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CRYSTAL RIVER UNIT 3

PLANT OPERATING MANUAL

EM-220

VIOLENT WEATHER

TABLE OF CONTENTS

SECTION PAGE

1.0 PURPOSE 3

2.0 REFERENCES 3
2.1 DEVELOPMENTAL REFERENCES 3

3.0 PERSONNEL INDOCTRINATION 3
3.1 DEFINITIONS 3
3.1.1 Flood Warning 3
3.1.2 Tornado 3
3.1.3 Tornado Watch 3
3.1.4 Tornado Warning 4
3.1.5 Tropical Storm 4
3.1.6 Tropical Storm Watch 4
3.1.7 Tropical Storm Warning 4
3.1.8 Hurricane 4
3.1.9 Hurricane Watch 4
3.1.10 Hurricane Warning 4
3.2 RESPONSIBILITIES 5
3.3 LIMITS AND PRECAUTIONS 5

4.0 INSTRUCTIONS 6
4.1 FLOOD WARNINGS 6
4.1.1 Maintenance 6
4.1.2 Security 6
4.1.3 Operations 7
4.2 TORNADO WATCH OR TORNADO WARNING 7
4.2.1 Operations 7
4.2.2 Maintenance 7
4.2.3 Security 7
4.3 TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH (ALL CATEGORIES) 8
4.4 HURRICANE WARNING (CATEGORY 1 AND 2) 8
4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5) 8

5.0 RECOVERY FROM VIOLENT WEATHER 8

ENCLOSURES

1 Violent Weather Committee 9
2 Plant Elevation Data 11
3 Checklists (1-9) for Storm Preparations 30
4 List of Station Blackout Equipment to be Verified Operable/ Functional 72
5 Decision Matrix for Plant Shutdown due to Violent Weather 75
6 Employee Considerations Before, During and After the Storm 76
7 CR-3 Emergency Information Line 78
8 Violent Weather Supplies 79
9 Hurricane Map 84

1.0 PURPOSE

1.1 This procedure provides guidance during the onset of a Flood Warning, Tornado Watch, Tornado Warning, Tropical Storm Watch, Tropical Storm Warning, Hurricane Watch, and Hurricane Warning; and implements activities to ensure plant safety by having the necessary equipment and supplies on hand. This procedure also provides for guidance in recovering from the effects of a hurricane and implements SOER 02-01, Violent Weather [NOCS 100389]

The implementation of this procedure does NOT mean the Radiological Emergency Response Plan (RERP) has been entered.

1.2 This procedure assures the Violent Weather Committee is convened at a Hurricane Watch to discuss implementation of storm preparations. The Committee reconvenes as necessary based on hurricane advisory from the National Hurricane Center to discuss actions and activities. [NOCS 40350]

2.0 REFERENCES

2.1 Developmental References

2.1.1 EOP-012, "Station Blackout"

2.1.2 EM-202, "Duties of the Emergency Coordinator"

2.1.3 FSAR Sections 1.9.7; 2.4.2.4; 2.4.2.4.1; 9.3.2; 9.6.2.7;

2.1.4 NUMARC 87-00, Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors

2.1.5 Radiological Emergency Response Plan

2.1.6 SOER 99-01, Loss of Grid

2.1.7 SOER 02-01, Severe Weather

3.0 PERSONNEL INDOCTRINATION

3.1 Definitions

CR-3 location: Latitude 28.9N
Longitude 82.7W

NOTE
Definitions are listed in order of severity level of storm category.

3.1.1 Flood Warning

CR-3 begins flood preparations when the 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 about 96 feet.

3.1.2 Tornado

A violently rotating column of air in contact with the ground, usually developing from severe thunderstorms or hurricanes.

3.1.3 Tornado Watch

Alerts an area of the possibility of a tornado and usually lasts for 2 to 4 hours.

3.1.4 Tornado Warning

Issued when a tornado has been sighted in the area. The area issued for is usually smaller than the area for which a watch is declared.

3.1.5 Tropical Storm

A 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.

3.1.6 Tropical Storm Watch

Alerts an area of a Tropical Storm approximately 36 hours away. It gives maximum winds, direction, and speed of travel as well as potential for intensification.

3.1.7 Tropical Storm Warning

Issued when a Tropical Storm is 12 to 24 hours from and approaching the Florida coast.

3.1.8 Hurricane

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

3.1.9 Hurricane Watch

Alerts an area of a possible hurricane approximately 36 hours away. Includes an area about 100 miles either side of the expected place where the hurricane could make landfall. It gives size, maximum winds, direction, and speed of travel.

3.1.10 Hurricane Warning

Issued when winds are projected to be greater than or equal to 74 mph within the next 24 hours. Includes an area about 50 miles either side of the expected place where the hurricane could make landfall. The size of the area included is determined by the area over which hurricane force winds are expected. This warning gives the expected time and location where the hurricane may strike the coast, as well as the size, maximum winds, direction, and speed of travel. The warning also describes the coastal areas where high water, floods, or high waves are expected.

Storm Category	Wind Speed (mph)	Maximum Storm Surge (feet)*
Tropical Storm	39-73	< 5
1	74-95	5-10
2	96-110	11-17
3	111-130	18-24
4	131-155	25-31
5	> 155	> 32

*Storm Surge based on worst case/direct hit for Citrus County.

3.2 Responsibilities

3.2.1 The Plant General Manager (PGM), or designee, ensures the implementation of this procedure. The functions responsible for violent weather preparations are listed on Enclosure 1. The names and phone numbers for activation of the Violent Weather Committee are listed in the Violent Weather Committee and Volunteer Phone Directory, maintained on the Emergency Preparedness Web Page.

3.2.2 The Emergency Coordinator (EC) ensures the implementation of EM-202, as appropriate, in conjunction with implementation of this procedure.

3.2.3 The PGM or designee coordinates CR-3 response during the preparation for a hurricane or other violent weather warranting the activities of the Violent Weather Committee and ensures EM-220 documents these activities.

> **NOTE**
>
> Individuals listed below or their designees are Violent Weather Committee members and are responsible for keeping the PGM or designee informed of preparation status and for ensuring appropriate checklists from Enclosure 3 are completed.

3.2.4 The Manager Operations ensures Operations personnel are available to carry out appropriate emergency functions as addressed in EM-202 and violent weather preparations contained in this procedure.

3.2.5 The Manager Maintenance ensures Maintenance personnel are available to carry out violent weather preparations contained in this procedure.

3.2.6 The Superintendent Security ensures Security personnel are available to carry out violent weather preparations as identified in this procedure.

3.2.7 The Superintendent Systems Engineering verifies operability and availability of communications equipment as identified in this procedure.

3.2.8 The Warehouse Supervisor ensures warehouse personnel are available to carry out violent weather preparations as identified in this procedure.

3.2.9 The Supervisor Emergency Preparedness acts as county and state liaison.

3.2.10 The Superintendent Environmental and Chemistry ensures Chemistry personnel are available to carry out violent weather preparations contained in this procedure.

3.2.11 The Manager Outages & Scheduling ensures scheduling and switchyard activities are carried out as identified in this procedure.

3.2.12 The Superintendent Radiation Protection ensures Radiation Protection personnel are available to carry out violent weather preparations contained in this procedure.

3.3 LIMITS AND PRECAUTIONS

3.3.1 NOCS and FSAR references located at the end of a step designate requirements. Other steps may be completed at the discretion of the responsible manager.

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

3.3.3 Emergency Diesel Generators are NOT to be loaded onto the grid during severe weather conditions to prevent off-site grid disturbances from affecting them. [NOCS 100336]

3.3.4 Tropical storms or hurricanes that produce strong east to west winds may cause blow out conditions, reducing the level of the Ultimate Heat Sink. If coupled with a low tide, even a 30 mph wind could be a cause for concern.

3.3.5 Preparations for a hurricane are extensive. 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.

3.3.6 Due to possible telephone problems and plant access problems, supervisors should determine as soon as possible the availability of their personnel during and after the storm, and communicate to them when they are expected on-site. No more than 75 personnel should be at CR3 during the storm.

3.3.7 Evacuate unnecessary personnel in the Protected Area and visitors in the Owner Controlled Area in a timely manner. Flooding may make later evacuation difficult.

3.3.8 When hurricane winds quickly subside and rain stops, this could mean the center of the storm or "eye" is over the area. It is recommended personnel remain indoors since strong winds begin blowing again from the opposite direction as the second half of the hurricane passes.

3.3.9 Keep outside activities to a minimum during high winds to prevent injuries from flying debris.

3.3.10 Severe weather conditions are NOT over until the National Weather Service indicates there is no longer a threat to the area.

3.3.11 The flooding level for the TSC is 101 feet 6 inches or approximately 9 feet above mean high tide. (Installation of flood barriers allows water level to reach 105.6'). If this level is projected in the canal, consider moving TSC activities to the Control Complex before conditions prevent an orderly transition or flood doors are closed.

4.0 INSTRUCTIONS

4.1 Flood Warnings (NOT associated with Tropical Storm or hurricane)

See Enclosure 2 for plant elevation data.

4.1.1 Maintenance

4.1.1.1 CLOSE non-watertight windows and doors throughout the plant as necessary.

4.1.1.2 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.

4.1.1.3 EVALUATE the need to de-energize electrical power supplies identified in Enclosure 2, based on rising water levels.

4.1.1.4 MOVE water craft at intake structure.

4.1.1.5 PLACE sandbags or other flood protection as necessary.

4.1.1.6 FUEL company vehicles.

4.1.1.7 NOTIFY shift augmentations, if needed, 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.

4.1.2 Security

4.1.2.1 FUEL Security vehicles and move to high ground.

4.1.2.2 EVALUATE the need for additional Security support. The members of the Security Force who are on duty and intend to stay during the storm, should be allowed the necessary time off to ensure their off-duty concerns are addressed prior to returning to CR-3 for the duration of the storm.

4.1.2.3 ENSURE Emergency Medical Technician (EMT) coverage is provided.

4.1.2.4 REVIEW the CR3 Safeguards Contingency Plan and SS-206.

4.1.2.5 DISCUSS the following with appropriate personnel:

a. CONSIDER having markers installed along access road to mark roadway.

b. CONSIDER having personal vehicles moved from the CR3 parking lot and reserved parking area to the 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. CONSIDER staging a high ground clearance vehicle in a location to shuttle personnel in and out of the site. CONSIDER use of coal yard locomotive.

4.1.2.6 Based on events, be prepared to:

a. ESTABLISH the Security command post at the Central Alarm Station (CAS) or Control Complex.

b. CONSULT with the EC, or PGM designee, to determine suspension of safeguards.

c. CONDUCT Protected Area accountability.

4.1.2.7 IF safeguards are suspended,
THEN:

a. NOTIFY the NRC in accordance with SEC-NGGC-2147.

b. STOP outside patrols.

c. TRANSFER outside patrol functions to inside patrols on the interior of the Control, Intermediate, Auxiliary, and Turbine Buildings as needed. USE CCTV systems if available.

4.1.2.8 INFORM the EC, or PGM designee, of actions.

4.1.3 Operations

Actions are contained in Enclosure 3, Checklist 2, Section 4.1.3.

4.2 Tornado Watch or Tornado Warning

4.2.1 Operations

Actions are contained in Enclosure 3, Checklist 2, Section 4.2.1.

4.2.2 Maintenance

CAUTION

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

4.2.2.1 INSPECT the site for loose materials and debris which could become missiles in a strong wind and REMOVE to the maximum extent possible. [NOCS 40338]

4.2.3 Security

4.2.3.1 NOTIFY Security personnel of the current violent weather condition and INFORM them of the declared Tornado Watch or Warning.

4.2.3.2 REVIEW the CR3 Safeguards Contingency Plan and SS-206.

4.2.3.3 NOTIFY the Security Force that any visible sightings of a tornado should be immediately reported to the Control Room and Security Shift Supervisor.

