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SERIAL: BSEP 03-0119

10 CFR 50.54 (q)

**U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001**

**BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REVISIONS TO PLANT EMERGENCY PROCEDURES**

Ladies and Gentlemen:

In accordance with 10 CFR 50.54(q) and 10 CFR 50, Appendix E, Section V, Progress Energy Carolinas, Inc. is submitting revisions to Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, plant emergency procedures. Progress Energy Carolinas, Inc. has evaluated the revisions, in accordance with 10 CFR 50.54(q), and has determined that the changes do not decrease the effectiveness of the Radiological Emergency Response Plan; and the Plan, as changed, continues to meet the standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. A list of the revised procedures is provided as Enclosure 1. A summary of the revisions is provided in Enclosure 2. Enclosure 3 contains copies of the revised procedures.

There are no regulatory commitments being made in this submittal. Please refer any questions regarding this submittal to Mr. Gene Atkinson, Supervisor – Emergency Preparedness, at (910) 457-2056.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. T. O'Neil'.

**Edward T. O'Neil
Manager – Support Services
Brunswick Steam Electric Plant**

Document Control Desk
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Enclosures:

1. List of Revised Plant Emergency Procedures
2. Summary of Revisions
3. Copies of Revised Procedures

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List of Revised Plant Emergency Procedures

Procedure	Revision	Effective Date	Title
OPEP-02.6	9	07/17/03	Severe Weather
OPEP-04.2	25	06/30/03	Emergency Response Facilities And Equipment

Summary of Revisions

A. OPEP-02.6, Severe Weather, Revision 9:

1. Added OPEP-02.7, Recovery, as new reference in Section 2.4 and referred user to Recovery procedure in Section 6.4 description of restoration following severe weather.
2. Added SOER 02-1, Severe Weather, as new reference in Section 2.5 and added reference commitments in procedure, as appropriate.
3. Changed "On-Line Scheduling Superintendent" to "Supervisor – Emergency Preparedness" as individual who receives status of severe weather activities and updates management in Section 4.1.1.
4. Changed "CP&L" to "Progress Energy" in Attachment 3, Severe Weather Restoration Guidelines, and on Cover Page to reflect company name change.
5. Clarified location for placement of sandbags at Diesel Generator Building, Control Building HVAC Room, and Caswell Beach; and added Operations and Maintenance (O&M) Building in Section 6.2.7.1.

B. OPEP-04.2, Emergency Facilities And Equipment, Revision 25:

1. Changed "CP&L" to "Progress Energy" on Cover Page and Attachment 5, Brunswick Nuclear Plant (BNP) Fax Test Letter, to reflect company name change.
2. Bolded announcement information in Section 5.5.3 for user-friendliness.
3. Added information to verify testing of generators in Telecommunications Building and microwave tower with Telecommunications as new Section 5.10.9.
4. Added information to perform annual operability check of telephones in the Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF) as new Section 5.10.10.

- 5. Added information in Attachment 3, OSC/TSC/EOF/Joint Information Center (JIC) Quarterly Checklist, to verify operability of televisions, monitors, and radios in JIC Command Room in Step 7.**
- 6. Added information in Attachment 3 to verify evacuation signs as new Step 9.**
- 7. Added information in Attachment 3 to verify copies of Emergency Notification Forms as new Step 10.**
- 8. Added JIC Support Room to Attachment 4, Miscellaneous Supplies Guide.**
- 9. Designated first aid kits as outside TSC or EOF rest rooms in Attachment 4 to reflect relocation of kits to improve accessibility.**
- 10. Changed "OSC Locker" to "OSC Command Room" in Attachment 4 to reflect relocation of equipment from locker to cabinets in Command Room.**

BSEP 03-0119
Enclosure 3

Copies of Revised Procedures

PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT
0

0PEP-02.6

SEVERE WEATHER

REVISION 9

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1.0 PURPOSE

This procedure provides instructions and guidelines for Brunswick Nuclear Plant (BNP) and Emergency Response Organization (ERO) personnel for response to severe weather conditions during a classified emergency.

2.0 REFERENCES

- 2.1 OERP, Radiological Emergency Response Plan
- 2.2 OAI-68, Brunswick Nuclear Plant Response to Severe Weather Warnings
- 2.3 "Effect of Hurricane Andrew on the Turkey Point Nuclear Generating Station from August 20-30, 1992 (March 1993)"
- 2.4 OPEP-02.7, Recovery
- R 5

 2.5 SOER 02-1, Severe Weather (12/03/02)

3.0 DEFINITIONS

- 3.1 **Class I Structures** - Class I structures are designed to withstand a sustained wind velocity of 130 to 180 MPH depending on height and to resist the effects of a tornado. BNP Class I Structures include the:
 - Control Building
 - Diesel Generator Building and 4-Day Fuel Oil Tank Vault
 - Drywell and Suppression Chamber
 - Plant Stack
 - Reactor Building
 - Service Water Intake Structure
 - Nitrogen and Off-Gas Services Building (AOG)
- 3.2 **Class II Structures** - Class II structures are governed by the North Carolina Building Code Loadings. These structures include the:
 - Circulating Water Intake and Discharge Structure
 - Admin Building
 - Radwaste Building
 - Shops, Warehouse, and Stock Room Buildings
 - Service Building
 - Turbine Building
 - Water Treatment Building

3.0 DEFINITIONS

3.3 **Other Structures** - Structures listed below are governed by the North Carolina Building Code Loadings, and per code are designed to withstand wind velocities of 120 MPH.

