) by performing the following:
  - a. UNSCREW nuts holding extension plate to MRG-1 ..... ☐
  - b. LIFT extension plate into place above MRG-1, **AND ENSURE** gasket seals ..... ☐
  - c. SECURE with attached bolts to attached studs on MRG-1 ..... ☐
16. INSTALL staged temporary flood cover for tendon gallery access hatch **[R19]** ..... ☐
17. PREPARE RW vault level access flanges. .... ☐
18. ENSURE gasket condition and torque tight **[R19]** ..... ☐



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#### 4.2 Approaching Hurricane (Category 1 and 2) (continued)

##### 19. PREPARE DFT-1A and DFT-1B as follows: [R19]

- **Vent Stacks:**
  - Visually inspect for exterior damage or rusting **AND** REPAIR as required. .... ☐
- **Manway Covers:**
  - Visually inspect for RTV seal around edge **AND RESEAL** as required. .... ☐
- **Fill Connections:**
  - Visually inspect each cap for gaskets in cap and at coupling/pipe interface. .... ☐
  - CHECK coupling to ensure it is mechanically tight to the pipe **AND ENSURE** coupling caps are properly installed and tight. .... ☐
  - INSTALL temporary locking device on coupling caps to prevent inadvertent dislodging during storm surge, using available means (bolt and nut, ring lock, tie wrap, tie wire etc.) .... ☐

#### NOTE

The minimum plywood thickness recommended by the National Hurricane Center (<http://www.nhc.noaa.gov>) for hurricane preparations is 5/8 inches thick.

- 20. INSTALL a plywood cover with caulk (or equivalent) on Tendon Gallery Access Hatch / Vent (Southwest Berm) to mitigate flooding/rainwater intrusion into the Tendon Gallery. .... ☐
- 21. INSTALL staged temporary flood cover for tendon gallery access hatch [R19] ..... ☐
- 22. ENSURE adequate de-watering pumps, hoses and drain plugs are available and pre staged (FSAR 2.4.2.4) ..... ☐
  - De-watering pumps located at the intake (Cat ID 9220091246)

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 4.2 Approaching Hurricane (Category 1 and 2) (continued)

23. MOVE de-watering unit to the plant **AND ENSURE** the following:..... ☐
- Unit is full of fuel/oil **AND** in running condition..... ☐
  - **IF** additional de-watering units are required, **THEN RENT** other de-watering units..... N/A ☐ ☐

#### 4.3 Approaching Hurricane (Category 3, 4, and 5)

1. COMPLETE sections 4.1 and 4.2 of this checklist..... ☐

#### 4.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:..... ☐
- a. REVIEW Section 4.1 **AND RESTORE** all watertight doors, cover plates, bracing, and extension plates to pre-storm condition..... ☐
  - b. **WHEN** event is over, **THEN UPDATE** Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **5.0 MAINTENANCE – ELECTRICAL**

##### **5.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1 - Storm Preparations Crew**..... ☐
  - **GROUP 2 - Storm Crew** ..... ☐
  - **GROUP 3 - Storm Recovery Crew**..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel ..... ☐
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. CHECK sump pump operation on cable tray at east end of Discharge Canal **AND** PROVIDE sump pump for 500 KV switchyard cable house ..... ☐
6. ENSURE Work Management Supervisor is notified of checklist progress..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **5.2 Approaching Hurricane (Category 1 and 2)**

1. In Addition to completion of section 5.1 of this Checklist, **PERFORM** the following:
  - a. CHECK CR3 station batteries to determine if an equalizing charge is needed to increase battery capacity **[R10]** ..... ☐
  - b. SECURE electrical service to temporary facilities. .... ☐
  - c. Securely CLOSE doors to plant transformer control panels and outdoor electrical cabinets..... ☐

#### **NOTE**

EM-220, Attachment 5, Plant Elevation Data may be referenced for equipment elevations.

- d. REVIEW Temporary Power Log **AND EVALUATE** need to de-energize electrical power supplies, based on rising water levels ..... ☐
- e. CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during storm inside of water tight doors, prior to closing..... ☐
- f. REMOVE power to outlets in swamp area ..... ☐

#### **5.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 5.1 and 5.2 of this checklist..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 5.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. IF any electrical power was disconnected during storm preparations, THEN PERFORM the following:
    - (1) REVIEW Section 5.1 AND DETERMINE which power sources require restoration..... N/A ☐ ☐
    - (2) RESTORE electrical power in accordance with requirements of SAF-NGGC-2175, Electrical Safety and Arc Flash Protection ..... N/A ☐ ☐
  - b. WHEN event is over, THEN UPDATE Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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## **Violent Weather Committee Checklists for Storm Preparations Actions**

### **6.0 MAINTENANCE – I & C**

#### **6.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1 - Storm Preparations Crew**..... ☐
  - **GROUP 2 - Storm Crew** ..... ☐
  - **GROUP 3 - Storm Recovery Crew**..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel ..... ☐
3. CONSIDER leaving information for your staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. ENSURE Work Management Supervisor is notified of checklist progress ..... ☐

#### **6.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE section 6.1 of this Checklist **AND** CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during storm inside of water tight doors, prior to closing. .... ☐

#### **6.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 6.1 and 6.2 of this checklist..... ☐

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#### 6.4 Recovery from Violent Weather

1. RESTORE equipment to pre-storm conditions, as need ..... ☐
2. **WHEN** event is over, **THEN** UPDATE Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

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#### 7.0 RADIATION PROTECTION

##### 7.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew ..... ☐
  - **GROUP 3** - Storm Recovery Crew..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐

#### NOTES

- The next step includes the following materials/locations:
  - Contaminated material stored in containers on berm or in sheet metal buildings.
  - Relocation or anchoring of radioactive or potentially radioactive items, e.g., materials, sources, etc., in Stores Facilities, sea-land containers, and radiography equipment.
- Nuclear Quality Control or Materials Technology personnel may be requested to provide help with radiography equipment.