4.2.3.4 LIMIT outside functions.

4.2.3.5 IF regulatory commitments are NOT maintained due to extended Tornado Warning, THEN REFER to SEC-NGGC-2147 for NRC reportability process.

4.3 Tropical Storm Watch or Warning, or Hurricane Watch (All Categories)

Wind Speed: 39-73 mph Storm Surge: <5 feet

Members of the Violent Weather Committee ENSURE implementation of Section 4.3 of their respective checklists in Enclosure 3.

4.4 Hurricane Warning (Category 1 and 2)

Wind Speed: 74-110 mph Storm Surge: 5-17 feet

Members of the Violent Weather Committee ENSURE implementation of Section 4.4 of their respective checklists in Enclosure 3.

4.5 Hurricane Warning (Category 3, 4, and 5)

Wind Speed: >110 mph Storm Surge: >18 feet

Members of the Violent Weather Committee ENSURE implementation of Section 4.5 of their respective checklists in Enclosure 3.

5.0 RECOVERY FROM VIOLENT WEATHER

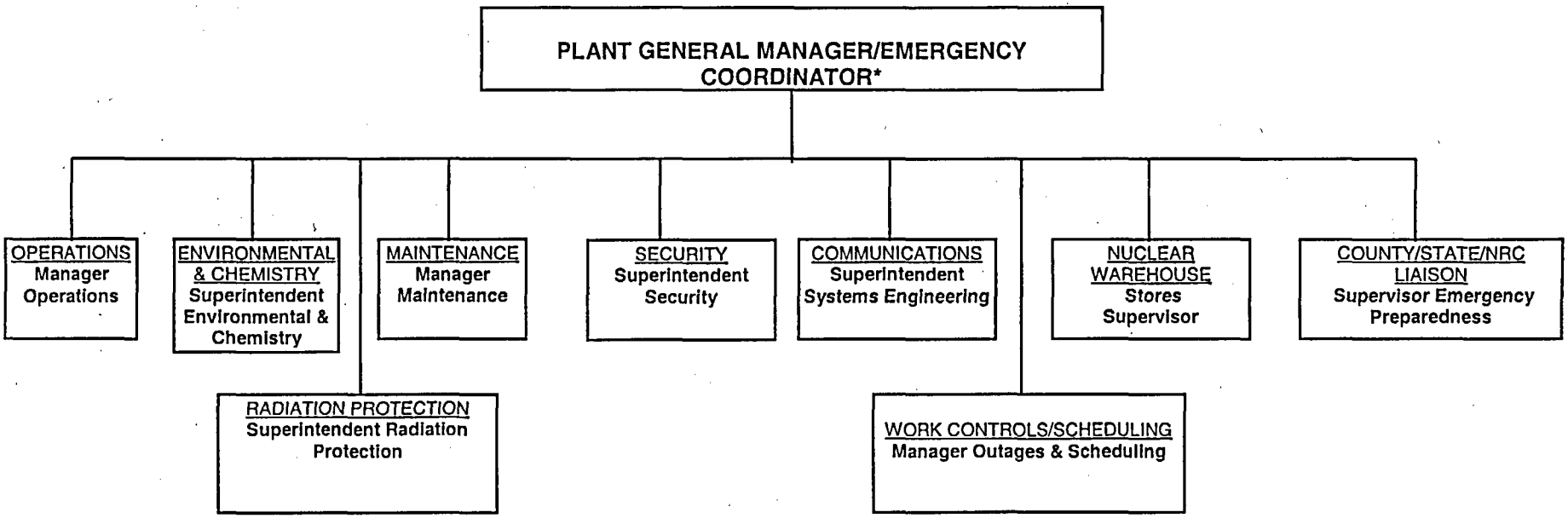
Recovery activities are located under Section 5.0 of each individual checklist on Enclosure 3.

VIOLENT WEATHER COMMITTEE FUNCTION RESPONSIBILITIES

Violent Weather Committee members are identified in the Violent Weather Committee/Volunteer phone directory maintained on the Emergency Preparedness Web page. The following identifies the functions responsible for the respective checklists of Enclosure 3.

	RESPONSIBLE FUNCTION
Checklist 1	Plant General Manager or Designee
Checklist 2	Operations
Checklist 3A	Maintenance – Facility Services
Checklist 3B	Maintenance – Mechanics
Checklist 3C	Maintenance – Electricians
Checklist 3D	Maintenance – I&C
Checklist 4A	Radiation Protection
Checklist 4B	Environmental & Chemistry
Checklist 5	Security
Checklist 6	Communications
Checklist 7	Nuclear Warehouse
Checklist 8	Emergency Preparedness
Checklist 9	Work Controls/Scheduling

ORGANIZATIONAL CHART FOR VIOLENT WEATHER COMMITTEE



*During Emergency Plan Implementation

PLANT ELEVATION DATA

(Referenced to PLANT Datum Point)

Location/Parameter	Elevation
Mean High Tide (Normal for CR-3)	92' 0"
Ground Elevations Surrounding Plant	92' to 98'
INTAKE:	
Intake Structure Deck	99' 0"
Intake Chamber Floor	67' 0"
Minimum CW Pump Operating Level	81' 0" (FSAR)
Minimum RW Pump Operating Level	73' 8" (FSAR)
Canal (minimum elevation)	~73' (FSAR)
DISCHARGE:	
Discharge Wall (top)	99' 0"
Spillway Crest (weir)	87' 0"
SUBSTATIONS/SWITCHYARD:	
CR-3 500 kV ground elevation	98'
CR-3 500 kV Blockhouse floor	100' 6"
CR-1&2 230 kV ground level	98'
MISCELLANEOUS:	
Backup Meteorological Tower Base	99'
CR-3 Berm	118' 6"
CR-3 Watertight Wall (top)	129' 0"
Technical Support Center (lowest flooring)	101' 6"
Security Building	99'
CR-3 Parking Lot	97' 6"
Environmental Warehouse	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 and Pre-Assembly Building	97' 9"
Cafeteria and Conference Building (CCB)	102' 6"

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

*Asterisks denote points which share a common positive potential with the circuits to be isolated but are NOT necessarily in same geographic area.

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

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

INTAKE STRUCTURE 99' ELEVATION				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINTS
PAX	CMP-422	Speaker Amp SA-3113	48VDC	- Box CM-1
PAX	CMP-423	Handset H-351	48VDC	Circuit CMP-420
PAX	CMP-424	Speaker Amp SA-3113	48VDC	Terminals 1 and 3,
PAX	CMP-425	Speaker S-3113	48VDC	6 and 7, 10 and 12
PAX	CMP-426	Speaker Amp SA-3112	48VDC	
PAX	CMP-427	Speaker S-3112	48VDC	- Box CM-3
PAX	CMP-428	Speaker Amp SA-3114	48VDC	Circuit CMP-422
PAX	CMP-429	Handset H-352	48VDC	Terminals 1 and 2,
PAX	CMP-430	Speaker Amp SA-3114	48VDC	5 and 6
PAX	CMP-431	Speaker S-3114	48VDC	
PAX	CMP-436	Speaker Amp SA-3114	48VDC	- Main Dst. Frame
PAX	CMP-437	Handset H-372	48VDC	TB6-A
PAX	CMP-438	Speaker Amp SA-3142	48VDC	Circuit CMP-432
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
PAX	CMP-469	Ringer TLS 352	48VDC	must be disconnected
PAX	CMP-1489	H-351A & FTC Line	48VDC	to isolate all Intake
PAX	CMP-858	Speaker Amp SA-3115	48VDC	Structure PAX circuits
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	

		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	

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

*Asterisks denote points which share a common positive potential with the circuits to be isolated but are NOT necessarily in the same geographic area.

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

*Asterisks denote points which share a common positive potential with the circuits to be isolated but are NOT necessarily in the same geographic area.

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

*Asterisks denote points which share a common positive potential with the circuits to be isolated but are NOT necessarily in the same geographic area.

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING#	VOLTAGE	ISOLATION POINT/S
Annunciator	SBK-005	500KV Bkr 1662 Low Air Pressure		125VDC	0836, AP and 0837
Annunciator	SBK-006	500KV Bkr 1662 Trouble		125VDC	
Annunciator	SBK-076	Plant Line 4 Primary Diff.		125VDC	0858, AP and 0859
Annunciator	SBK-075	230KV Bkr 1692 High Pressure Sym Low Air Pressure		125VDC	
Annunciator	SBK-016	Plant Line 4 Bkup Diff.		125VDC	0862 and AP
Annunciator	SBK-072	500KV Sub Oscillograph Alarm		125VDC	0849 and AP
Annunciator	SBK-073	230KV Bkr 1692 Open		125VDC	0855 and AP
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	

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-001	100A Safety Switch "A"	S171-1563D SH.2	125VDC	Control Bd. SSAA-6 TB 4A Terminals 1,2
DC Circuits	SBV-004	100A Safety Switch "B"	S171-1563D SH.2	125VDC	Control Bd. SSAA-2 TB 2A Terminals 1,2
DC Circuits	SBV-007	Transfer Diff. 230/4KV	S171-1563D SH.1	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	125VDC	Control Bd. SSAA-6 TB 3 Terminals 11,12,13,14
DC Circuits	SBV-013	230KV Bus #9 Pot.	S171-1563D SH.1	125VDC	Control Bd. SSAA-5 TB 3 Terminals 4,5,6
DC Circuits	SBV-015	Bkr 1661 Control	S171-1561D SH.1	125VDC	Control Bd. CFA/SSTR TB 11 Terminals 1,2,3,4
DC Circuits	SBV-017	Bkr 1661 Control	S171-1561D SH.1	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	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	125VDC	Control Bd. SSAA-1 TB 4 Terminals 4,5
DC Circuits	SBV-027	Bkr 3211, 3212 Trip Coil 1	S171-1560D SH.2	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	125VDC	Control Bd. Misc/SSTR TB 4 Terminals 19,20,21
DC Circuits	SBV-047	Bkr 4900 Control	S171-1563D SH.2	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 2,6,7

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-051	Bkr 3211, 3212 Trip Coil 1	S171-1560D SH.2	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	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 21,22,23
DC Circuits	SBV-087	Bkr 1662 Control	S171-1560D SH.1	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 12,13,14,15
DC Circuits	SBV-089	Bkr 1662 Control	S171-1560D SH.1	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 16,17,18,19
DC Circuits	SBV-092	Bkr 1662 Control	S171-1560D SH.1	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	125VDC	Control Bd. GFA/SSTR TB 2 Terminals 5,6,7,8
DC Circuits	SBV-106	Unit 3 Isolating XFMR	S171-1563D SH.2	125VDC	Control Bd. SSAA-10 TB 2 Terminals 9,10
DC Circuits	SBV-118	Unit 3 Isolating XFMR	S171-1561D SH.2	125VDC	Control Bd. SSAA-10 TB 2 Terminals 1,3
DC Circuits	SBV-129	Unit 3 Isolating XFMR	S171-1560D SH.2	125VDC	Control Bd. GFA/SSTR TB 6 Terminals 11,12
DC Circuits	SBV-131	Unit 3 Prot. Int. Relay Trip	S171-1560D SH.1	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	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	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	125VDC	Control Bd. SSAA-1 TB 4 Terminals 10,13,17,18

SWITCHYARD 101' ELEVATION					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
DC Circuits	SBV-139	Alarm 1 Bkr 4900, 4902	S171-1560D 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	125VDC	Control Bd. Misc/SSTR TB 2 Terminals 23,24
DC Circuits	SBV-153	Bkr 3211, 3212 L.O.	S171-1560D SH.2	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	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	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

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	Main XFMR 3-1 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

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
AC Circuits	PSC-003	ACDP GH-1	EC-206-064	480VAC	MTMC-13-8A *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.

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 2nd 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 approx. 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.

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

ENVIRONMENTAL AND CHEMICAL WAREHOUSES EL. 100'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Main Breaker for Environmental and Chemical Warehouses	480VAC	Main Breaker for Chemical and Environmental Warehouses located Outside on N.W. corner of Receiving Warehouse.