- Operations and Maintenance Building (O&M)
- Technical and Administrative Center (TAC)
- Technical Training Center (TTC)
- TSC/EOF Building

3.4 **Hurricane** - Severe storm with winds greater than 73 mph and a well defined low barometric pressure center, called the eye. Hurricanes are rated based on the intensity of the storm. Wind speed and barometric pressure are the key parameters in determining strength.

Category	Pressure (millibars)	Pressure (inches)	Wind Speed (mph)	Storm Surge (feet)
1	> 979	≥ 28.92	74-95	4-5
2	965-979	28.50-28.91	96-110	6-8
3	945-964	27.91-28.49	111-130	9-12
4	920-944	27.18-27.90	131-155	13-18
5	< 920	≤ 27.17	> 155	> 18

3.5 **Hurricane Advisory** - Information released every six hours whenever a hurricane exists.

3.6 **Hurricane Bulletin** - Information released every three hours whenever a hurricane exists.

3.7 **Hurricane Warning** - A communication from NOAA whenever a hurricane is between 12 and 24 hours from the U.S. coast. This warning applies to an area approximately 50 miles either side of the expected landfall. This warning gives the expected time/location of landfall, as well as the hurricanes size, wind speed, direction, and speed of travel. It may also describe areas where high water, floods, or high waves may be expected.

3.0 DEFINITIONS

- 3.8 **Hurricane Watch** - A communication from NOAA whenever a hurricane is between 24 and 48 hours from the U.S. Coast. This watch applies to an area approximately 100 miles either side of the expected landfall.
- 3.9 **National Oceanic and Atmospheric Administration (NOAA)** - Federal agency which predicts environmental changes and conserves/manages coastal and marine resources (National Weather Service, National Ocean Service and National Marine Fisheries Service are NOAA programs).
- 3.10 **Tropical Storm** - A weather disturbance of large size rotating in a counterclockwise direction with wind speeds ranging from 39 to 73 mph, torrential rains and an area of low barometric pressure.
- 3.11 **Tropical Storm Warning** - A communication from NOAA whenever a tropical storm is between 12 and 24 hours from the U. S. coast.

4.0 RESPONSIBILITIES

- 4.1 The Shift Superintendent (Control Room Site Emergency Coordinator) is responsible for the site activities in preparation of severe weather. Delegation of the coordination of activities may occur as follows:
- 4.1.1 Prior to staffing or activation of the emergency response facilities, the normal site organizations report the status of activities to the Supervisor-Emergency Preparedness through OAI-68, Brunswick Nuclear Plant Response to Severe Weather Warnings. The Supervisor-Emergency Preparedness will provide periodic updates to plant management.
- R 5** 4.1.2 Following emergency response facility staffing, the Emergency Response Manager may be given overall control of storm preparations. The Site Emergency Coordinator (in the TSC) will be responsible for on-site preparations and the Assistant Emergency Response Manager (in the EOF) will be responsible for off-site preparations and logistics support.

4.0 RESPONSIBILITIES

- 4.2 The Supervisor - Emergency Preparedness is responsible for coordinating with unit managers to ensure ERO staffing requirements are maintained when determining available personnel resources prior to emergency response facility staffing or activation.
- 4.3 The Administrative and Logistics Manager (or Supervisor - Emergency Preparedness when in an Unusual Event) is responsible for coordinating with unit managers to ensure ERO staffing requirements are adequately met when determining available personnel resources.

5.0 GENERAL INFORMATION

- 5.1 Severe weather preparations may have been taken prior to event classification. Actions prior to implementation of the Emergency Plan are performed in accordance with OAI-68, "Brunswick Nuclear Plant Response to Severe Weather Warnings".
- 5.2 The potential for salt buildup on exposed surfaces and transmission equipment is possible during severe storms producing high winds with minimal rainfall.
- 5.3 If the eye of the hurricane passes over the site, winds and rain will abruptly decrease and a calm will occur for a short period of time after which winds will return from the opposite direction with extreme severity. Personnel should not be allowed out of doors until after the storm has completely passed.
- 5.4 Emergency measures should be maintained until official notification is received that the storm no longer poses a threat to the area.
- 5.5 A meteorological service provider is contracted to notify BNP of National Oceanic and Atmospheric Administration (NOAA) hurricane watch and warning declarations affecting the plant. Additional notifications are made to provide the initiating criteria which triggers the activities for extreme hurricanes.