5. INSPECT outside areas for radioactive materials **AND** STORE them inside, or protect them from severe weather as necessary. .... ☐
6. ENSURE Work Management Supervisor is notified of checklist progress..... ☐
7. CONSIDER canceling Rad material/waste shipments in progress or scheduled ..... ☐



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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **7.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

8. REMOVE loose information postings..... ☐
9. DETERMINE dosimetry needs of personnel **AND** ISSUE if needed..... ☐
10. ENSURE hazardous materials properly stored and protected ..... ☐
11. **IF** laundry trailer is on-site, **THEN** ENSURE removal of laundry trailer.... N/A ☐ ☐
12. EVALUATE the outbuildings for contaminated contents/assets **AND** ENSURE they are properly addressed. .... ☐

#### **7.2 Approaching Hurricane (Category 1 and 2)**

1. In addition to completion of section 7.1 of this checklist, PERFORM the following:
  - a. ENSURE available self contained breathing apparatus (SCBA) cylinders have been charged ..... ☐
  - b. INSTALL cargo net over roll up door at oil tank containing Radioactive Material storage. .... ☐
  - c. LOCK doors **AND** SECURE electrical supplies and louvers. .... ☐
  - d. SECURE electrical service ..... ☐
  - e. CONSIDER sandbagging entrance to oil tank..... ☐
  - f. MOVE **OR** COVER sea-lands located on the Berm which contain radioactive material as necessary ..... ☐

#### **7.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE section 7.1 and 7.2 of this checklist

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### 7.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. DISPATCH survey teams as necessary to survey site to ensure integrity of radiological postings/barriers and radioactive material containers, inventory and storage areas..... ☐
  - b. IF restoration actions are required, THEN RESTORE integrity of radiological postings/barriers and radioactive material containers, inventory and storage areas. .... N/A ☐ ☐

#### NOTE

Consideration should be given to keeping the oil tank cargo net up through the end of hurricane season.

- c. IF cargo net will be stored, THEN REMOVE AND STORE cargo net from over roll up door at oil tank containing Radioactive Material storage. .... N/A ☐ ☐
- d. WHEN event is over, THEN UPDATE Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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#### **8.0 ENVIRONMENTAL & CHEMISTRY**

##### **8.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1 - Storm Preparations Crew**..... ☐
  - **GROUP 2 - Storm Crew** ..... ☐
  - **GROUP 3 - Storm Recovery Crew** ..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel ..... ☐
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. ENSURE Work Management Supervisor is notified of checklist progress. .... ☐
6. INVENTORY laboratory reagents and supplies **AND** OBTAIN replacement stock as necessary. .... ☐

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**8.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

7. EVALUATE liquid radwaste inventories **AND RECOMMEND** releases to Operations as necessary ..... ☐
8. PERFORM walkdown of CR3 demineralized water storage tank and vendor processing skids at CR1/2 water treatment facility..... ☐
9. ENSURE Nitrogen bottles have been filled ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 8.2 Approaching Hurricane (Category 1 and 2)

1. COMPLETE section 8.1 of this checklist **AND** PERFORM the following:
  - IF continuous liquid releases are **NOT** needed due to flooding or other operational concerns **THEN TERMINATE** liquid radioactive release permits **at least 2 hours before** hurricane force winds on-site. .... N/A ☐ ☐

#### 8.3 Approaching Hurricane (Category 3, 4, and 5)

1. COMPLETE sections 8.1 and 8.2 of this checklist..... ☐

#### 8.4 Recovery from Violent Weather

1. **WHEN** event is over, **THEN** UPDATE Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 9.0 SECURITY

##### 9.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

1. Provide Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1 - Storm Preparations Crew**..... ☐
  - **GROUP 2 - Storm Crew** ..... ☐
  - **GROUP 3 - Storm Recovery Crew**..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel ..... ☐
3. CONSIDER leaving information for staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. NOTIFY Security Force that any visible sightings of a tornado should be immediately reported to Control Room and Security Shift Supervisor..... ☐
6. Fill fuel tanks of Security vehicles **AND** MOVE vehicles to high ground ..... ☐
7. REVIEW Safeguard Contingency Plan **AND** SS-206..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 9.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

8. Based on events, be prepared to PERFORM the following:
  - ESTABLISH Security command post at CAS or Control Complex..... ☐
  - MEET with EC or PGM designee to determine suspension of safeguards ..... ☐
  - CONDUCT Protected Area accountability..... ☐
9. IF safeguards are suspended, THEN PERFORM the following:
  - a. NOTIFY NRC in accordance with SEC-NGGC-2147, Reporting of Safeguards and Fitness-For-Duty Events ..... N/A ☐ ☐
  - b. STOP outside patrols ..... N/A ☐ ☐
  - c. TRANSFER outside patrol functions to inside patrols on interior of Control Complex, Intermediate, Auxiliary, and Turbine Buildings as needed. .... N/A ☐ ☐
10. TEST Local Law Enforcement Agency radio ..... ☐
11. ENSURE Work Management Supervisor is notified of checklist progress..... ☐
12. EVALUATE need to remove any extension cords connected to Security shelters ..... ☐
13. EVALUATE need to unplug and store any temporary Security lights that may be in service ..... ☐
14. VERIFY with Nuclear Facility Services that Nuclear Security Operations Center is scheduled for sandbag placement ..... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 9.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

#### NOTE

This location should be outside of affected area and will be dependent on storm prediction.