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 CR-3 warehouse.

STRUCTURES EL. 99'				
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	VOLTAGE	ISOLATION POINT/S
AC Circuits	N/A	Disconnect (de-energize) Buildings K1, K2, 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

TSC EL.101' PROTECTED TO 105.6' EL.					
SYSTEM	CIRCUIT #	DEVICE DESCRIPTION	DRAWING #	VOLTAGE	ISOLATION POINTS
AC Circuits	ACC-047	235 KW Diesel Generator MEDG-1	EC-206-072	480VAC	1. Secure MEDG-1 and Disconnect Batteries
AC Circuits	ACC-046	Turbine Aux Bus 3B Unit 4D	EC-206-072	480VAC	
					2. Open Bkr MTSW-3B Unit 4D
AC Circuits	ACC-048	ACDP-111 (MAIN)	EC-206-072	480VAC	*Note: The above must
AC Circuits	ACF-123	ACDP-117	EC-206-072	208/120VAC	accomplished in numbered order
AC Circuits	ACF-117	ACDP-113	EC-206-072	480/277VAC	to avoid generator start-up.
AC Circuits	ACF-119	ACDP-112	EC-206-072	208/120VAC	
					All PAX Circuits to TSC can be
PAX	CMP-1115	TSC PAX Circuits (All)	SS-211-014	48VDC	isolated by opening all links
					on TB2-C in PAX Main Dist.
					Frame. (5 pairs)

CHECKLIST 1
PLANT GENERAL MANAGER OR DESIGNEE

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	IF the potential size and direction of the storm warrants convening the Violent Weather Committee, THEN NOTIFY the violent weather members. EVALUATE their availability and INFORM them where to report to discuss storm preparations. [NOCS 40348]	_____
b.	NOTIFY NRC Resident of planned Committee Meeting.	_____
c.	DETERMINE partial or full implementation of respective checklists, depending on storm classification for area. ENSURE Committee knows when EM-220 has officially been entered versus reviewing of checklists for pre-storm preparations.	_____
d.	ENSURE the Superintendent Shift Operations is aware of results from the Violent Weather Committee meeting, especially conditions that will put CR-3 into Emergency Plan.	_____
e.	REFER TO Enclosure 2 for plant elevation data for flood contingencies, as needed.	_____
f.	ENSURE Security determines safe place for vehicles during storm.	_____
g.	COORDINATE the release of non-essential personnel in a phased, controlled manner at the completion of Hurricane preparations or as personal circumstances dictate. RELEASE in advance of severe weather conditions to allow them to arrive home safely and avoid undue congestion.	_____
h.	ENSURE management continues to discuss hurricane preparations when hurricane advisory upgrades are issued by the National Hurricane Center that affect Citrus County. [NOCS 40350]	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

		Check-Off
a.	CONSULT EM-202, Enclosure 1, for implementation.	_____
b.	ENSURE arrangements are made for Operators and Support Staff to be transported to the plant site if plant access road becomes impassable by passenger car. [NOCS 40348]	_____
c.	CONSIDER the safety benefits gained by taking protective actions, including plant shutdown. REVIEW Enclosure 5 to determine if plant should be shutdown due to the weather. [NOCS 40350]	_____
d.	ENSURE pre-staged supplies are relocated to within flood-protected area.	_____
e.	REQUEST unusual or abnormal conditions identified during preparations be reported to PGM or designee.	_____
f.	ENSURE EM-220 is maintained and transmitted to Records Management upon exit from EM-220.	_____
g.	CONSULT EM-102, Enclosure 5, to secure TSC/OSC and ESTABLISH alternate command center as needed for the remainder of the hurricane.	_____
h.	While conditions are safe, REDUCE Committee staffing to provide TSC minimal staffing requirements (REFER to Enclosure 6, Group 2 Staffing Levels). MOVE to the Control Complex for the duration of the hurricane as conditions warrant.	_____
i.	ENSURE Supervisors brief storm response personnel on the storm, safety precautions, expected duties, potential problems, contingencies, and communications systems, as identified in Enclosure 6.	_____
j.	ENSURE food available for those remaining on site. Current supply of Meals-Ready-To-Eat feed 70-75 personnel for seven days. Use these supplies to feed those remaining on site during the storm.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2) (Cont'd)

		Check-Off
k.	DETERMINE possible safe sleeping locations within the Control Complex, or other safe locations depending on storm significance, and ENSURE Maintenance implements personal sleeping plans.	_____
l.	ENSURE Security takes action to move vehicles for protection from flood or wind damage if needed.	_____
m.	ENSURE departments notify Security of personnel accountability upon completion of preparation for the storm and current staffing levels are what they will be during the storm.	_____
n.	REQUEST Security to perform accountability to verify number of personnel on site.	_____
o.	CONSIDER assigning someone to video tape plant area prior to storm and again immediately after the storm for event records/insurance purposes.	_____
p.	CONSIDER removal of Direct TV Satellite dish from TSC roof.	_____
q.	ENSURE the "general" information on the Employee Emergency Line for non-essential personnel is updated as needed. Refer to Enclosure 7.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

IN ADDITION TO COMPLETION OF SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 3, 4, OR 5 HURRICANE WARNING.

a.	CONSULT with corporate officials on arranging for helicopters to bring support personnel and equipment to the site immediately after passage of the storm as necessary.	_____

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

Check-Off

NOTE

The Progress Energy Storm Center information is available on the web at: http://storm. The purpose of the center is to provide information on storm damage and as a resource to coordinate and allocate corporate resources (additional crews, helicopters, medical, etc.) in response to the restoration effort.

a. ENSURE access to Energy Complex has been restored. CONSIDER berm location for suitable helicopter landing sites as needed. _____

b. NOTIFY Fleet Administration to ensure equipment is on hand to make emergency vehicle repairs. Tire damage is a major problem during storms. _____

c. REMOVE unsafe industrial conditions such as exposed and energized power lines; unstable structures; broken glass; grass removal. _____

d. NOTIFY Fossil Units to determine overall damage. _____

e. 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. _____

f. DISPATCH a representative to the Emergency Operations Facility or appropriate location for employee assistance. _____

g. ENSURE overall restoration of plant activities is being performed based on individual checklists. _____

Completed by: _____ Date: _____

CHECKLIST 2
OPERATIONS

This Checklist provides guidance for Operations during the onset of a Flood Warning, Tornado Watch, Tornado Warning, Tropical Storm Watch, Tropical Storm Warning, Hurricane Watch, and Hurricane Warning.

Sections 4.1.3 and 4.2.1 have been made part of Checklist 2 at the request of Operations. Attachment 2 to this checklist is also provided for information on sources of weather data, as requested by Operations.

4.1.3 Flood Warnings

Definitions are contained in Section 3.1. See Enclosure 2 for plant elevation data.

		Check-Off
4.1.3.1	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. (COORDINATE with Maintenance)	_____
4.1.3.2	NOTIFY shift augmentations, if needed, 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.	_____
4.1.3.3	CONSIDER having personal vehicles moved from the CR-3 parking lot and reserved parking area to the Site Administration Building or end of access road when water levels are projected to rise past 96 feet (4 feet above normal high tides). (Coordinate with Security)	_____
4.1.3.4	REVIEW Enclosure 5 for plant shutdown considerations due to flooding. [NOCS 40350]	_____
4.1.3.5	PLACE Plant in "CONDITION YELLOW".	_____
4.1.3.6	ENSURE EM-220 is maintained and transmitted to Records Management upon exit from EM-220.	_____

4.2.1 Tornado Watch or Tornado Warning

Definitions are contained in Section 3.1.

CAUTION

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

4.2.1.1	Upon issue of a Tornado Watch, SUSPEND fuel handling operations and ENSURE Spent Fuel pool missile shields are in place and bolted. [NOCS 1005] (FSAR 9.3.2, 9.6.2.7) This step should also be performed during a Tornado Warning, as time permits, when NO Tornado Watch is issued prior to the Warning.	_____

		Check-Off
4.2.1.2	REVIEW safety-related equipment status and RETURN to service any important inoperable equipment, if possible. [NOCS 40338, 40344]	_____
4.2.1.3	PLACE Plant in CONDITION YELLOW.	_____
4.2.1.4	Upon issue of a Tornado Watch, and after evaluation by the SSO of outside conditions, SECURE intake crane (CWCR-1) with two locking pins at hard stops.	_____
4.2.1.5	Upon issue of a Tornado Warning, NOTIFY Security of the severe weather condition.	_____
4.2.1.6	ANNOUNCE over the PA system that CR3 is in a Tornado Watch or Warning and to maintain limited access to outside areas.	_____
4.2.1.7	Upon issue of a Tornado Warning, PLACE the Control Complex HVAC in the Recirculation Mode.	_____
4.2.1.8	REVIEW EM-202 for applicable Emergency Action Levels.	_____
4.2.1.9	Upon issue of a Tornado Warning, NOTIFY the Dispatcher to determine transmission load requirements. If the Dispatcher CANNOT be notified, the Superintendent Shift Operations determines the load.	_____
4.2.1.10	IF the plant becomes detached from the grid, THEN do NOTattempt to close in on the grid, AND NOTIFY the Dispatcher. [NOCS 100336]	_____
4.2.1.11	INSPECT the site if possible, for loose materials and debris which could become missiles in a strong wind and REMOVE them to the maximum extent possible. (Coordinate with Maintenance) [NOCS 40338]	_____
4.2.1.12	NOTIFY the security force that any visible sightings of a tornado should be immediately reported to the Security Shift Supervisor and Control Room.	_____
4.2.1.13	LIMIT outside functions.	_____
4.2.1.14	REVIEW and PERFORM applicable items from Attachment 1 of this checklist upon notification that the area is no longer in a Tornado Watch or Tornado Warning. If in question, REQUEST confirmation.	_____
4.2.1.15	ENSURE EM-220 is maintained and transmitted to Records Management upon exit from EM-220.	_____

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH

[redacted]

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

Definitions contained in Section 3.1.

Each On-Coming Superintendent Shift Operations should read the six items below, initial and date as indicated. Additional pages may be made to document additional time frame. **N/A** any non-applicable shift.

1. REVIEW Limits and Precautions in Section 3.3.
2. OBSERVE Ultimate Heat Sink level and begin plant shutdown if required by Technical Specifications 3.7.11.
3. REFER to SP-300, Flood Control Log for recording water level.
4. CONSULT EM-202, Enclosure 1, for implementation.
5. REVIEW remainder of checklist for applicability of action item. CONSIDER changes that have occurred based on environment and plant conditions. All items should be reviewed regardless of check-off status.
6. PLACE Plant in CONDITION YELLOW

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

NOTE

The following two items are part of Checklist 1 and any actions by Operations should be coordinated with the PGM or designee for implementation.

ENSURE the release of non-essential personnel in a phased, controlled manner at the completion of Hurricane preparations or as personal circumstances dictate. Release in advance of severe weather conditions to allow them to arrive home safely and avoid undue congestion.

ENSURE arrangements are made for Operators and support staff to be transported to the plant site if plant access road becomes impassable. If required, personnel should be given time and location for pick up (approx. 6-10 hours before land fall).

		Check-Off
a.	REVIEW equipment out of service and on-going maintenance activities. RESTORE equipment needed to support reliable plant operation during the storm.	_____
b.	REVIEW Enclosure 4 for SBO equipment and ASSIGN a high priority to restoring such equipment to an operable status. [NOCS 40338,40344,40349]	_____
c.	FILL the Condensate Storage Tank (refer to OP-603) and Emergency Feedwater Tank EFT-2 (refer to OP-450) to ENSURE an ample supply of condensate is available for the duration of the storm. [NOCS 40345]	_____
d.	NOTIFY CR-1, 2, 4, 5 and coal yards and ENSURE inspection of their outside areas and storage of loose material which could threaten the reliability of CR-3 required off-site power sources. [NOCS 40342]	_____
e.	CONSIDER SUSPENDING fuel handling operations and ensuring Spent Fuel pool missile shields are in place and bolted.	_____
f.	Upon issue of a Tornado Warning, PLACE the Control Complex HVAC in Recirculation Mode. REVIEW Enclosure 1 of EM-202 for Emergency Action Levels to consider for violent weather.	_____
g.	ANNOUNCE over the public address system the severe weather condition and to maintain limited access to outside areas.	_____
h.	NOTIFY the Dispatcher to determine transmission load requirements. If the Dispatcher cannot be notified, the SSO determines the load.	_____
j.	IF the plant becomes detached from the grid, THEN do NOT attempt to close in on the grid, AND NOTIFY the Dispatcher. [NOCS 100336]	_____

j. ARRANGE to fill tanks as necessary to ensure diesel fuel oil storage tank and lube oil tank is topped off and others are adequate to accommodate a unit shutdown and startup.