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5.0 GENERAL INFORMATION

- 5.6 The on-site meteorological tower can measure wind speeds up to 100 mph. The tower is rated to withstand 125 mph winds; however, information or operability may be lost due to lightning strikes prior to the arrival of severe weather.
- 5.7 Other available sources of storm projection information originating from NOAA are the National Weather Service (NWS) located at the Wilmington Airport, State, and county emergency management agencies, and marine radio frequencies.

6.0 PROCEDURE

6.1 Tornado

For any tornado which has been observed on site, perform the following actions:

- 6.1.1 Instruct all personnel to seek shelter immediately.
- 6.1.2 If conditions warrant the declaration of an Alert or higher classification while a tornado is in the area and the Emergency Response Facilities are not already staffed or activated, consider delaying ERO mobilization until conditions allow safe movement out of doors (Notification of off-site authorities is still required).
- 6.1.3 Direct observers to find a safe location to establish communications and report the status of the tornado.
- 6.1.4 Direct personnel to conduct detailed plant and area surveys following the storm to assess any structural damage or loss of security controls.

6.2 Hurricane Warnings

When a hurricane warning is issued (12-24 hours before wind speeds are projected to exceed 73 miles per hour at the site) perform the following actions:

- 6.2.1 Conduct operator briefings and/or team simulator training to prepare for possible transients and circumstances which may be caused by the storm or storm related system failures. Emphasize the prompt re-establishment of site power.

6.2 Hurricane Warnings

- 6.2.2** Order all unnecessary work halted and expedite efforts to complete site preparations in accordance with OAI-68, Brunswick Nuclear Plant Response to Severe Weather Warnings.
- 6.2.3** Identify nonessential personnel who may be advised not to report in upcoming shifts if conditions warrant. Ensure personnel are notified of the off-site point of contact and post storm staging area.
- 6.2.4** Ensure Restoration team members are identified and instructed to attempt to report to the plant after the hurricane warning is lifted and state authorities report that travel is safe.
- 6.2.5** Relocate all nonessential personnel and visitors. Release site personnel in a controlled manner as preparations are completed or as personal circumstances dictate.
 - 1.** Coordinate the release of personnel with the Supervisor - Emergency Preparedness (or the Administrative and Logistics Manager if the EOF has been staffed) to ensure Emergency Response Organization staffing requirements for extended operations are addressed.
 - 2.** Ensure the release of personnel is far enough in advance of severe weather to allow personnel to arrive safely at their homes and avoid any undue congestion with the general public.
 - 3.** Ensure on-site personnel are notified of the off-site point of contact and post storm staging area prior to evacuation.
- 6.2.6** Designate and establish a protected location for storm duty vehicles. Ensure the vehicles are serviced and fueled. Move unnecessary vehicles out of the Protected Area and away from egress routes.

6.2 Hurricane Warnings

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6.2.7 Consider sandbagging areas which may be susceptible to flooding, using Attachment 1, Flood Protection: Sandbag Dikes.

1. Sandbag the following areas, as indicated below, for any hurricane.
 - a. TSC/EOF Training Bldg: 2' dike
 - b. Turbine Bldg. Entrances: 2' dike
 - c. 4160 BOP Switchgear Area: 2' dike
 - d. DG Bldg. Loading Dock
Roll-Up Door (south end)
(inside of door only): 3' dike
 - e. Radwaste Bldg. Doors
(loading dock area): 1' above floor (approximately
one (1) row of sandbags)
 - f. North & South Breezeway
Entrances: 2' dike
 - g. Control Bldg. HVAC Room:
(back doors) 1' above floor (approximately
one (1) row of sandbags)
 - h. EHC Rooms: 2' dike
 - i. Caswell Beach Switchgear
Building doors: 2' dike
 - j. Media Center (back lobby)
North and South doors: 2' dike
 - k. TTC Building Roll-up doors: 2' dike
 - l. TAC Building (West side)
Middle double doors: 2' dike
 - m. O&M Building
South Entrance doors: 2' dike
2. Resources for constructing sandbag dikes are described in OAI-68, Brunswick Nuclear Plant Response to Severe Weather Warnings.

6.2 Hurricane Warnings

6.2.8 Approximately three hours prior to projected wind speeds exceeding 73 miles per hour on site:

- 1.** Staff the Emergency Response Facilities and call in other personnel as necessary. As a minimum, a second shift of personnel which meet the minimum staffing requirements of the emergency response facilities should be maintained on site for ERO responsibilities, and at least two crews of Fire Brigade personnel are on site to support post hurricane activities.
- 2.** Brief Emergency Response personnel on the storm, safety precautions, expected duties, and potential hazards.

6.3 Extreme Hurricanes

6.3.1 Additional precautions may be necessary for Category 4 and 5 hurricanes. Hurricanes meeting the following criteria will result in worse case storm surge water levels:

- 1.** Classification as a Category 4 or 5 Hurricane (sustained winds greater than 130 MPH).