15. PERFORM the following for employee vehicle drop-off:
  - a. DETERMINE where employees can leave vehicles and time they should be there for pickup to be brought to site for storm duration ( 6 -10 hours before land fall) ..... ☐
  - b. NOTIFY Supervisors of this decision. .... ☐
16. NOTIFY personnel who may be at Security Training Facility of the event..... ☐
17. WALK DOWN access point and Sally Port areas ..... ☐
18. REVIEW Attachment 3, Violent Weather Supplies to ensure Security has adequate supplies available in Security Training Storage..... ☐

### 9.2 Approaching Hurricane (Category 1 and 2)

1. COMPLETE of section 9.2 of this checklist **AND** PERFORM the following:
  - a. LIMIT outside functions ..... ☐
  - b. CONDUCT Protected Area accountability as needed ..... ☐
  - c. ENSURE all previous actions are completed **AND INCREASE** frequency of communication tests with Local Law Enforcement Agency. .... ☐
2. Based on hurricane events, be prepared to PERFORM the following:
  - a. ESTABLISH Security command post at CAS or Control Complex..... ☐
  - b. MEET with EC or PGM designee **AND DISCUSS** suspending safeguards ..... ☐
  - c. CONDUCT **AND** UPDATE Protected Area accountability..... ☐



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#### 9.2 Approaching Hurricane (Category 1 and 2) (continued)

3. IF safeguards are suspended, THEN PERFORM the following:
  - a. NOTIFY NRC in accordance with SEC-NGGC-2147, Reporting of Safeguards and Fitness-For-Duty Events ..... N/A ☐ ☐
  - b. TERMINATE all outside Security activities ..... N/A ☐ ☐
  - c. MOVE all Security functions to interior plant areas ..... N/A ☐ ☐
  - d. NOTIFY EC or PGM designee of actions ..... N/A ☐ ☐
4. DISCUSS AND COORDINATE the following with appropriate personnel:
  - a. CONTACT fossil maintenance to have markers installed along access road to mark roadway ..... ☐
  - b. COORDINATE with NFS to have personal vehicles moved from CR3 parking lot and reserved parking area to Site Administration Building or end of access road when water levels are projected to rise past 96 feet (4 feet above normal high tides) ..... ☐
  - c. COORDINATE with NFS to stage a high ground clearance vehicle in a location that helps shuttling of personnel in and out of site. .... ☐
    - SECURE items and personnel at Security Training Facility (STF) ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 9.3 Approaching Hurricane (Category 3, 4, and 5)

1. COMPLETE sections 9.1 and 9.2 of this checklist **AND SECURE**  
PERIMETER fence spiked jacks..... ☐

#### 9.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - ESTABLISH Security safeguards and systems..... ☐
  - RESTORE any temporary Security lights that were secured  
during storm ..... ☐
  - RESTORE extension cords connected to Security shelters, as  
needed ..... ☐
2. **WHEN** safeguards are re-established, **THEN NOTIFY** NRC Region II  
Safeguards Branch of status change ..... ☐
3. **WHEN** event is over, **THEN UPDATE** Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 10.0 COMMUNICATIONS [R4]

#### 10.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

#### NOTE

In the event of a hurricane and damage to associated equipment, the following communications may be lost:

- All incoming and outgoing calls to the local phone company.
- All calls incoming on the 352-563-2943 main number.
- All 700 DID incoming lines
- All NRC lines including data
- All calls incoming direct to CR3 on the 352-795-6486 dial in.
- Telco direct lines such as security backup lines, fax lines
- Bechtel T1 data circuits

1. VERIFY operability **AND** availability of the following communication equipment:

- Emergency Management Network (EMnet) ..... ☐
- State Hot Ringdown System (SHRD)..... ☐
- "Push to talk handset" for transmitting voice communications ..... ☐
- Satellite phones located in TSC ..... ☐

2. VERIFY operability **AND** availability of the following communication equipment by contacting Control Room or other sources:

- Emergency Notification System (ENS-NRC link) ..... ☐
- Plant radios ..... ☐
- Plant phones ..... ☐

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**10.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

3. PERFORM one of the following:

- MAINTAIN contact with NRC as requested on ENS ..... N/A ☐ ☐

**OR**

- NOTIFY Accident Assessment for NRC Communicator..... N/A ☐ ☐

4. MAINTAIN a log of Off-Site communication activities ..... ☐

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## Violent Weather Committee Checklists for Storm Preparations Actions

### 10.2 Approaching Hurricane (Category 1 and 2)

1. COMPLETE section 10.1 of this checklist **AND PERFORM** the following:
  - a. REVIEW Violent Weather Volunteer List **AND IDENTIFY** Engineers staying on site during storm per Attachment 2, Employee Considerations Before, During, And After Storm for Group 2 information ..... ☐

#### NOTE

This step may require coordination with Operations as satellite phone and radios may have already been relocated from the TSC to the Main Control Room.