	Recommended (gallons)	Actual	Order Y/N
EDG Diesel Fuel Oil Storage Tank	>23,500	_____	_____
Turbine Lube Oil Storage Tank	(topped off)	_____	_____
Fire Pump Diesel Fuel Tank	220	_____	_____
Hydrogen Tank	50-75%/full	_____	_____
Nitrogen Tanks	50-100%/full	_____	_____
Carbon Dioxide Tank	4.5 tons	_____	_____
TSC Diesel Tank	1,300	_____	_____
IAP-4 Diesel Storage Fuel Tank	400	_____	_____
Diesel Air Compressor Tank Level	full	_____	_____
EFP-3 Fuel Oil Tank	>10,000	_____	_____
FWP-7 Fuel Oil Tank	>1928	_____	_____

Check-Off

k. ENSURE adequate diesel engine and EFP-3 lube oil is available. REFER TO Enclosure 8 for amount and CAT ID Number. _____

l. PREPARE and RELEASE gas and liquid waste tanks as directed by Chemistry. _____

m. INSTALL 2 locking pins to secure the intake area gantry crane (CWCR-1) at hard stops. _____

n. CLOSE non-water tight windows and vents in Turbine and Intermediate Buildings. _____

o. Continuously OPERATE intake screens in slow speed throughout the storm. _____

p. CONSIDER leaving message for off duty operators on Operations extension of the Employee Emergency Line.
REFER TO Enclosure 7. _____

q. BRIEF operations personnel on the storm, safety precautions, expected duties, potential problems, contingencies and communication systems. _____

r. 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. _____

s. DETERMINE, if necessary, the temporary suspension of operator rounds on outside equipment during the storm. _____

t. ENSURE Work Controls designee is notified of checklist progress. _____

u. REVIEW and PERFORM applicable items from Attachment 1 of this checklist upon notification from the National Weather Service that area NO longer in Tropical Storm Watch or Warning or Hurricane Watch. _____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

Each ON-Coming Superintendent Shift Operations should read the 9 items below, initial and date as indicated. Additional pages may be made to document additional time frame. **N/A** any non-applicable shift.

1. REVIEW Limits and Precautions in Section 3.3.
2. OBSERVE Ultimate Heat Sink level and START plant shutdown if required by Technical Specifications 3.7.11.
3. REFER to SP-300, Flood Control Log for recording water level.
4. CONSULT EM-202, Enclosure 1, for implementation.
5. RECORD meteorological forecast information on Attachment 3 of this checklist, "Hurricane Warning Chronological Data Sheet" or ATTACH National Weather Service data sheet. (FSAR 2.4.2.4.1)
6. REVIEW EOP-12 with the operating crew and REPEAT the review at the beginning of each shift while the Hurricane Warning remains in effect. [NOCS 40350]
7. REVIEW Enclosure 5 and coordinate decision for plant shutdown with the PGM or designee. [NOCS 40350]
8. REVIEW remainder of checklist for applicability of action item. CONSIDER changes that have occurred based on environment and plant conditions. All items should be reviewed regardless of check-off status.
9. PLACE Plant in CONDITION YELLOW.

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

		Check-Off
a.	REPORT any unusual or abnormal condition to Work Control designee.	_____
b.	CONSIDER leaving message for off duty operators on Operations extension of the Employee Emergency Line. REFER TO Enclosure 7.	_____
c.	PERFORM functional test of EGDGs-1A and 1B (either OP-707 or SP-354A/B) to determine operability of the Emergency Diesel Generators. Do NOT load onto the grid if severe weather conditions exist. [NOCS 40347, 100336]	_____

Check-Off

d. PERFORM SP-349B to verify operability of EFP-2. [NOCS 40344] _____

e. MAINTAIN two operational shifts on-site throughout the storm. REFER TO Enclosure 6 concerning items to consider for returning personnel. _____

f. CLOSE SDV-59, floor drain from the fire pump house to the Turbine Building, to prevent flooding. _____

g. DE-ENERGIZE SDP-8A and SDP-8B, the Chemical Storage Area sump pumps, by opening their feeder breakers. SDP-8A is powered from Water Treatment MCC 3A Breaker #2A; SDP-8B is powered from Water Treatment MCC 3B Breaker #2A. _____

h. 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. _____

i. IF Ultimate Heat Sink level falls below 90 feet,
THEN MONITOR level hourly. _____

j. IF Ultimate Heat Sink level falls below 87 feet,
THEN REFER TO OP-408 for throttling RWP-2A/2B flow during hurricane blowout. _____

k. PERFORM the following AND MAINTAIN a list of equipment secured for later restoration: (Coordinate with Maintenance) _____

- REMOVE and store contents from the fire hydrant houses to the Turbine Building.
- CLOSE and SECURE fire hydrant house doors.
- VERIFY fire hose reels are accessible for use.
- CLOSE local alarm panel doors.
- SECURE compensatory hoses (if applicable).
- SECURE portable fire extinguishers.
- SECURE foam carts, fire carts, and wheeled fire extinguishers.

l. PROVIDE periodic PA announcements updating personnel of local evacuation information. _____

m. SUSPEND fuel handling operations and ensure Spent Fuel Pool missile shields are in place and bolted at least two hours before the arrival of hurricane force winds on site. _____

n. REVIEW and PERFORM applicable items from Attachment 1 of this checklist upon notification from National Weather Service that area NO longer in Hurricane Warning. If in question, REQUEST confirmation. _____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

IN ADDITION TO COMPLETION OF SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 3, 4, AND 5 HURRICANE WARNING.

a. 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. If a Category 4 or 5 Hurricane is predicted for this area, the following should be considered.

Check-Off

OPEN FSV-640 - Cross tie; AB Iso (119' AB N Corridor Ovrhd)
CLOSE FSV-22 - Yard Loop Block; Post Ind Iso Vlv (S Pump House)
CLOSE FSV-107 - AB Isolation; Post Ind Iso Vlv (SE OSB)
CLOSE FSV-105 - Yard Loop Block; Post Ind Iso Vlv (SE EDG Rm. N RCA) _____

b. ENSURE sufficient lubricating oil for Safety Related equipment is available and moved from warehouse to inside plant. _____

c. ENSURE oil tank cover for LOT-1 is secure.

d. CHECK emergency supplies, including flashlights, batteries, rope, nails, portable bedding, ventilation equipment. _____

e. CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during the storm inside of the water tight doors, prior to closing. _____

f. CLOSE EFP-3 fire service system drain valve FSV-1148. _____

g. SECURE EFP-3 watertight doors E-201, E-202, and E-203 by turning handwheel operators to close. _____

h. REVIEW and PERFORM applicable items from Attachment 1 of this checklist upon notification from National Weather Service that area no longer in Hurricane Warning. _____

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

Check-Off

a. PERFORM PA announcements updating personnel of weather status. _____

b. REVIEW EM-202 for existing applicable Emergency Action Levels. _____

c. PROVIDE message for off duty operators using the Employee Emergency Line. (REFER TO Enclosure 7.) _____

d. ESTABLISH a prioritized recovery plan ensuring CR3 is and remains in a safe shutdown condition as necessary:

1. Decay Heat Removal (and direct support) System available _____
2. Emergency Diesel Generators available _____
3. Emergency Feedwater (and steaming) System _____
4. Reactor Building Containment closure established or available _____

e. If needed:

1. RESTORE Control Complex HVAC to its normal mode of operation. _____
2. RETURN fire brigade equipment, identified in 4.4.k, to its proper location. _____
3. SECURE the intake screens if in slow speed. _____
4. OPEN SDV-59, floor drain from the fire pump house to the Turbine Building if there is sufficient room in SDT-1 or Turbine Building sump. _____
5. IF De-energized,
   THEN ENERGIZE SDP-8A and SDP-8B, the Chemical Storage Area sump pumps, by closing their feeder breakers.
   SDP-8A is powered from Water Treatment MCC 3A Breaker #2A;
   SDP-8B is powered from Water Treatment MCC 3B Breaker #2A. _____
6. REMOVE 2 locking pins on the intake area gantry crane. _____
7. IF CR-1&2's stacks have NOT fallen,
   AND the fire loop was isolated for a Category 4/5 Hurricane,
   THEN PERFORM the following. _____

___ CLOSE AND SEAL FSV-640 - Cross tie; AB Iso (119' AB N Corridor Ovrhd)
___ OPEN AND SEAL FSV-22 - Yard Loop Block; Post Ind Iso Vlv (S Pump House)
___ OPEN AND SEAL FSV-107 - AB Isolation; Post Ind Iso Vlv (SE OSB)
___ OPEN AND SEAL FSV-105 - Yard Loop Block; Post Ind Iso Vlv (SE EDG Rm. N RCA)

5.0 RECOVERY FROM VIOLENT WEATHER (Cont'd)

		Check-off
8.	RELEASE oil tank cover LOT-1.	_____
9.	OPEN EFP-3 fire service system drain valve FSV-1148.	_____
10.	DETERMINE if plant condition "YELLOW" can be restored to "GREEN".	_____

Completed by: _____ Date: _____

ATTACHMENT 2
SOURCES OF WEATHER DATA

The information on this page is part of Checklist 6, but included here for Operations information.

Expect information on approaching severe weather conditions to be available as follows:

The National Weather Service (NWS) issues warnings. The State of Florida Department of Emergency Management (DEM) issues an All Points Bulletin (APB) from State Warning Point via ESATCOM. The APB identifies areas affected by the severe weather, however ESATCOM is NOT reliable for updating storm information. The National Weather Service may be notified 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)

When the Progress Energy Distribution System Storm Center declares a major storm and implements the company's storm plan, employees will be notified by Infobulletin and through a Breaking News announcement on ProgressNet, which will refer employees to the website listed below for more information. The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407)942-9581.

To access weather information on the web, GO TO Progress Net Homepage and TYPE in: http://storm/

HURRICANE WARNING CHRONOLOGICAL DATA SHEET
[NOCS 100170] (FSAR 2.4.2.4.1)

INITIATE this log upon receipt of Citrus County being in a "Hurricane Warning" and ENTER meteorological forecast information from the National Hurricane Center in Miami, Florida every two hours while the "Hurricane Warning" is in effect for Citrus County. The National Hurricane Center can be reached at either 305-229-4470 or 305-229-4483(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. Other means of obtaining this information are identified on Attachment 2.

Date

HURRICANE WARNING FORECAST INFORMATION*

TIME	LOCATION		DIRECTION OF TRAVEL	FORWARD SPEED	HIGHEST WIND SPEED	INITIALS
	Lat.	Long.				

*A NWS printout may be substituted for the above as long as it contains the same information.