AND

- 2.** Propagation speed greater than or equal to 35 MPH.

6.3.2 Seal communications and electrical equipment and boxes which may be susceptible to excessive wetting or immersion with plastic and tape.

6.3.3 Establish an emergency medical treatment area in the EOF/TSC/Training Building and in the plant and announce the locations. Ensure medical support and adequate supplies are staged and available at this area.

6.3.4 Prestage sufficient supplies and equipment (such as; tools, control point supplies, survey and sampling instruments, dosimetry, flashlights, radios, batteries, fire extinguishers, voltage testers, rope, bedding etc.) in easily accessible occupied locations.

6.3 Extreme Hurricanes

6.3.5 The O&M Building will not be habitable during Category 4 or 5 hurricanes. The Emergency Repair Director and staff should be located in a safe area inside the Control Building or in the TSC/EOF Building.

1. A safe OSC location can be established in the Operations Briefing Area in the back panel area of the Control Room. Consumable and other EP related items should be transported from the normal OSC when the decision to relocate is made.
2. Overflow for personnel and prestaged equipment can be located across from the Operations office area in the Radwaste 47' area.
3. Additional resources and staging areas are available in the Operations office area and on the turbine deck floor and engineering offices. Since these areas are susceptible to wind damage they will only be considered available on a situational basis (for example, post storm recovery activities).

NOTE: Recommend pre-staging approximately three (3) people in the Diesel Generator Building and two (2) in the Service Water Building, if conditions warrant. Also, consider staging one (1) or two (2) engineers in the Control Room prior to hurricane arrival to provide support in locating and eliminating grounds.

6.3.6 Personnel should be prestaged in vital areas, such as the Diesel Generator Building, Service Water Building, and Reactor Building. Considerations should include:

1. Ensuring adequate preparations for tools, equipment, supplies, and personal items are made at remote locations prior to the storm.
2. Discussions of the responsibilities and actions (such as load shedding and ground isolations) taken in the event of loss of communications with the plant.
3. Isolation of the Halon Systems (including battery backup power) in occupied areas.

6.3 Extreme Hurricanes

4. Installation of life lines between operating areas of the plant in case personnel must be sent to or evacuate from an area during high winds.
 5. Placement of vehicles outside the TSC and power block for movement of personnel if necessary.
- 6.3.7 Discuss responsibilities and contingencies for overall command and control with ERO managers in the event intra-facility communications become impacted.
- 6.3.8 Consider performing the following steps as final preparations are completed:
1. Collect radioactive sources from buildings not designated as Class 1 structures and store in a protected area.
 2. Direct the venting of the Hydrogen and Oxygen tanks.
 3. Ensure all remaining on-site personnel are in a safe location and accounted for.
 4. Direct closed circuit television to be placed in a continuous recording mode to collect historical visual data.
 5. Suspend operator rounds, Fire Watches, and outside security safeguards activities as conditions dictate. Evaluate 10CFR50.54(x) applicability.
 6. Determine if RCA gates can be opened to allow safer access for personnel.
 7. Establish an access path from the power block to the Service Building through the Unit #2 Laydown (for example, Unit #2 Turbine Laydown Area through EHC Room, continuing through Heater Drain Pump Room to the Breezeway).
 8. Manually switch TSC/EOF load to diesel generator prior to hurricane force winds.
- 6.3.9 If there is a loss of power to the TSC/EOF Building and TSC/EOF diesel generator capability, evaluate information in Attachment 2, TSC/EOF Power Supply Alternatives.

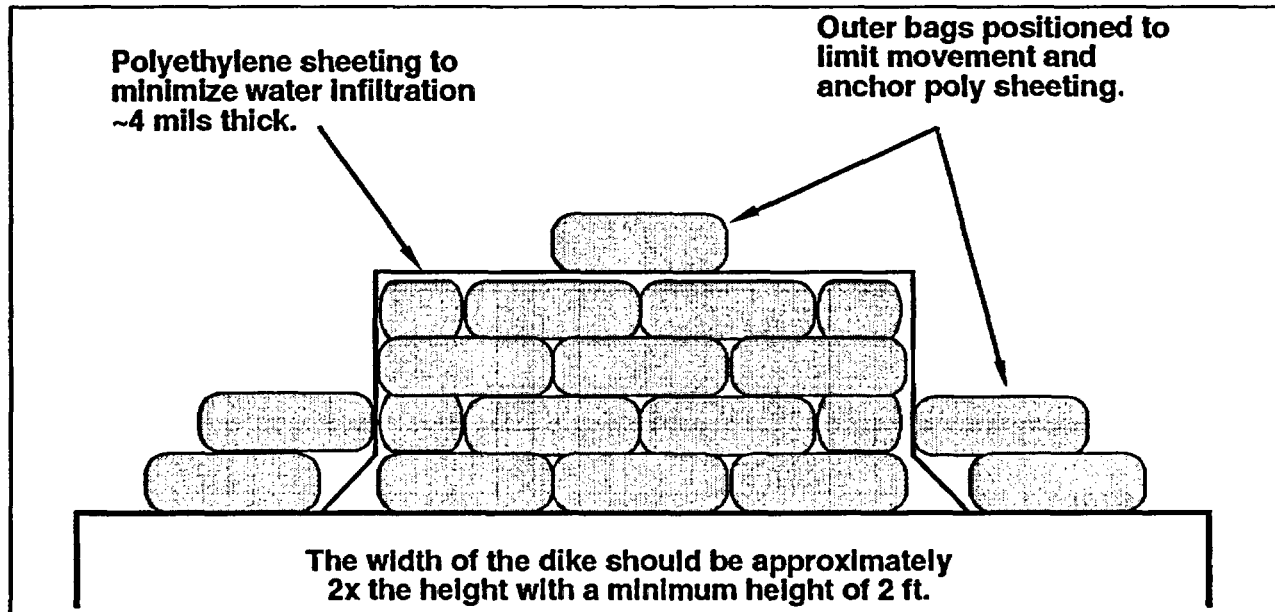
6.4 Restoration Following Severe Weather