- b. SET-UP **AND TEST** satellite phone in TSC to ensure operation ..... ☐

#### NOTES

- Reliable information on approaching severe weather conditions is available as follows:
- The National Weather Service (NWS) issues warnings. The National Weather Service may be contacted for reliable information if other means of obtaining information is **NOT** available.
  - (813) 645-2323 (meteorologist)
  - (813) 645-2506 (recorded)
  - (813) 645-4111 (emergency only)
- When the Distribution System Storm Center declares a major storm and implements the company's storm plan, employees will be notified. The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407) 942-9581.

2. ESTABLISH storm coordinates as requested using map contained in Attachment 6, Hurricane Map. .... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **10.3 Approaching Hurricane (Category 3, 4 and 5)**

1. COMPLETE sections 10.1 and 10.2 of this checklist..... ☐

#### **10.4 Recovery from Violent Weather**

1. PERFORM the following as needed to restore to pre-storm conditions:
  - NOTIFY Telecommunications to request use of spare antennas and portable generators to be used for Load Management, low band radio, and EMnet..... ☐
  - ESTABLISH reliable external communications ..... ☐

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#### 11.0 SUPPLY CHAIN SUPERVISOR

##### 11.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew ..... ☐
  - **GROUP 3** - Storm Recovery Crew..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐
3. CONSIDER leaving information for your staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. REVIEW Attachment 3, Violent Weather Supplies **AND** ENSURE emergency supplies located in the warehouses and Lay Down Yards are available: ..... ☐

#### NOTE

At a minimum, the following areas should be inspected: CR3 warehouse area, Fitness Center, including Low Rad Storage Facility, and storage yards. **[R7]**

- INSPECT all CR3 warehouse areas **AND** MOVE inside any loose material and/or debris that could become missiles when exposed to high winds or high water. .... ☐
6. CONSIDER ordering additional drinking water for Category 3, 4, or 5 Hurricane ..... ☐

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## **Violent Weather Committee Checklists for Storm Preparations Actions**

### **11.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE of section 11.1 of this checklist **AND PERFORM** the following:

#### **NOTE**

CAT ID #'s for items listed in sub-steps (b) and (c) can be found in Attachment 3, Violent Weather Supplies.

- a. ENSURE four (4) EGDG fuel filters are re-allocated **AND** moved to 119' TB. .... ☐

#### **CAUTION**

Do **NOT** place lube oil drums on floor grating.

- b. ENSURE the following items are re-allocated **AND** moved to 119' TB
  - six (6) 55 gallon drums of diesel lube oil..... ☐
- c. ENSURE ventilation doors on oil tank are CLOSED ..... ☐

### **11.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 11.1 and 11.2 of this checklist **AND PROTECT** (e.g., wrap, elevate) spare motors and other parts and tools required for recovery or which are valuable or hard to replace



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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 11.4 Recovery from Violent Weather

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. ENSURE Attachment 3, Violent Weather Supplies supplies assigned to the Warehouse are restored and consumables reordered as needed..... ☐
  - b. RESTORE items identified in sections 11.1 and 11.2 to pre-hurricane status ..... ☐
2. **WHEN** event is over, **THEN UPDATE** Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **12.0 EMERGENCY PREPAREDNESS**

##### **12.1 Potential/Approaching Tropical Storm Or Potential/Approaching Hurricane (All Categories)**

1. NOTIFY EOF Facility Manager **AND** REQUEST EOF storm preparations ..... ☐
2. NOTIFY Citrus County Sheriff's Office that emergency workers are to display picture ID for plant access through road blocks ..... ☐
3. ENSURE Work Management Supervisor is notified of checklist progress ..... ☐
4. NOTIFY Corporate Communications the Violent Weather Committee has convened ..... ☐

##### **12.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE section 12.1 **AND** PERFORM the following:
  - a. PROVIDE information on school closing, resident evacuation and update Emergency Information Line for CR3 employees, as appropriate

#### **NOTE**

The Violent Weather Volunteer List is maintained on the EP web site.

- b. DISTRIBUTE current Violent Weather Volunteer List at Violent Weather Meeting.

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#### 12.2 Approaching Hurricane (Category 1 and 2) (continued)

- c. PROVIDE updates to:
  - Citrus County Emergency Management..... ☐
  - Levy County Emergency Management..... ☐
  - State Division of Emergency Management..... ☐
  - Department of Health, Bureau of Radiation Control ..... ☐
  - NRC Region II EP Section..... ☐
- d. IF NRC has sent a representative, **THEN SEND CR3**  
representative to State and County EOCs ..... N/A ☐ ☐
- e. IF NRC Site Team has been dispatched, **THEN ENSURE**  
provisions for two to three NRC Site Team members are  
available **AND MAINTAIN** contact with NRC Site Team Leader. ... N/A ☐ ☐
- f. PROVIDE state and local agencies with meteorological data as  
requested ..... ☐

#### 12.3 Approaching Hurricane (Category 3, 4, and 5)

- 1. COMPLETE sections 12.1 and 12.2 of this checklist..... ☐

#### 12.4 Recovery from Violent Weather

- 1. **WHEN** event is over, **THEN UPDATE** Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

#### **NOTE**

Guidance is contained in AI-4000, Conduct of Emergency Preparedness and Schedule for Radiological Emergency Response Plan Maintenance.