COMMENTS:

Control Room Supervisor

CHECKLIST 3A
MAINTENANCE – FACILITY SERVICES

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	INSPECT the following areas for loose materials that could become missiles when exposed to high winds/water: CR-3 Protected Area, Maintenance Fab Shop, Paint shop/Welding area, Hydrogen Farm, RVCH Storage Building and Pre-Assembly Building, and any construction area. SECURE freestanding materials or objects, or MOVE them inside buildings. [NOCS 40342]	_____
b.	PLAN for extra personnel as needed for storm preparation and implement shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel. CONSIDER leaving information for your employees on CR-3's Emergency Information line. REFER TO Enclosure 7.	_____
c.	ENSURE Work Controls designee is notified of checklist progress.	_____
d.	REFER to Nuclear Facilities Services Violent Weather Guidelines for details on preparations.	_____
e.	CHECK emergency supplies, including flashlights, batteries, lumber, rope, nails, portable bedding, ventilation equipment. ARRANGE for augmenting supplies as necessary. ESTABLISH pre-stage area.	_____
f.	REVIEW Enclosure 8 and ENSURE emergency supplies are available and SET UP inside the Protected Area.	_____
g.	ENSURE plant vehicles needed for emergency use have a full tank of fuel and are in good repair.	_____
h.	SECURE gas cylinders properly.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR ANY CATEGORY 1 OR 2 HURRICANE WARNING.

		Check-Off
a.	FUEL company vehicles.	_____
b.	PREVENT scheduling work that could breach watertight openings.	_____
c.	INSTALL flood barriers around the TSC/OSC. REFER TO Enclosure 8 for CAT ID number.	_____
d.	PLACE sandbags around non-vital battery and associated chargers, and the Main Control Complex on the 95' elevation, as directed by the Superintendent Shift Operations.	_____
e.	PLACE sandbag between Auxiliary and Turbine Buildings at 95' elevation and other areas protecting the Control Complex, as directed by the Superintendent Shift Operations.	_____
f.	STORE extra gasoline and oil for emergency use before the storm strikes.	_____
g.	ENSURE adequate de-watering pumps and hoses, drain plugs, and sandbags are available and pre-staged. (FSAR 2.4.2.4)	_____
h.	SET UP sandbags at Security Operations Center.	_____
i.	CONSIDER moving emergency repair tools/equipment and supplies that might be needed during the storm inside of the water tight doors, prior to closing.	_____
j.	PROVIDE meals Ready-To-Eat and eating utensils, as needed.	_____
k.	PROVIDE sufficient air mattresses and blankets. SET UP a system for controlled issue and return.	_____
l.	MAINTAIN adequate medical supplies on hand, such as aspirin, cold medicine, stomach tablets, and other household medications.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

IN ADDITION TO COMPLETION OF SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 3, 4, OR 5 HURRICANE WARNING.

a.	NOTIFY Records Management prior to performing item "b" to service to ensure they inspect inside TSC vault.	_____
b.	SEAL (caulk) completely around the two doors leading to the TSC document vault for added flood protection.	_____

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

		Check-Off
a.	REQUEST return of air mattresses and blankets distributed under 4.4.k	_____
b.	REMOVE flood barriers placed around TSC/OSC.	_____
c.	REMOVE sandbags established by Section 4.3.	_____
d.	ARRRANGE to have pre-staged emergency supplies identified in Section 4.3.f. returned to pre-storm status.	_____

Completed by:_____ Date:_____

CHECKLIST 3B
MAINTENANCE – MECHANICS

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	PLAN for extra personnel as needed for storm preparation and implement shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel CONSIDER leaving information for your staff on CR-3's Emergency Information line. REFER TO Enclosure 7.	_____
b.	OBTAIN drawings for water tight doors as identified in Section 4.4.	_____
c.	INSPECT the Intake area for loose materials that could become missiles when exposed to high winds/water. SECURE freestanding materials or objects, or MOVE them inside buildings.	_____
d.	ENSURE Work Controls designee is notified of checklist progress.	_____
e.	SET UP a supply of roughing pre-filter pads into the plant to provide two changes of EDG ventilation filters. (REFER TO Enclosure 8 for CAT ID numbers.)	_____
f.	SET UP additional EFP-3 filters in the EFP-3 building. REFER TO Enclosure 8 for CAT ID numbers.	_____
g.	SECURE water craft at Intake.	_____
h.	IF the RB permanent equipment hatch (RAX-3) and the RB equipment access shield structure removable wall sections are NOT in place, THEN VERIFY the availability of necessary equipment (e.g., crane) as required.	_____
i.	INSPECT for loose debris and CLEAR drains on building roofs.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

Check-Off

a. 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. CLOSE equipment, piping, or manways open for maintenance that could result in plant flooding at high tides. _____

_____

_____

_____

b. ATTACH bracing to close and barricade large roll-up doors as applicable. _____

c. INSTALL cover plates and strong backs where piping is open and susceptible to flooding. _____

d. CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during the storm inside of the water tight doors, prior to closing.

> **NOTE**
>
> The watertight door between the Machine Shop and the plant should be closed last.

e. IF water level of Gulf exceeds 98' at intake,
THEN CLOSE and SECURE the watertight doors (including the RB permanent Equipment Hatch (RAX-3) and flood gates identified on drawings within two hours. [NOCS 100170] (FSAR 2.4.2.4.1)

FOLLOW the Instructions Notes on each drawing for proper seal installation. 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

_____

f. VERIFY the six flap valves (SDV-67, SDV-168, SDV-169, SDV-170, and at the TSC - SDV-182 and SDV-183) are operable and closed and NOT obstructed by labeling, stanchions, debris, or equipment. _____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2) (Cont'd)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

Check-Off

g. INFLATE seals to 40-50 PSI. REFER TO the drawings and mechanical PM model 220304, as required. _____

h. ENSURE the access plugs in the Nuclear Services Sea Water Room ceiling are secure and sealed. REFER TO drawing SC-403-310, Detail A and Sections 12-12/13-13. _____

i. IF the RB equipment access shield structure removable wall sections are NOT in place,
THEN INSTALL as determined necessary for flood and missile protection. REFER TO CR3 drawings SC-421-043 and SC-421-047. (FSAR 1.9.7) _____

j. INSTALL the 18 inch hinged extension plate hanging on the outside of EGDG-1A and EGDG-1B missile shield (MRG-1) by performing the following:

1. UNSCREW nuts holding extension plate to MRG-1.
2. LIFT the extension plate into place above MRG-1, and ENSURE gasket seals.
3. SECURE with attached bolts to the attached studs on MRG-1. _____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional items are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

a. REVIEW Section 4.4 and RESTORE all watertight doors, cover plates, bracing, and extension plates to pre-storm condition. _____

Completed by: _____ Date _____

CHECKLIST 3C
MAINTENANCE – ELECTRICAL

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	PLAN for extra personnel as needed for storm preparation and IMPLEMENT shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel. CONSIDER leaving information for your staff on CR-3's Emergency Information line. REFER TO Enclosure 7.	_____
b.	CHECK sump pump operation on cable tray at east end of Discharge Canal and PROVIDE sump pump for 500 KV switchyard cable house.	_____
c.	ENSURE Work Control designee is notified of checklist progress.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a.	CHECK the CR-3 station batteries to determine if an equalizing charge is needed to increase battery capacity. [NOCS 40346]	_____
b.	SECURE electrical service to temporary facilities. Securely CLOSE doors to plant transformer control panels and outdoor electrical cabinets.	_____
c.	EVALUATE the need to de-energize electrical power supplies identified in Enclosure 2, based on rising water levels.	_____
d.	CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during the storm inside of the water tight doors, prior to closing.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions.

a. REVIEW Enclosure 2 and safely RESTORE electrical power, as conditions warrant, disconnected during storm preparations. _____

Completed by: _____ Date: _____

CHECKLIST 3D
MAINTENANCE – I & C

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

Check-Off

a. PLAN for extra personnel as needed for storm preparation and IMPLEMENT shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel. CONSIDER leaving information for your staff on CR-3's Emergency Information line. REFER TO Enclosure 7. _____

b. ENSURE Work Control designee is notified of checklist progress. _____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a. CONSIDER moving any emergency repair tools/equipment and supplies that might be needed during the storm inside of the water tight doors, prior to closing. _____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional actions are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions.

a. RESTORE equipment, as needed to pre-storm conditions. _____

Completed by: _____ Date: _____

CHECKLIST 4A
RADIATION PROTECTION

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	PLAN for extra personnel as needed for storm preparation and IMPLEMENT shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel. CONSIDER leaving information for your employees on CR-3's Emergency Information line. REFER TO Enclosure 7.	_____
b.	INSPECT outside areas for radioactive materials and STORE them inside, or PROTECT them from severe weather as necessary. This includes contaminated material stored in containers on the berm or in sheet metal buildings. It also includes the 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 provide help with radiography equipment.)	_____
c.	ENSURE Work Control designee is notified of checklist progress	_____
d.	CONSIDER canceling rad material/waste shipments in progress or scheduled.	_____
e.	REMOVE loose information postings.	_____
f.	DETERMINE dosimetry needs of personnel and issue if needed.	_____
g.	ENSURE hazardous materials properly stored and protected.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

	Check-Off
a. ENSURE available self-contained breathing apparatus (SCBA) cylinders have been charged.	_____
b. INSTALL the cargo net over the roll up door at the oil tank containing Radioactive Material storage. LOCK the doors and SECURE as appropriate electrical supplies and louvers.	_____
c. SECURE electrical service.	_____
d. CONSIDER sandbagging entrance to oil tank.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional actions are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

a. DISPATCH survey teams as necessary to survey the site to ensure integrity of radiological postings/barriers and radioactive material containers, inventory and storage areas.	_____
b. RESTORE the integrity of radiological postings/barriers and radioactive material containers, inventory and storage areas.	_____
c. REMOVE and RESTORE the cargo net from over the roll up door at the oil tank containing Radioactive Material storage.	_____

Completed by: _____ Date: _____

CHECKLIST 4B
ENVIRONMENTAL & CHEMISTRY

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	PLAN for extra personnel as needed for storm preparation and IMPLEMENT shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel. CONSIDER leaving information for your employees on CR-3's Emergency Information line. REFER TO Enclosure 7.	_____
b.	ENSURE Work Control designee is notified of checklist progress.	_____
c.	INVENTORY laboratory reagents and supplies and OBTAIN as necessary.	_____
d.	ENSURE adequate inventories of condensate resin, oxygen-scavenging and pH control chemicals, i.e., hydrazine, morpholine, lithium hydroxide, boric acid, are available and in the plant.	_____
e.	EVALUATE liquid and gaseous radwaste inventories and RECOMMEND releases to Operations as necessary.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a.	TERMINATE radioactive release permits at least 2 hours before the arrival of hurricane force winds on-site.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional actions are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

No additional actions are required for this section.