Restoration from a severe weather emergency may be coordinated by establishing a restoration organization similar to the Recovery Organization described in the BNP Radiological Emergency Response Plan and OPEP-02.7, Recovery, as necessary, and by using Attachment 3, Severe Weather Restoration Guidelines. Restoration may be conducted irrespective of an emergency classification.

7.0 RECORDS

Documentation generated from implementation of this procedure should be forwarded to the Supervisor - Emergency Preparedness for submittal to Document Services for retention.

ATTACHMENT 1
Page 1 of 1
Flood Protection: Sandbag Dikes



Side View of a Typical Sandbag Dike

NOTES:

1. The location of dikes placed along walls shall be chosen to limit obstruction to equipment and components mounted on those walls.
2. Dike size and placement should be determined by field personnel based on the availability of sandbags and labor. Dike dimensions should be similar to those shown above.
3. Position sandbags used to protect doors on a side that will maintain building access. Consider constructing a dike in the shape of a horseshoe around the door if time and resources allow.

ATTACHMENT 2

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TSC/EOF Power Supply Alternatives

In the event of a loss of off-site power to the TSC/EOF Building, and loss of the TSC/EOF emergency diesel generator, evaluate the following:

1. If it is necessary to obtain an additional power source, consider using a portable diesel generator tied in at the permanent diesel feeder cable. **NOTE:** A possible source on site may be use of the SSFPC emergency diesel generator.
2. Prioritize communications capability using the following information. Coordinate activities with Telecommunications to shed loads to conserve power. For example, if priority is to use Selective Signaling, then conserve power by shedding PBX system.

TSC / EOF EQUIPMENT	BATTERY CAPABILITY
Fax Machines	No Battery Back-up
* Siren Computer	8-12 Hours (Separate UPS Battery System)
Emergency Lights	2 -3 Hours
** PBX Phone System, Sel. Signaling, Decision Line & Hotline	8 - 12 Hours

NOTES:

- * If the siren computer in the EOF loses power, the counties will continue to have capability to sound the sirens. The siren computer Field Interface Unit (FIU) is located in the Microwave Building and has an emergency generator.
- ** PBX phones in the Control Room operate from a system in the Telecommunications Building which has a battery capability of approximately 14 hours. The Telecommunications Building also has its own back-up gas generator. PBX phones in the TSC/EOF operate from a system in the TSC/EOF Building, and these phones have a battery back-up capability of approximately 8 hours.

ATTACHMENT 3
Page 1 of 5
Severe Weather Restoration Guidelines

Damage to safety-related portions of the plant are expected to be relatively minor due to their design. The majority of the Restoration efforts are expected to involve the restoration of the nonsafety-related portion of the plant; off-site emergency preparedness issues; and assistance to employees and their families. Prompt coordination with the Progress Energy Corporate offices and other Progress Energy plants for support and resources is essential. Perform the following and complete Attachment 4, Plant Equipment Status List:

- 1 Coordinate and direct the conduct of an initial survey of all site areas. Hazards such as weakened structures and piping, damaged power lines and electrical equipment, chemical or other type spills, and the absence of normal fire fighting capabilities are likely following a severe storm. Instruct close attention be paid to the chlorine car or spent fuel casks stored outside the Protected Area.
- 2 Inspect the Caswell Beach Pumping Station, intake canal, and diversion structure for damage/debris.
- 3 Coordinate and direct the conduct of a radiological survey of all site areas. Radiological surveys of outside areas may be required prior to granting full access to the Protected Area. Post or re-post radiation and contamination area boundaries as necessary.
- 4 Dispatch teams as soon as possible following storm passage to search for missing personnel and provide aid to trapped or injured personnel as necessary.
- 5 Re-establish communications with the applicable off-site organizations to report the status of the plant and personnel.
- 6 Re-establish fire protection and security measures as soon as the situation has been evaluated and conditions allow. Remove, rope off, or otherwise resolve unsafe conditions in and around the site.
- 7 Review existing conditions, outline the issues to be resolved, and develop a Issues/Strategies Package which will form the basis of the Restoration Plan. Issues which should be considered in the formation of the package may include:

ATTACHMENT 3
Page 2 of 5
Severe Weather Restoration Guidelines

- **ON-SITE RESTORATION:**

NOTE:

If the decision is made to leave the site partially mobilized through hurricane season, perform the following:

- return all equipment required for normal operations to designated storage areas (for example, EMS boxes and oxygen boxes) and the defibrillator should be returned to the O&M First Aid Room;
- procure additional equipment, as necessary, to avoid depletion of supplies for normal operation; and
- if sand-bags are left in designated locations, ensure they are safely stacked away from doors/entry-ways, but accessible for storm preparations.

- **RESTORATION OF EQUIPMENT**

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- Restore adequate on-site/off-site communications as soon as possible.
- Interview Operations concerning operability of instrumentation/equipment needed to support EALs and operability of ERDS.
- Interview E&RC concerning normal environmental monitoring sampling equipment (TLDs).
- Perform electrical inspection of equipment which was exposed to the storm's environment prior to re-energizing.
- If restoration of equipment is necessary for reactor safety, and time does not permit a full cleaning and inspection, station a watch in a safe location to report any abnormal operation.
- Attempt to procure and utilize replacement equipment as an alternative to a detailed clean and inspect.
- Electrical equipment may require a fresh water rinse following exposure to a severe storm. Rain associated with hurricanes usually contains high concentrations of salt.

ATTACHMENT 3
Page 3 of 5
Severe Weather Restoration Guidelines

- **RESTORATION OF EQUIPMENT (Cont'd)**
 - Restore meteorological monitoring capabilities as applicable.
 - Pump out rattlespaces, manholes and other low-lying areas where water has collected.
 - Restore combustible material staged for the storm to appropriate locations.
- **CLEANUP AND RESTORATION SUPPORT**
 - Use of a helicopter service for survey or transport of equipment and samples.
 - Procurement of debris clearing equipment such as: dump truck, front end loader, bull dozer, mobile crane, back hoe, motor grader, fuel and service truck, and general purpose flatbed.
 - Road-clearing activities by Progress Energy line crews.
 - Procurement of additional fuel oil for plant and clean-up equipment. Consider methods to expedite acceptance of fuel oil deliveries.
 - Procurement of marine service equipment, such as a canal dredge and pile driver.
 - Procurement of land service equipment, such as open top, drop frame, enclosed, and refrigerator trailers and tractors.
 - Procurement of rail service personnel and equipment.
 - Procurement of temporary structures, such as inflatable, mobile modular and Kelly buildings, laundry, shower and hygiene, and portable toilets, and tents.
 - Procurement of post and chain link security fence equipment.

ATTACHMENT 3
Page 4 of 5
Severe Weather Restoration Guidelines

- **OFF-SITE EMERGENCY PREPAREDNESS SUPPORT**
 - **OFF-SITE COMMUNICATIONS**
 - Perform tests of communications systems to State/counties.
 - Conduct pager test for Emergency Response Organization (ERO) personnel.
 - **EMERGENCY FACILITIES**
 - Conduct inventories of emergency equipment, as needed, using OPEP-04.2 and OPEP-04.6.
 - **INTERVIEWS**
 - Interview Letter of Agreement Agencies in the BNP Radiological Emergency Response Plan to verify capability to support BNP.
 - Interview County Emergency Management personnel concerning capability to support BNP, based on BNP Radiological Emergency Response Plan and NUREG-0654/FEMA-REP-1.
 - Interview State Emergency Management personnel concerning support capabilities.
- **RETURN SIREN SYSTEM TO SERVICE**
 - Interface with C&OS Storm Center to prioritize power restoration to sirens.
 - Assign individuals to perform visual inspections of each siren for damages.

ATTACHMENT 3
Page 5 of 5
Severe Weather Restoration Guidelines

- **RETURN SIREN SYSTEM TO SERVICE (continued)**
 - Coordinate repairs with Telecommunications and Wilmington South Operations personnel.
 - Perform rotation test and growl test of individual siren with an assigned observer at each location site.
 - Test communications between County operations consoles and sirens.
- **PEOPLE SUPPORT**
 - **SITE PERSONNEL SUPPORT**
 - Transport of food and water to the site.
 - Purchase of propane grills for on-site personnel to cook.
 - Location of offsite living quarters for plant personnel, such as mobile homes, motels, and apartments.
 - Acquisition of rental cars and cellular phones for employee transportation and communication.
 - **EMPLOYEE/DEPENDANT SUPPORT**
 - Identify a point of contact, message center, and assembly area for separated families.
 - Assistance in emergency shelter, temporary housing, and home restoration.
 - Supplies and transportation for families of site personnel.
 - Assistance and support in locating missing persons.
 - Assistance for areas such as home repair, moving, and storage.
 - Financial/Insurance counseling and assistance.
 - Day Care Centers for child care to support personnel return to work.
 - Return to work plan.
 - **OTHER**
 - Assign personnel to County EOCs to provide liaison, if appropriate.
 - Present self-assessment results to FEMA Assessment Team, if requested.