- 2. COORDINATE with Licensing for FEMA/NRC capability assessment..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **13.0 WORK MANAGEMENT SUPERVISOR**

##### **13.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew..... ☐
  - **GROUP 3** - Storm Recovery Crew..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐
3. CONSIDER leaving information for your staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐
5. INSPECT substation switchyard areas for loose materials that could become missiles when exposed to high winds/water **AND SECURE** as necessary. **[R7]**..... ☐
6. CONTACT Transmission and Distribution to perform site inspection for loose material that could be propelled into the switchyard..... ☐

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#### 13.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

7. CONTACT Major Projects to secure exposed work areas: ..... ☐
  - a. VERIFY laydown areas are free of missile hazards ..... ☐
  - b. VERIFY demolition/active construction sites are secured ..... ☐
  - c. VERIFY **NO** loose material could be propelled into the switchyard ..... ☐
8. Work Week Manager PERFORM the following:
  - a. VERIFY Maintenance has completed necessary storm preparations and turned in completion notifications ..... ☐
  - b. VERIFY Maintenance punch-list completed ..... ☐
9. ENSURE Work Management Supervisor is notified of checklist progress ..... ☐

#### 13.2 Approaching Hurricane (Category 1 and 2)

1. COMPLETE section 13.1 of this Checklist ..... ☐

#### NOTE

SP-443, Master Surveillance Plan should be referred to for the following step.

2. REVIEW surveillance schedules **AND** DETERMINE whether the Technical Specifications allow any required surveillances to be performed early or delayed until storm has passed **[R8]** ..... ☐
3. REVIEW work activities in plant with openings that could cause flooding in plant due to high tides such as CW system, RW system, manways, or pipe openings. .... ☐
  - NOTIFY Maintenance to provide water tight closings for these areas **AND NOT** to begin any other work to cause breaches ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **13.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 13.1 and 13.2 of this Checklist ..... ☐

#### **13.4 Recovery from Violent Weather**

1. **WHEN** event is over, **THEN** UPDATE Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 14.0 NUCLEAR INFORMATION TECHNOLOGY (NIT)

##### 14.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)

#### NOTES

- Plant Computer Specialist position is within Engineering and staffing will be managed within the Engineering organization.
- NIT is not required to staff the TSC/EOF and therefore will provide support **GROUP 2**

1. ENSURE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1** - Storm Preparations Crew..... ☐
  - **GROUP 2** - Storm Crew ..... ☐
  - **GROUP 3** - Storm Recovery Crew ..... ☐
2. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel..... ☐
3. CONSIDER leaving information for your staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
4. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **14.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)**

5. PERFORM the following to complete Site Administration Building data center preparations:
  - a. INITIATE "Full" backups of all NT business servers to a backup server at a remote NGG facility (as applicable)..... ☐
  - b. COORDINATE Telecommunication backup of voicemail systems and phone switches **AND** DELIVER completed backups to NCS personnel..... ☐
  - c. POWER OFF all non-essential equipment in the SAB data center ..... ☐
  - d. VERIFY all fireproof safes and cabinets are CLOSED..... ☐
  - e. PRE-STAGE NCS support equipment as necessary ..... ☐

#### **14.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE section 14.1 of this Checklist..... ☐
2. ENSURE coordination for adequate backup power sources to provide operating power and load capacity to the following locations:
  - Site Commercial Telephone SLIC ..... ☐
  - NAB Telecom Room ..... ☐
  - 95 ft. elevation (RP area) ..... ☐
  - Rusty Building (2nd Floor)..... ☐
  - CR Complex Telecom POP site ..... ☐
3. MOVE all backup media for phone switches and voicemail to the Control Room storage location ..... ☐



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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **14.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 14.1 and 14.2 of this checklist..... ☐

#### **14.4 Recovery from Violent Weather**

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. VERIFY electric service to NAB, Rusty Building, 95 ft. elevation  
RP area, POP site, Sprint Slick, SAB server, and network  
facilities ..... ☐
  - b. RESTORE equipment, as needed, to pre-storm conditions ..... ☐
2. **WHEN** event is over, **THEN** UPDATE Emergency Information Line per  
EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 15.0 EOF ADMINISTRATIVE ASSISTANT (FOOD/HOUSING)

##### 15.1 Potential/Approaching Tropical Storm Or Potential/Approaching Hurricane (All Categories)

1. CONTACT Violent Weather Committee Chairman for help in determining head count (TSC, Control Rm., on-shift Responders, Security, etc.) for meal orders..... ☐
2. CONTACT Violent Weather Committee Chairman for direction on meal payment method (e.g., use of purchasing card)..... ☐
3. MAKE arrangements for meal orders with the site cafeteria vendor or local restaurants, if needed (e.g., Sonny's BBQ, etc.)..... ☐
4. PURCHASE extra snacks for in between meal times (i.e. fruit, muffins, cookies, mints, etc) and include a small supply of toiletries (i.e. disposable razors, shaving gel, soap, deodorant, etc.)..... ☐
5. CONTACT Violent Weather Committee Chairman for direction on desired meal times **AND** RELAY information to vendor..... ☐
6. IF additional support is needed for picking up meals, **THEN** COORDINATE with Violent Weather Committee Chairman to obtain support..... N/A ☐ ☐
7. IF additional disposable items for meals are needed, **THEN** purchase ice, paper plates, napkins, plastic forks, spoons, and other condiments at a local store. .... N/A ☐ ☐

#### EXAMPLE

Examples of supplies needed: plates, cups, napkins, toothpicks, plastic forks, spoons, knives, bags of ice, and coffee supplies.