CHECKLIST 5
SECURITY

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

	Check-Off
a. DEVELOP Security Force Staffing Projections and NOTIFY off-duty personnel, as needed.	_____
b. NOTIFY the Security Force that any visible sightings of a tornado should be immediately reported to the Control Room and Security Shift Supervisor.	_____
c. FILL fuel tanks of Security vehicles and MOVE to high ground.	_____
d. ENSURE EMT coverage is provided.	_____
e. REVIEW the Safeguard Contingency Plan and SS-206.	_____
f. Based on events, be prepared to:	_____
- ESTABLISH Security command post at CAS, or Control Complex.	_____
- MEET with EC or PGM designee to determine suspension of safeguards.	_____
- CONDUCT Protected Area accountability.	_____
g. IF safeguards are suspended, THEN:	
- NOTIFY NRC in accordance with SEC-NGGC-2147.	_____
- AND STOP outside patrols.	_____
- AND TRANSFER outside patrol functions to inside patrols on the interior of the Control Complex, Intermediate, Auxiliary, and Turbine Buildings as needed. USE CCTV systems if available	_____
h. TEST Local Law Enforcement Agency radio.	_____
i. ENSURE Work Controls designee is notified of checklist progress.	_____

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES) (CONT'D)

		Check-Off
j.	EVALUATE the need to unplug, roll-up and store any extension cords that may be connected to Security shelters.	_____
k.	EVALUATE the need to unplug and store any temporary Security lights that may be in service.	_____
l.	VERIFY with Nuclear Facility Services that the Nuclear Security Operations Center is scheduled for sandbag placement.	_____
m.	DETERMINE where employees can leave vehicles and time they should be there for pickup to be brought to site for storm duration (approx. 6-10 hours before land fall). This location should be outside of the affected area (dependent on storm prediction). NOTIFY Supervisors of this decision.	_____
n.	NOTIFY personnel who may be at the Nuclear Security Ralston Purina (NSRP) of the event, if possible.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a.	LIMIT outside functions.	_____
b.	CONDUCT Protected Area accountability as needed.	_____
c.	ENSURE all previous actions are completed and also INCREASE frequency of communication tests with Local Law Enforcement Agency.	_____
d.	Based on hurricane events, PREPARE to:	_____
	- ESTABLISH the Security command post at CAS or Control Complex.	_____
	- MEET with EC or PGM designee and discuss suspending safeguards.	_____
	- CONDUCT and UPDATE Protected Area accountability.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2) (Cont'd)

Check-Off

e. IF safeguards are suspended,
THEN:

- NOTIFY NRC in accordance with SEC-NGGC-2147. _____
- TERMINATE all outside Security activities. _____
- MOVE all Security functions to interior plant areas. _____

f. INFORM EC or PGM Work Controls designee of actions. _____

g. CONSIDER additional EMT availability _____

h. DISCUSS and COORDINATE with appropriate personnel: _____

- CONSIDER having markers installed along access road to mark roadway. _____
- CONSIDER having personal vehicles moved from the CR-3 parking lot and reserved parking area to the Site Administration Building or end of access road when water levels are projected to rise past 96 feet (4 feet above normal high tides). _____
- CONSIDER staging a high ground clearance vehicle in a location that helps the shuttling of personnel in and out of the site. CONSIDER use of coal yard locomotive. _____

i. SECURE items and personnel at NSRP. _____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

IN ADDITION TO COMPLETION OF SECTION 4.3 AND 4.4 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 3, 4, OR 5 HURRICANE WARNING.

a. SECURE perimeter fence spiked jacks. _____

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

		Check-Off
a.	ESTABLISH Security safeguards and systems.	_____
b.	RESTORE any temporary Security lights that were secured during storm.	_____
c.	RESTORE extension cords connected to Security shelters, as needed.	_____
d.	NOTIFY NRC Region II Safeguards Branch of status change, once safeguards are re-established.	_____

Completed by: _____ Date: _____

CHECKLIST 6
COMMUNICATIONS

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

Check-Off

a. VERIFY operability and availability of the following communication equipment: _____

- Florida Emergency Satellite (ESATCOM)
- State Hot Ringdown System (SHRD)
- Local Government Radio (LGR)
- Satellite phones located in TSC

b. 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 _____

c. IF TSC/OSC is evacuated or NOT assessable, THEN MOVE Local Government Radio from TSC to SSO office outside Control Room. _____

d. MAINTAIN contact with NRC as requested on ENS, or NOTIFY Accident Assessment for NRC Communicator. _____

e. MAINTAIN a log of Off-site communication activities _____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a. REVIEW Violent Weather Volunteer List and IDENTIFY engineers staying on-site during storm. (REFER TO Enclosure 6, Group 2 information.) _____

b. SETUP and TEST the satellite phone in the TSC to ensure operation. _____

Check-Off

c. ESTABLISH storm coordinates as requested. (Enclosure 9)

Reliable information on approaching severe weather conditions is available as follows: [NOCS 100390]

The National Weather Service (NWS) issues warnings. The State of Florida Department of Emergency Management (DEM) issues an All Points Bulletin (APB) from State Warning Point via ESATCOM. The APB identifies areas affected by the severe weather, however ESATCOM is NOT reliable for updating storm information. The National Weather Service may be notified 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)

When the Progress Energy Distribution System Storm Center declares a major storm and implements the company's storm plan, employees will be notified by Infobulletin and through a Breaking News announcement on ProgressNet, which will refer employees to the website listed below for more information The Florida Distribution System Storm Center phone number is VoiceNet 280-2581 or (407)942-9581.

To access weather information on the web, go to Progress Net Homepage and type in: http://storm/ _____

4.5 HURRICANE WARNING (CATEGORY 3, 4 AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.
No additional actions are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions:

a. NOTIFY Telecommunications, as needed, to request use of spare antennas and portable generators to be used for Load Management, low band radio, LGR and ESATCOM. _____

b. ESTABLISH reliable external communications. _____

Completed by: _____ Date: _____

CHECKLIST 7
NUCLEAR WAREHOUSE

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING, OR HURRICANE WATCH.

		Check-Off
a.	PLAN for extra personnel as needed for storm preparation and IMPLEMENT shift schedules for preparation and storm duration. REFER TO Enclosure 6 concerning items to consider for returning personnel.	_____
b.	REVIEW Enclosure 8 to ensure Maintenance has adequate supplies available in the Cold Tool Crib.	_____
c.	DETERMINE if portable toilets need to be brought on site. A Category 3,4,5 hurricane would warrant this action. NOTIFY Purchasing to procure as needed.	_____
d.	INSPECT areas located outside the security fence and SECURE loose materials and/or debris that could become missiles when exposed to high winds or high water. INCLUDE as a minimum: CR-3 warehouse area, Fitness Center, including Low-Rad Storage Facility, laydown areas, Cafeteria and Conference Center, and storage yards. [NOCS 40342]	_____
e.	CONSIDER ordering additional water for Category 3,4,5 hurricane.	_____

4.4 HURRICANE WARNING (CATEGORY 1 and 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

CAUTION

Do NOT place lube oil drums on floor grating.

a.	ENSURE ten (10) additional EFP-3 air intake filters and two (2) EFP-3 fuel filters are re-allocated and MOVED to EFP-3 building. See Enclosure 8 for CAT ID numbers.	_____
b.	ENSURE four (4) EGDG fuel filters are re-allocated and MOVED to 119' Turbine Building. See Enclosure 8 for CAT ID numbers.	_____
c.	ENSURE six 55 gallon drums of diesel lube oil and four 55 gallon drums of EFP-3 lube oil are MOVED to 119' Turbine Building. See Enclosure 8 for CAT ID numbers.	_____
d.	ENSURE ventilation doors on the oil tank are closed.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

IN ADDITION TO COMPLETION OF SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR ANY CATEGORY 3, 4, OR 5 HURRICANE WARNING.

Check-Off

a. Upon issue of a Category 3, 4, or 5 Hurricane Warning, PROTECT (e.g., wrap, elevate, move) spare motors and other parts and tools required for recovery, or which are valuable or hard to replace. _____

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions.

a. ENSURE Enclosure 8 supplies assigned to the Warehouse are restored and consumables reordered as needed. _____

b. RETURN portable toilets ordered for hurricane preparations. _____

c. RESTORE items identified in Section 4.4 and 4.5 to pre-hurricane status. _____

Completed by: _____ Date: _____

CHECKLIST 8
COUNTY/STATE/NRC LIAISON

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR A CITRUS COUNTY TROPICAL STORM WATCH OR WARNING OR HURRICANE WATCH.

		Check-Off
a.	NOTIFY EOF Facility Manager and REQUEST EOF preparations for storm.	_____
b.	ARRANGE to obtain hand-held radios and cellular phone from Citrus County Sheriff's Office (CCSO) prior to storm landfall.	_____
c.	NOTIFY CCSO that emergency workers are to display picture ID for identification.	_____
d.	ENSURE TSC and EOF diesel status satisfactory.	_____
e.	ENSURE Work Control designee is notified of checklist progress.	_____
f.	NOTIFY Supervisor Communications and Information Technology that the Violent Weather Committee has convened.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR A CITRUS COUNTY CATEGORY 1 OR 2 HURRICANE WARNING.

a.	PROVIDE information on school closing, resident evacuation and UPDATE the Emergency Information Line for CR-3 employees as appropriate.	_____
b.	DISTRIBUTE current Violent Weather Volunteer List at Violent Weather Meeting.	_____
c.	PROVIDE frequent 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.	SEND CR3 representative to State and County EOCs if the NRC has sent a representative.	_____
e.	ESTABLISH provisions for two to three NRC Site Team members. MAINTAIN contact with NRC Site Team Leader.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2) (Cont'd)

Check-Off

f. PROVIDE State and local agencies with meteorological data as requested. _____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional actions are required for this section.

5.0 RECOVERY FROM VIOLENT WEATHER

PERFORM the following as needed to restore to pre-storm conditions.

a. UPDATE Emergency Information Line when the event is over. _____

b. RETURN radios and phones obtained from Citrus County. _____

c. COORDINATE with Licensing for FEMA NRC capability assessment. Guidance provided in Violent Weather Manual maintained in TSC Emergency Preparedness office. _____

Completed by: _____ Date: _____

CHECKLIST 9
WORK CONTROLS/SCHEDULING

4.3 TROPICAL STORM WATCH AND WARNING OR HURRICANE WATCH (ALL CATEGORIES)

THIS SECTION SHOULD BE COMPLETED FOR ANY TROPICAL STORM WATCH OR WARNING OR HURRICANE WATCH.

		Check-Off
a.	INSPECT the substation switchyard areas for loose materials that could become missiles when exposed to high winds/water. SECURE as necessary. [NOCS 40342]	_____
b.	Work Week Manager is to VERIFY Maintenance has completed necessary storm preparations and turned in completion notifications.	_____
c.	ENSURE Work Control designee is notified of checklist progress.	_____

4.4 HURRICANE WARNING (CATEGORY 1 AND 2)

IN ADDITION TO COMPLETION OF SECTION 4.3 OF THIS CHECKLIST, COMPLETE SECTION BELOW FOR ANY CATEGORY 1 OR 2 HURRICANE WARNING.

a.	REVIEW surveillance schedules (refer to SP-443) and DETERMINE whether the surveillance, if permitted by Technical Specifications, can be performed early or delayed until the storm has passed. [NOCS 40344]	_____
b.	REVIEW the work activities in the plant with openings that could cause flooding in the 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.	_____

4.5 HURRICANE WARNING (CATEGORY 3, 4, AND 5)

COMPLETE SECTIONS 4.3 AND 4.4 OF THIS CHECKLIST.

No additional actions are required for this section.

4.6 RECOVERY FROM VIOLENT WEATHER

No additional actions are required for this section.