ATTACHMENT 4
Page 1 of 1
Plant Equipment Status List

ITEM	RESPONSIBLE ORG	STATUS
Secondary Containment Structural Inspections	BESS/OPS	
Intake Structure	BESS	
Intake Canal General Condition	MM	
Diversion Structural Operability	MM	
Diesel Building	OSC	
7-Day Tank	OPS	
Fire Tanks	OPS	
CST (Both)	OPS	
Mud tank	OPS	
Fire Pump Inspection	OPS	
SAT/Transformer Yard Switchyard	BESS/WATM	
Control Building 70 FT Equipment	BESS	
Security Fencing	Security	
Security Equipment Minimum Requirements	Security	
Stack Structural	BESS	
4 Day Tank Rooms	OPS	
Service Water Building	OSC	
Radiological Boundary	E&RC	
Protected Area Personnel Safety Walkdown	OPS	
4 Day Tank AFFF Building	OPS	
Evaluate DC Ground Status	BESS	

REVISION SUMMARY

Revision 9 of OPEP-02.6 consists of the following changes:

- Added OPEP-02.7, Recovery, as new reference in Section 2.4 and referred user to Recovery procedure in Section 6.4 description of restoration following severe weather.
- Added SOER 02-1, Severe Weather, as new reference in Section 2.5 and added reference commitments in procedure, as appropriate.
- Changed "On-Line Scheduling Superintendent" to "Supervisor-Emergency Preparedness" as individual who receives status of severe weather activities and updates management in Section 4.1.1.
- Changed CP&L to Progress Energy in Attachment 3, Severe Weather Restoration Guidelines, and on Cover Page to reflect company name change.
- Clarified location for placement of sandbags at Diesel Generator Building, Control Building HVAC Room, and Caswell Beach; and added O&M Building in Section 6.2.7.1.



PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT

0

0PEP-04.2

EMERGENCY FACILITIES AND EQUIPMENT

REVISION 25

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1.0 PURPOSE

This procedure provides guidance for the maintenance of on-site emergency facilities and equipment. This procedure does not address those areas covered under existing programs such as Fire Protection and Diesel/ Ventilation maintenance procedures. The facilities will include the equipment/material needed for the BNP Emergency Response Organization to adequately respond to an emergency.

This procedure is intended to be performed at a frequency specified for the particular equipment/facility or as needed following an emergency drill, exercise, or event. Although equipment testing is specific, items such as office supplies will be checked to ensure an adequate supply and the numbers listed are suggested quantities. This procedure describes when county/state and NRC should be notified of equipment problems.

In order to provide accurate status of EP equipment included in this procedure, Attachment 2 is to be completed for deficiencies that are noted during prescribed testing or those identified in operation.

2.0 REFERENCES

- 2.1 EPL-001, Emergency Phone List
- 2.2 OPEP-04.6, Radiological Emergency Kit Inventories
- 2.3 Motorola - CP&L MOSCAD Siren System Operators Manual
- 2.4 OPEP-03.1.3, Use of Communications Equipment
- 2.5 OPT-48.1, Public Address System Speaker Test
- 2.6 OPT-93.0, EOF/TSC Building Emergency System Test
- 2.7 OPT-94.0, EOF/TSC Emergency Ventilation System Lineup Verification
- 2.8 OPM-ENG505, Covington Diesel Generator, Model 7123-7305
- 2.9 OPM-GEN008, Covington Diesel Generator Electrical Inspections
- 2.10 OOI-01.07, Notifications
- 2.11 OPT-96.0, ERDS Quarterly Test with NRC
- 2.12 IOI-03.4.1, Unit 1 Control Operator Daily Check Sheets

3.0 DEFINITIONS

3.1 Annually

At least once per 366 days.

3.2 Biweekly

At least once every other week.

3.3 EOF

Emergency Operations Facility

3.4 Monthly

At least once per 31 days.

3.5 Once per Calendar Year

Once anytime between January 1 and December 31.

3.6 Quarterly

At least once per 92 days.

3.7 TSC

Technical Support Center

3.8 JIC

Joint Information Center

3.9 OSC

Operational Support Center

4.0 RESPONSIBILITIES

4.1 Supervisor - Emergency Preparedness

Emergency Preparedness is responsible to ensure adequate and timely maintenance of the Emergency Facilities and equipment.

4.2 Telecommunications

Is responsible to maintain on-site equipment, including selective signaling, decision line and siren equipment, at the off-site locations.

4.3 State/County/NRC Agencies

Are responsible to maintain their radio equipment.