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**Violent Weather Committee Checklists for Storm Preparations Actions**

**15.1 Potential/Approaching Tropical Storm Or Potential/Approaching Hurricane (All Categories) (continued)**

8. ORDER drinks through Canteen (if they are available), the site cafeteria vendor, or purchase drinks from local stores..... ☐
9. IF cafeteria is **NOT** going to be used to serve the meal, **THEN** ENSURE arrangements are made where the meal will be served (e.g., set-up of tables, ice in cooler, plates, cups, napkins, forks, etc.) ..... N/A ☐ ☐
10. ENSURE coffee supplies and pots are available ..... ☐
11. ENSURE Violent Weather Committee Chairman is aware of supplies that need to be replaced ..... ☐

**15.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE section 15.1 of this Checklist..... ☐

**NOTES**

- Normally, there are enough MREs on-site to feed 70-75 personnel for seven days.
- Attachment 3, Violent Weather Supplies should be referred to for additional information on supplies.

2. ENSURE Meals-Ready-To-Eat (MRE) are available to feed those remaining on site (excluding Security personnel) during the storm. .... ☐

**15.3 Approaching Hurricane (Category 3, 4, and 5)**

1. COMPLETE sections 15.1 and 15.2 of this Checklist ..... ☐

**15.4 Recovery from Violent Weather**

- There are no additional actions are required for this section ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **16.0 MAJOR PROJECTS**

##### **16.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories)**

1. REFER to the Identified Major Projects Violent Weather Action Items list on the last page of this Checklist for additional list of items to consider. .... ☐
2. PERFORM applicable actions of EMG-ESGF-00003, Emergency Action Plan - Crystal River Energy Complex Site Administration Building. .... ☐
3. PROVIDE Maintenance Manager with organized list of storm crew personnel in the following groups:
  - **GROUP 1 - Storm Preparations Crew (Late Release Crew)** ..... ☐
  - **GROUP 2 - Storm Crew (if required)** ..... ☐
  - **GROUP 3 - Storm Recovery Crew (Early Release Crew)** ..... ☐
4. REFER to Attachment 2, Employee Considerations Before, During, And After Storm concerning items to consider for returning personnel ..... ☐
5. CONSIDER leaving information for your staff on CR3's Emergency Information line per EM-220, Attachment 6, CR3 Emergency Information Line. .... ☐
6. ENSURE roll out plans include rotation roll out and call-ins **AND** REFER to SEC-NGGC-2141, Fitness for Duty Unscheduled Work Call Outs. .... ☐

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### Violent Weather Committee Checklists for Storm Preparations Actions

#### 16.1 Potential/Approaching Tropical Storm or Potential/Approaching Hurricane (All Categories) (continued)

7. INSPECT the following areas for loose materials that could become missiles when exposed to high winds or water **AND ENSURE** freestanding materials or objects are secured or moved inside **[R7]**:
  - CR-3 Protected Area ..... ☐
  - Maintenance Fab Shop ..... ☐
  - Paint shop/Welding area ..... ☐
  - RVCH Storage Building ..... ☐
  - Once Through Steam Generator (OTSG) Storage Facility ..... ☐
  - Any construction area. .... ☐
8. ENSURE Work Management Supervisor is notified of checklist progress ..... ☐
9. CHECK emergency supplies, including flashlights, batteries, lumber, rope, nails, jersey barrels, tie-down cable, and ventilation equipment. .... ☐
10. ARRANGE for augmenting supplies as necessary. .... ☐
11. ESTABLISH pre-stage area ..... ☐
12. SECURE gas cylinders properly or relocate to storage area. .... ☐
13. Consideration installing sandbags at the SAB ..... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **16.2 Approaching Hurricane (Category 1 and 2)**

1. COMPLETE section 16.1 ..... ☐
2. CONSIDER removing rented equipment from site and also using Levy  
County property for safe storage..... ☐
3. ENSURE adequate de-watering pumps and hoses, drain plugs, and  
sandbags are available and pre staged (FSAR 2.4.2.4) ..... ☐
  - De-watering pump Cat ID 9220091246
4. CONSIDER moving emergency repair tools/equipment and supplies  
that might be needed during storm inside of water tight doors, prior to  
closing..... ☐
5. REFER to Attachment 4 Section 16.3, Identified Major Projects Violent  
Weather Action Items for additional list of items to consider. .... ☐

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **16.3 Identified Major Projects Violent Weather Action Items**

##### **INSIDE THE PROTECTED AREA:**

1. All Berm Laydown areas: secure any loose materials. Other mobile cranes, forklifts, trailers, etc. should be placed in a safe and secure condition.
2. Consideration should be given to moving vendor tractor trailers offsite.
3. Radioactive Material shipments should be directed offsite to a location unaffected by the violent weather.
4. Containers smaller than Sealands must be moved to a location that will protect the radioactive material from the violent weather.
5. Temporary RCAs should be broken down **AND** removed where possible.
6. Trailers 12, 19, 29, 43 and 89 located in the Lower Berm Area will need to be evaluated for items to be secured.
7. All areas within the Protected Area being used by contract personnel shall be evaluated for securing components, tools, and equipment necessary for sustaining violent weather.