LIST OF STATION BLACKOUT EQUIPMENT TO BE VERIFIED OPERABLE/FUNCTIONAL

[NOCS 40344, 40349, 40588]

Pumps/Tanks

CDT-1	CONDENSATE STORAGE TANK
EFP-2	TURBINE-DRIVEN EMERGENCY FEEDWATER (EF) PUMP
EFP-3	DIESEL-DRIVEN EMERGENCY FEEDWATER PUMP
EFT-2	EMERGENCY FEEDWATER TANK
FWP-7	AUXILIARY FEEDWATER PUMP
NGT-1	NORTH LOW PRESSURE NITROGEN TANK
NGT-2	SOUTH LOW PRESSURE NITROGEN TANK
TBP-2	TURBINE GENERATOR BEARING OIL PUMP

Valves

ASV-204	TURBINE-DRIVEN EF PUMP STEAM ISOLATION VALVE
ASV-5	TURBINE-DRIVEN EF PUMP STEAM ISOLATION VALVE
DHV-41	DH DROPLINE ISO
DHV-42	RB SUMP TO DHP-1A SUCTION ISO
DHV-43	RB SUMP TO DHP-1B SUCTION ISO
EFV-11	EMERGENCY FEEDWATER BLOCK VALVE
EFV-14	EMERGENCY FEEDWATER BLOCK VALVE
EFV-32	EMERGENCY FEEDWATER BLOCK VALVE
EFV-33	EMERGENCY FEEDWATER BLOCK VALVE
EFV-55	EMERGENCY FEEDWATER CONTROL VALVE
EFV-56	EMERGENCY FEEDWATER CONTROL VALVE
EFV-57	EMERGENCY FEEDWATER CONTROL VALVE
EFV-58	EMERGENCY FEEDWATER CONTROL VALVE
FWV-216	FWP-7 FLOW CONTROL TO RCSG-1A
FWV-217	FWP-7 FLOW CONTROL TO RCSG-1B
GGV-213	H2 SUPPLY TO CONTROLLER
GGV-220	GENERATOR GAS MANIFOLD INLET ISO
GGV-232	GENERATOR VENT
GGV-233	CARBON DIOXIDE FEED LINE ISO
GGV-234	CARBON DIOXIDE ISO
GGV-274	VENT ISO
HYV-28	H2 SUPPLY TO GENERATOR
IAV-372	INSTRUMENT AIR CHECK VALVE
IAV-373	INSTRUMENT AIR CHECK VALVE
IAV-663	ATMOSPHERE DUMP BACKUP AIR SUPPLY REGULATOR
IAV-672	ATMOSPHERE DUMP BACKUP AIR SUPPLY REGULATOR
IAV-676	ADV BACKUP AIR SUPPLY ISO
MSV-25	MAIN STEAM ATMOSPHERIC DUMP VALVE
MSV-26	MAIN STEAM ATMOSPHERIC DUMP VALVE
MSV-411	MN STM LINE A-2 (RCSG-1A) BLOCK
MSV-412	MN STM LINE A-1 (RCSG-1A) BLOCK
MSV-413	MN STM LINE B-1 (RCSG-1B) BLOCK
MSV-414	MN STM LINE B-2 (RCSG-1B) BLOCK
MSV-55	MAIN STEAM ISOLATION VALVE
MSV-56	MAIN STEAM ISOLATION VALVE

Valves (cont)

MUV-253	RCPS TO MUHE-2A & MUHE-2B ISOLATION
MUV-49	MUHE-1A & MUHE-1B TO BLOCK ORIFICE ISOLATION
NGV-260	LP N2 TANK (NORTH) ISO
NGV-261	LP N2 TANK (SOUTH) ISO
NGV-325	NG TO GG CROSS-TIE ROOT ISO
NGV-326	NG TO GG CROSS-TIE ISO

Instrumentation

EF-23-FT	EMERGENCY FEEDWATER FLOW TRANSMITTER
EF-24-FT	EMERGENCY FEEDWATER FLOW TRANSMITTER
EF-25-FT	EMERGENCY FEEDWATER FLOW TRANSMITTER
EF-26-FT	EMERGENCY FEEDWATER FLOW TRANSMITTER
EFV-55	CONTROLLER
EFV-56	CONTROLLER
EFV-57	CONTROLLER
EFV-58	CONTROLLER
FW-367-FI	AUX FEEDWATER FLOW INDICATION
FW-368-FI	AUX FEEDWATER FLOW INDICATION
MS-106-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-107-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-108-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-109-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-110-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-111-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-112-PT	MAIN STEAM PRESSURE TRANSMITTER
MS-113-PT	MAIN STEAM PRESSURE TRANSMITTER
NG-97-LI	NGT-2 LEVEL
NG-98-LI	NGT-1 LEVEL
SP-17-LT	LEVEL TRANSMITTER
SP-18-LT	LEVEL TRANSMITTER
SP-19-LT	LEVEL TRANSMITTER
SP-20-LT	LEVEL TRANSMITTER
SP-21-LT	LEVEL TRANSMITTER
SP-22-LT	LEVEL TRANSMITTER
SP-23-LT	LEVEL TRANSMITTER
SP-24-LT	LEVEL TRANSMITTER
SP-25-LT	LEVEL TRANSMITTER
SP-26-LT	LEVEL TRANSMITTER
SP-27-LT	LEVEL TRANSMITTER
SP-28-LT	LEVEL TRANSMITTER
SP-29-LT	LEVEL TRANSMITTER
SP-30-LT	LEVEL TRANSMITTER
SP-31-LT	LEVEL TRANSMITTER
SP-32-LT	LEVEL TRANSMITTER
TB-156-PI	HYDROGEN MANIFOLD LOW PRESSURE

Electrical

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
VBIT-1A	INVERTER 3A
VBIT-1B	INVERTER 3B
VBIT-1C	INVERTER 3C
VBIT-1D	INVERTER 3D
RR3A	AUX RELAY RACK 3A
RR5B1	EMERGENCY FEEDWATER CONTROL RELAY RACK
RR5B2	EMERGENCY FEEDWATER CONTROL RELAY RACK

Diesels

MTDG-1	FWP-7 DIESEL
EGDG-1A	
EGDG-1B	

DECISION MATRIX FOR PLANT SHUTDOWN DUE TO VIOLENT WEATHER
[NOCS 40350, 100170]

The following questions are to be used in determining when to shut down the plant during violent weather. An answer of "Yes" to either of these questions is an indication that the plant be placed in mode 3 or below before the condition addressed in the question applies.

				YES	NO
Is UHS level expected to exceed 98'?					
TIME/DATE	___/___	___/___	___/___		
UHS LEVEL	_____	_____	_____		
STORM SURGE	_____	_____	_____		
EXPECTED UHS LEVEL	_____	_____	_____		
Is a Category 3 (110-130 MPH) or greater hurricane forecast to strike the Crystal River area?					

If neither of the above situations is likely, shutdown considerations and the decision to take Protective Actions is based on the significance of the threat of the storm to CR-3 by considering possibility of wind damage, loss of off-site power and radical tide changes. CONSIDER the following conditions:

- the ability of CR-3 to continue operations in a stable manner
- availability of normal and emergency equipment to support normal operation, anticipated transients, and accident conditions
- storm intensity, movement (speed and direction), and forecast changes
- status of the electrical distribution grid as determined by discussions with the Energy Control Center and Site Fossil Units [SOER 99-1]
- tidal conditions: forecast maximum and minimum and likelihood of UHS level remaining above 79' when winds are from the East (blowout conditions)
- ability to sustain natural circulation capability
- urgency of the need for power from CR-3 to maintain service to customers

If the reactor is in Mode 1 when the decision to shutdown is made, ENSURE shutdown begins early enough such that the reactor is in Mode 3 or below when the violent weather strikes the site. USE the following guidelines when developing a shutdown strategy:

Mode 1 (100%) > Mode 3 @ 2%/min – 2 hours
Mode 3 > Mode 5 – 14 to 16 hours

As an additional precaution, the 4160V ES busses should be placed on the emergency power supply before grid stability is threatened. [NOCS 100336, 100388]

EMPLOYEE CONSIDERATIONS BEFORE, DURING AND AFTER STORM

(Provided for Everyone's review)

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.

NOTE

The most current list of the Violent Weather Volunteer list is found on the Emergency Preparedness Web page located at: http://progressnet/cr3/CR3_support/cr3_ep/index.cfm

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 Volunteer list) returning to site approximately 6-10 hours before landfall and remaining on site during storm. This should be implemented when Citrus County is in a Hurricane Warning.

GROUP 3 - Storm Recovery Crew – Individuals from Group 1 and from the Violent Weather Volunteer list NOT chosen as Group 2.

SUPERVISOR ACTIONS/DECISIONS TO BE MADE PRIOR TO BRIEFINGS:

GROUP 1 - Storm Preparation Crews should NOT be the same as group 2. Once Group 2 is decided upon, preparation crews should report as scheduled for at least two shifts, dependent on preparations needed and time before landfall. Ideally, group 1 would be home 6-10 hours before landfall.

GROUP 2 - DETERMINE who is needed on site during storm. These people should be chosen from the Violent Weather Volunteer list and limited to the number designated below:

STAFFING LEVELS

Security	18-24	Warehouse	1
Engineering	3	Maintenance	10
Operations	18	Management/TSC	6 (TSC on-call or designee)
Chemistry	3	Emerg. Preparedness	1
Rad.Protection/Waste	4		

DETERMINE the location pre-designated by Security and VERIFY the time these employees can leave their cars and be picked up if they need a ride to site prior to the storm. (Personal cars should NOT be on site during storm.)

TOPICS TO DISCUSS AT BRIEFINGS:

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

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

NOTE

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

In addition to safety meetings, the following should be discussed with:

GROUP 2 –

- Allow Group 2 to go home and ensure the safety of their homes and families before returning to the site at a pre-designated time (approximately 6-10 hours before storm). Remind them to establish how their families can be reached after the storm.

- Notify them of the time/location they will be picked up if they can't get ride to work.

- 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.

- Notify them that 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
  - CR-3 Badge to show Sheriff's Office when traveling to site
  - change of clothes

- Provide CR-3's Emergency Information Phone number (563-4987) and inform them departmental scheduling information and other storm information may be available to them on these numbers if they cannot obtain this information by other means.

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. If the storm is severe and communications are NOT functioning at the plant, or travel to the plant is hazardous, employees may go to the Inverness Business Office for instructions no sooner than the following day or as soon as possible (dictated by Citrus County Sheriff's Office and personal abilities).

CR-3 EMERGENCY INFORMATION LINE
(Provided for everyone's review)

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.

If the storm makes a direct hit on Citrus County, nonessential personnel should be told NOT to report to work, but to take care of personal needs and call plant when phone lines permit.

If there is no direct hit on Citrus County, Employees should listen to local radio stations for local closings and road access information. They should report as scheduled unless information on the radio says differently.

Local information is also available through Citrus County Department of Emergency Management.

Employees may use the emergency information line to check on schedule information as designated by supervisors for departments listed on emergency line, if their normal means of getting this information is NOT available to them.

HOW TO SET UP OR CHANGE A MESSAGE ON THE EMERGENCY INFORMATION LINE

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

These are voice-mail numbers in which Supervisors can leave messages. To set up or change a message PERFORM the following.

1) Call 563-4987 or ext. 4987

2) While the opening message is being heard, Dial 9 and the extension above to be changed, e.g., 9-4227 to change setup message for Maintenance; 9-4229 to change setup message for ChemRad, etc.

3) Do NOT leave a message when voice mail asks "Would you like to leave any messages." Wait until asked, "Would you like to access your set-up options," press 1. When it asks, "Would you like to change your personal greeting," press 1 and leave the message to be heard by your employees when they call.

To retrieve the information or to verify your new message, call 563-4987 and follow the directions.

The individual posting message must remove message from Information Line when no longer applicable.

VIOLENT WEATHER SUPPLIES
[NOCS 100388]

	Item	CAT ID	Quantity
OPERATIONS	**(Located in Oil Tank)**		
	EGDG Diesel Engine Lube Oil	61430451	330 gal
	EFP Lube Oil	1430376	220 gal
MAINTENANCE	**(Located at 293 Stores Tank and Yard)**		
	- TSC Aluminum Flood Barrier Protection	9220100499	
	- Lumber hurricane 2" x 4" x 12'	01380701	75
	- Plywood 4' x 8' x ¾"	01380714	50
	(Located inside Protected Area)		
	- Sandbags (filled) 12" x 20"	01100521	500
STORES	**(Re-allocate to violent weather supplies)**		
	Filter (EGDG fuel)	62720211	4
	Filter (EFP-3 fuel)	68880111	2
	Filter (EFP-3 air intake)	62640749	10

VIOLENT WEATHER SUPPLIES

MAINTENANCE (Located at Cold Tool Crib)

Item	CAT ID	Quantity
Shovel-RP Fiberglass Handle 48"	01390949	6
Shovel-Sq.Pt. 5'	01390948	6
Flashlight, 2 cell	00431204	50
Rope P/D Blend 3/8"	00432173	1
Rope P/D Blend ½"	00432174	1
Boots Steel Toe 8 snugleg	01035185	15
Boots Steel Toe 9 snugleg	01035187	50
Boots Steel Toe 10 snugleg	01035189	25
Boots Steel Toe 11 snug leg	01035191	25
Rainsuit, 2 pc jacket/hood/overhauls, S	01036766	15
Rainsuit, 2 pc jacket/hood/overhauls, M	01036767	50
Rainsuit, 2 pc jacket/hood/overhauls, L	01036768	25
Rainsuit, 2 pc jacket/hood/overhauls, X	01036769	10
Sandbag polypro, 20" x 36"	01036890	500
Sandbag burlap, 12" x 20"	01100519	1,000
Tape Duct 2"	01037350	500
Spray Waterproof Ignition	01260277	40
Battery, Carbon Zinc D Flashlight	00431104	200
Wire tie 9" 100 lb.	01461973	1
Chain Fall 4TN CM		2
Filter Poly (Ventilation)	60200237	75
Filter Poly (Engine)	65321197	32
Filter (EFP-3 air intake)	62640749	2
Pin Shear Alarm Device	61541691	35
Gatoraid (Orange)	01700343	cases 12
Gatoraid (Lime)	01700344	cases 12