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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **16.3 Identified Major Projects Violent Weather Action Items (continued)**

##### **OUTSIDE THE PROTECTED AREA:**

8. The following areas will need to be evaluated for items needing to be secured:
  - a. Townsend Workshop located on the southwest side of the Retirement Structure
  - b. Trailer 25 and the Rail Spur Laydown Yard, located in the CR3 Rail Spur
  - c. 230KV Parking Lot, located north of the Overflow Parking Lot
  - d. HP Sealands, located north-northwest of the car wash
  - e. HP Sealands, located inside the Rail Loop, south of the coal belt
  - f. Rail Loop Area, including the Paint Shack and Weld Testing Building
  - g. Trailer 6 PAA & Trailer 27 Trg/CBT located on the east side of the SAB
  - h. Trailer 7 CRP located on SAB East Parking Lot
  - i. Trailer 53 MoreTrench office located north of the SAB East Parking Lot
  - j. Trailer 10 located south side of CCB
9. Mammoet Laydown Yard, including Trailers 20 & 31
10. The four tents will need evaluation for removal of their fabric structures and / or steel frames:
  - a. Tent 39 is the SGT Storage Tent, located on the southeast corner of the Mammoet Laydown Yard
  - b. Tent 46 is the SGR Fabrication Tent located on the east side of the Retirement Structure



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### **Violent Weather Committee Checklists for Storm Preparations Actions**

#### **16.3 Identified Major Projects Violent Weather Action Items (continued)**

- c. Tent 80 is the SGT Warehouse Tent, located on the northeast corner of the Mammoet Laydown Yard
- d. Tent 86 is the SGR Decon Tent, located on the north side of the Retirement Structure

#### **16.4 Recovery from Violent Weather**

1. PERFORM the following as needed to restore to pre-storm conditions:
  - a. IF SAB was sandbagged, THEN REMOVE sandbags established in section 16.2 ..... N/A ☐ ☐
  - b. ARRANGE to have pre-staged emergency supplies identified in section 16.1 returned to pre-storm status..... ☐
2. WHEN event is over, THEN UPDATE Emergency Information Line per EM-220, Attachment 6, CR3 Emergency Information Line ..... ☐

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

**Nuclear Facility Services Violent Weather Guidelines****1.1 Pre-Hurricane Preparations****NOTE**

The following step may be accomplished by using slings and shackles to fasten liners together and then strap to structural beams on the turbine deck.

1. SECURE resin liners located on the turbine deck. .... ☐
2. SECURE Sea - Lands, LSA boxes, drums, and other items that may become missiles ..... ☐
3. STAGE extra sand bags in crane well for distribution ..... ☐
4. POSITION sand bags staged at the Turbine Building roll-up door in the locations, as specified ..... ☐
5. CONTACT stores to determine additional manpower requirements that they may need to secure their areas ..... ☐
6. ENSURE all gas bottles are secured ..... ☐
7. REMOVE safety mirrors from the 119' elev of the berm ..... ☐
8. The following items should be directed or performed by an experienced Fire Brigade Member:
  - a. ENSURE SHUT **AND** SECURED Fire hydrant house doors ..... ☐
  - b. ENSURE all fire hose reels are accessible for use (entire plant - inside and out) ..... ☐
  - c. ENSURE CLOSED all local alarm panel doors ..... ☐
  - d. ENSURE SECURED all compensatory hoses (if applicable) ..... ☐
  - e. ENSURE SECURED all foam carts, fire carts, and wheeled fire extinguisher, etc. .... ☐

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## Nuclear Facility Services Violent Weather Guidelines

### 1.1 Pre-Hurricane Preparations (continued)

9. PERFORM the following:

- a. TAPE all windows in the Rusty Building from the inside ..... ☐
- b. BOARD the lower windows to the 119' elev. of the Turbine Building **AND** TAPE the second story windows ..... ☐
- c. TAPE **AND** BOARD the ready warehouse windows as time permits ..... ☐
- d. TAPE **AND** BOARD buildings located in the RCA as required..... ☐

10. **WHEN** notified **AND** prior to arrival of storm, **THEN** PERFORM the following:

- a. SEND non-essential personnel home. .... ☐
- b. ENSURE SM and Emergency Coordinator have an updated list of personnel on site..... ☐

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### Nuclear Facility Services Violent Weather Guidelines

#### 1.2 Recovery from Violent Weather

1. **WHEN** the event is over, **THEN** OBTAIN permission from SM or Emergency Coordinator to perform an evaluation of the area for damage and to assist in development of a recovery plan ..... ☐
2. CALL-IN adequate additional personnel for clean up..... ☐
3. RESTORE boats at intake canal to normal status ..... ☐
4. RESTAGE sand bags placed in the plant ..... ☐
5. RESTORE all empty tanks to normal condition ..... ☐
6. RETURN all trash cans removed from berm and parking lots to their normal locations..... ☐
7. RESTORE all windows and doors to normal status ..... ☐
8. RETURN items ordered from the warehouse that have **NOT** been damaged to the warehouse **AND** NOTIFY the warehouse to re-inventory and restock all expended material (Charges should be placed against applicable storm numbers)..... ☐
9. RETURN Sea - Lands, LSA boxes, and drums to their normal configuration ..... ☐
10. RETURN resin liners located on the Turbine deck to normal configuration, as applicable ..... ☐
11. RETURN de-watering equipment..... ☐
12. RETURN bedding and blankets to warehouse ..... ☐
13. RESTORE all gas bottles to normal status ..... ☐
14. REMOVE tape and boarding material from all windows ..... ☐
15. REINSTALL the safety mirrors on the 119' elev of the berm..... ☐

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## Nuclear Facility Services Violent Weather Guidelines

### 1.3 LOCATIONS TO INSTALL SAND BAGS

#### NOTES

- Do **NOT** place any sand bags in the plant unless specifically instructed by the SM or Emergency Coordinator.
- The locations for sand bag installation listed below are prioritized from top to bottom.
- Griffolyn is to be used to help leak proof areas being sand bagged.
- The object of sand bags at C105 is to stop water flow toward the 95' Elev. Auxiliary and Intermediate Buildings. A double row of sand bags is required.

#### 1.3.1 95' Elev. Turbine Building

1. PLACE sandbags in the following locations:
  - Door C105, between the Turbine Building and the Control Complex..... ☐
  - Around the PRESS heater MCC 3A/3B Current Limiting Reactors in the Southeast corner..... ☐
  - Around WTR Treat Current Limiting Transformers 3A and 3B. Units are located on the North side of Operators office. One unit is inside the fenced area..... ☐
  - Both entrances to the 480V switchgear room..... ☐
  - The battery room external doors. Depending on water levels, it may be required to sand bag the internal door to protect the charger area..... ☐
  - Depending on the expected water level, it may be required to sand bag around the 6900V/4160V (MTTR-5) and Rx Aux Transformer..... ☐
  - Around ACDP-60, by battery room..... ☐
2. IF time permits, **THEN** INSTALL sandbags around the remaining panels on the 95' Elev..... N/A ☐ ☐

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### Nuclear Facility Services Violent Weather Guidelines

#### 1.3.1 95' Elev. Turbine Building (continued)

##### NOTE

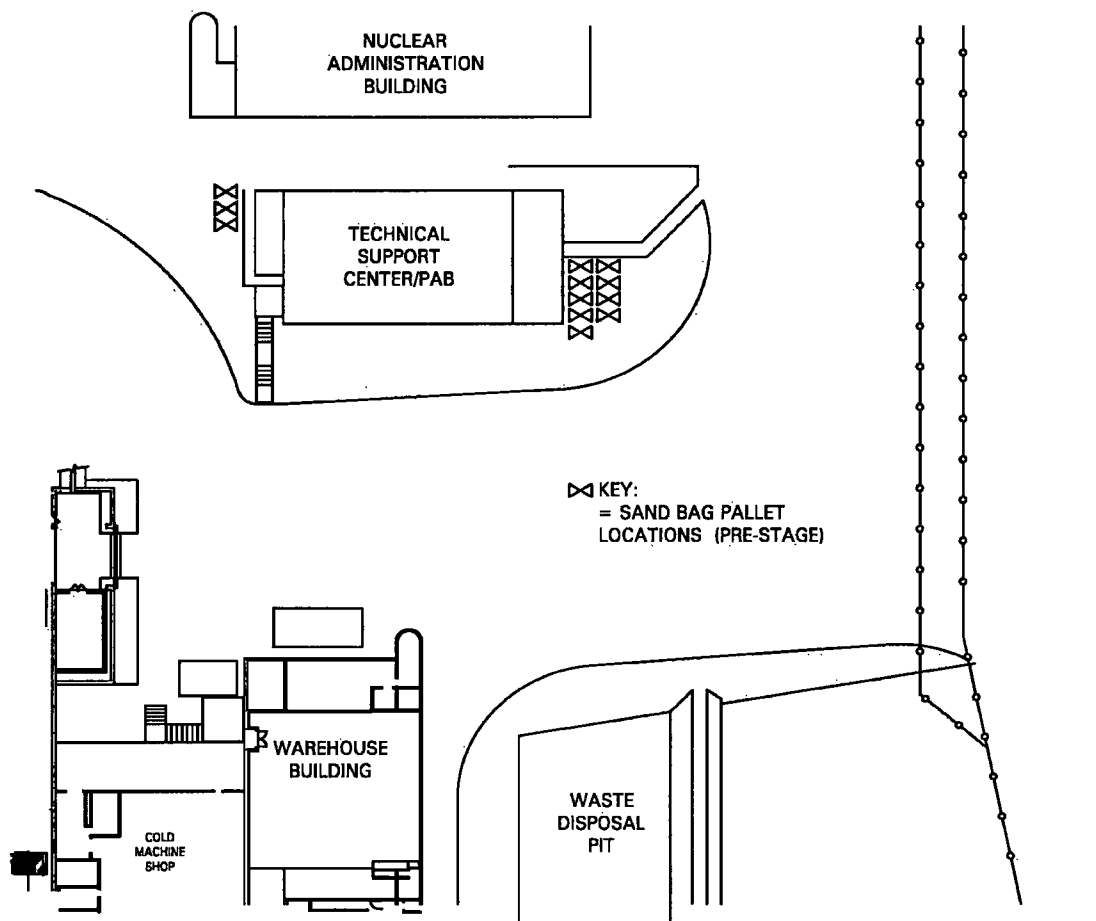
The following step will allow water to fill the Tendon Gallery (where there is **NO** vital equipment) without allowing the water level to rise to a dangerous level in the AB and IB.

3. MONITOR for signs of water on the 95' elev of the Auxiliary and Intermediate Buildings. .... ☐
4. IF water appears to be back flowing in through the sumps or leaking in by other methods, **THEN NOTIFY the SM AND PERFORM** the following:
  - a. OPEN Fire Doors on each end of the Intermediate Building ..... N/A ☐ ☐
  - b. OPEN the steel doors to the Tendon Gallery ..... N/A ☐ ☐
  - c. USE a Sand Piper, Water Pump, or other methods to pump water into the 95' elev. Intermediate Building, Tendon Gallery area, from the Auxiliary Building..... N/A ☐ ☐

## Nuclear Facility Services Violent Weather Guidelines

### 1.3.2 BERM

1. INSTALL sandbags around the entrance and exit doors to the security building per Attachment 4 Section 3.0, Maintenance – Facility Services ..... ☐
2. INSTALL sand bags around the TSC as specified per Attachment 4 Section 3.0, Maintenance – Facility Services..... ☐



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Hurricane Map