FOOD AND SUPPLIES (Located at Cold Tool Crib)

MREs Ready to Eat	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

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

MEDICAL SUPPLIES (Located at Cold Tool Crib)

Maintain the following over-the-counter items for distribution during emergencies; substitutions are acceptable:

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

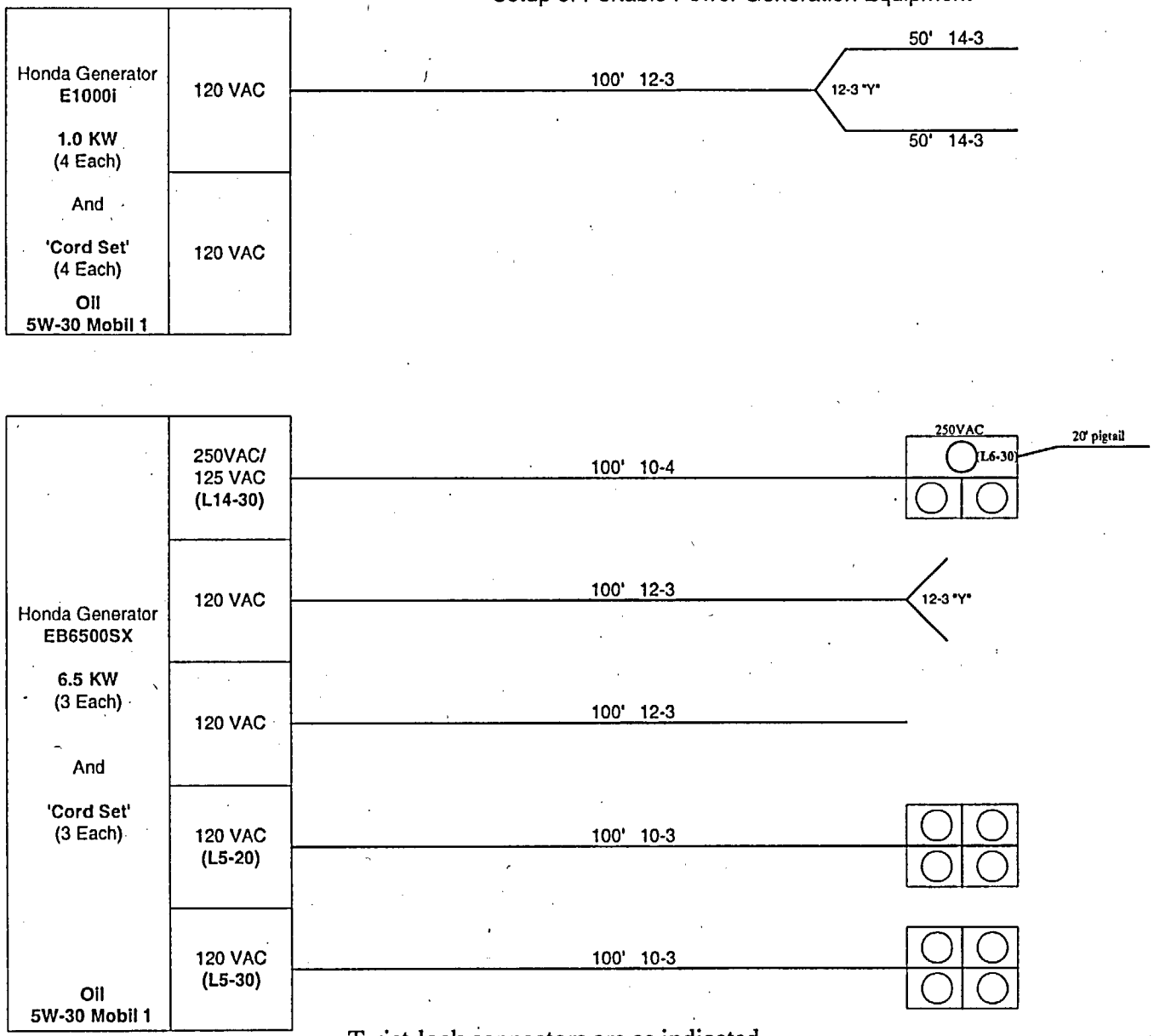
VIOLENT WEATHER SUPPLIES

Portable Power Generation Equipment
(Refer to page 5 of this Enclosure for setup of this equipment as needed)
Located at 293 Warehouse

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
		28 gallon roll-around gal tank with hand pump	**1700059**	1
		Portable Lighting – 150-watt halogen	**1700060**	14
		Portable Lighting – 500-watt halogen	**1700061**	4
SureCharge		Auto shutoff battery charger (for Honda Generator EB6500SX) With 2 Jumper cables to charge 3 batteries at once	**1700062**	1
		Batteries (for Honda Generator EB6500SX)	**1700063**	3
		Power Cord 50' of 14-3 conductor	**1700064**	8

VIOLENT WEATHER SUPPLIES

Setup of Portable Power Generation Equipment



Twist-lock connectors are as indicated

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

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

HURRICANE TRACKING CHART

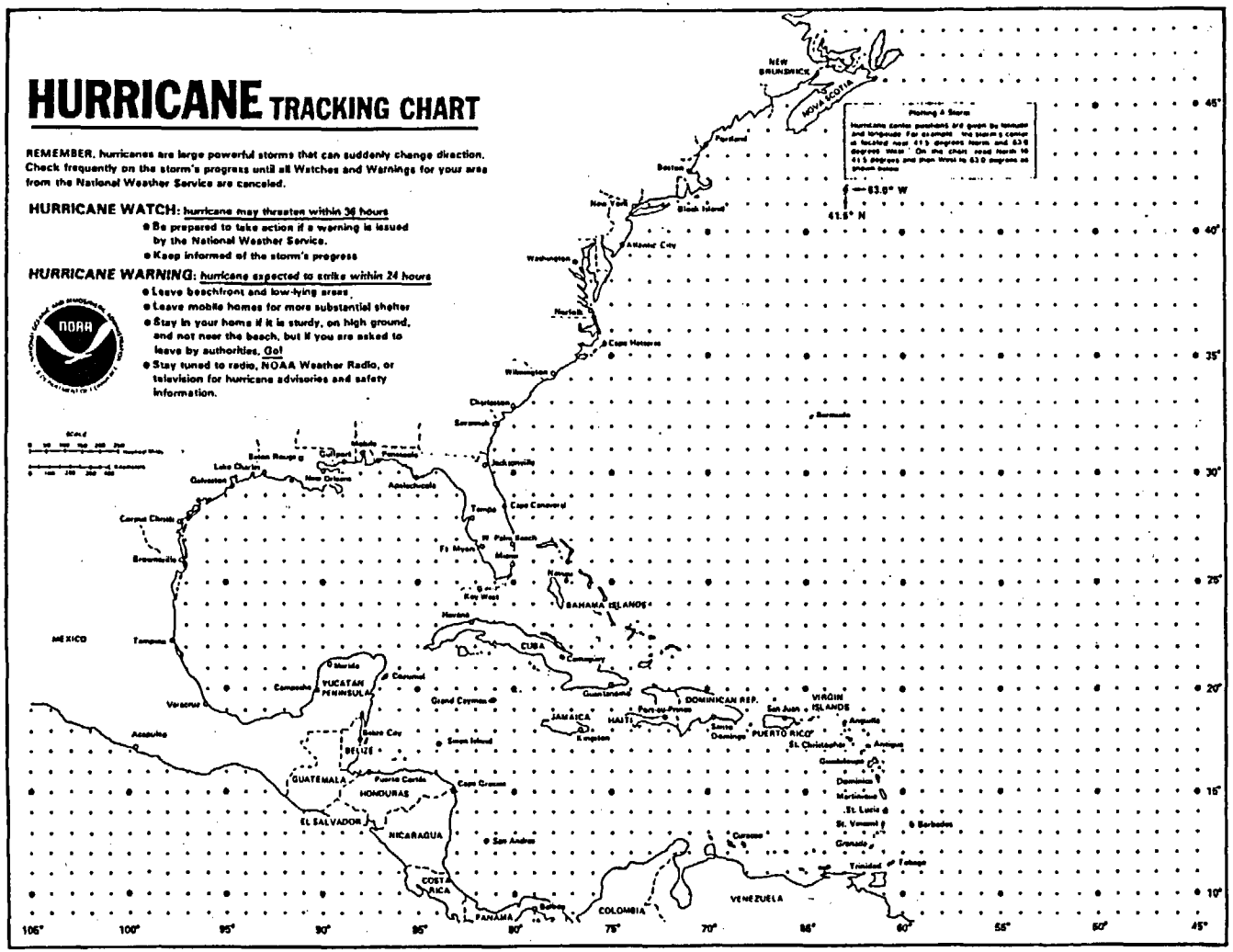
REMEMBER, hurricanes are large powerful storms that can suddenly change direction. Check frequently on the storm's progress until all Watches and Warnings for your area from the National Weather Service are canceled.

HURRICANE WATCH: hurricane may threaten within 36 hours

- Be prepared to take action if a warning is issued by the National Weather Service.
- Keep informed of the storm's progress

HURRICANE WARNING: hurricane expected to strike within 24 hours

- Leave beachfront and low-lying areas.
- Leave mobile homes for more substantial shelter
- Stay in your home if it is sturdy, on high ground, and not near the beach, but if you are asked to leave by authorities, Go!
- Stay tuned to radio, NOAA Weather Radio, or television for hurricane advisories and safety information.



NOAA PA 77020

REVISION SUMMARY for Rev 27 of EM-220 (May 2003)

Procedure Section	Changes and Reason
Throughout	Removed references to FPC and Florida Power. Replaced with either Progress Energy or CR3 Deleted references to Corporate Security Identified appropriate NOCS numbers
Section 1.1 and 2.1	Added reference to SOER 02-01, Violent Weather
4.1.2.7 and Checklist 5, 4.3.g	Add statement to USE CCTV systems if available – when transferring outside patrol functions to inside.
5.0 NOTE	Change Distribution Storm Center to Progress Energy Storm Center to reflect company storm center.
Checklist 2, 4.1.3	Deleted "not associated with Tropical Storm or Hurricane" for topic of flood warnings. These steps are associated with any flood warning. PRR 72911
Pg 8, Item a	Changed "out of service equipment log" to "equipment out of service log"
Checklist 2, Attach 2 Checklist 6	Removed Energy Control Center number for providing weather information. This is now provided on storm web page.
Checklist 3A	Add inspection of areas around the RVCH Storage Building and Pre-Assembly Bldg. EC 50223
Checklist 3B 4.4.f	Added flap valve inspection as part of TSC diesel blast wall security upgrade: SDV-182 and SDV-183 located at the TSC. EC 50299, PRR 84543, 83401.
Checklist 7, 4.3.d	Add inspection of areas around Cafeteria and Conference Building
Checklist 8, 4.3.f	Revised title for Corporate Relations
Enclosure 6	Removed reference to Regulatory Affairs. PRR 77842 and PRR 82615 Removed reference to Dunnellon District Office.
Enclosure 8	Changed CAT ID for TSC Aluminum Flood Barrier Protection; Removed CAT ID for items stored in Cold Tool Crib, each one is a separate CAT ID number.
Enclosure 8	Added MRE's on 124' Control Complex for Operation shift. These are not part of Hurricane supplies. NCR 70155 requested added to EM-220 to inventory during pre-hurricane season.