4.4 North Carolina Emergency Management (NCEM) Operations Center

The NCEM Operations Center is responsible to initiate the Decision Line test monthly.

5.0 INSTRUCTIONS

NOTE: Due to the coordination requirements with State and County agencies that are necessary in Emergency Preparedness Programs, some test/surveillances may not occur within the strict periodicity definitions included in this procedure. Scheduling will be done to minimize this occurrence and any surveillance/test performed that exceeds the procedural definition should be noted with information identifying the reason for the deviation. In any case, the tests/surveillance deviations that occur due to coordination problems should not prevent satisfaction of the 3.25 periodicity requirement.

5.1 Monthly Communications Test

Communications testing with off-site agencies will be conducted on a monthly basis to coincide with the State Procedures. This will normally be the first Tuesday of each month but may be adjusted (adjusted annually for holiday conflicts).

5.1 Monthly Communications Test

NOTE: Steps 5.1.1 through 5.1.14 may be completed out of sequence or in parallel.

- 5.1.1 From the Control Room, utilize the Selective Signaling System to simultaneously activate all warning points (Code 10-22). Conduct a roll call to validate operability and document on Attachment 1.
- 5.1.2 From the Control Room, utilize the Selective Signaling System to simultaneously activate all EOCs (Code 10-33). Conduct a roll call to validate operability and document on Attachment 1.
- 5.1.3 Conduct a VHF radio test from the Control Room to either county. Verify operability and document on Attachment 1. (See OPEP-03.1.3 for use of VHF radios.)

NOTE: Contact Emergency Preparedness immediately on failure of selective signaling or VHF radio testing.

- 5.1.4 Complete and sign page 1 of Attachment 1 and forward to Supervisor - Emergency Preparedness.
- 5.1.5 Transmit a test facsimile message (Attachment 5, BNP Fax Test Letter) to all EOCs and warning points and document on Attachment 1. The "Time" should be recorded as time the fax was sent; signature at the completion of the test documents all points acknowledge receipt.
- 5.1.6 From the EOF, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.7 From the TSC, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.8 From the simulator, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.9 On initiation of call by the NCEM Operations Office, answer the State Decision Line phone to support the test. Verify operability and document on Attachment 1.

5.1 Monthly Communications Test

- 5.1.10 Conduct a test of the VHF radio(s) from the TSC to New Hanover and Brunswick counties. Verify operability and document on Attachment 1. (See OPEP-03.1.3 for use of VHF radios.)
- 5.1.11 Contact the NRC Region II office from both the EOF and the TSC using the telephone number listed in EPL-001.
- 5.1.12 Contact South Carolina Bureau of Radiological Health using the telephone number listed in EPL-001.
- 5.1.13 Notify the Control Room and inform them that testing of the Emergency Telecommunications System (ETS) is in progress and request that Control Room personnel disregard the Emergency Notification System (ENS) phone in the Control Room until notified testing is complete or the ENS telephone rings more than twice.

NOTE: The Environmental Monitoring Team cell phone, stored in the EOF BEN room, can be used for testing the ETS phones on outside lines.

CAUTION

Do not leave the ENS phone in the simulator plugged into a live ENS jack. When testing of the ENS phone in the simulator is complete, unplug the phone from the live ENS jack and return it to the simulator booth ENS jack.

- 5.1.14 Conduct testing of the ETS telephones in the EOF and TSC. Document results of testing on Attachment 1. Telephone numbers for ETS calls to the NRC are posted on the phones, if phone is permanently located, and in EPL-001. On-Site numbers for calling the ETS telephones are found in Attachment 1 and EPL-001. All calls must use outside lines (i.e., 8-1-XXX-XXXX) for testing.

NOTE: On occasion, it may be necessary for the NRC Operations Center Duty Officer to delay calling back on the ENS telephones due to a heavy volume of communications traffic. If the Duty Office cannot call back in a reasonable time, this section of Attachment 1 must be repeated at a later time.

- 5.1.15 Notify the Control Room that testing of the ETS Telephone System is complete and to no longer disregard rings on the ENS telephone.

5.1 Monthly Communications Test

- 5.1.16 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number). Document each identified equipment problem on a separate Attachment 2.
- 5.1.17 Prior to returning equipment to service, verify operability by testing and document on Attachment 2. Individual telephones in the Selective Signaling System may be tested to determine operability. See Attachment 7, Selective Signaling Individual Location Telephone Numbers, for specific selective signal location numbers.
- 5.1.18 Forward completed documentation to Records Management with "OPEP-04.2" clearly identified on the transmittal form.

5.2 Siren Silent Test

<p>NOTE: Refer to Attachment 8 for siren troubleshooting and return to service information.</p>

A silent test of the Alert and Notification (Siren) System shall be completed on a biweekly frequency (26 times per year).

- 5.2.1 A silent siren report should printout each day shortly after midnight, if not, demand a report by performing the following:
 - 1. Log onto the siren computer.
 - 2. Click <INTERROGATE> at the bottom of the screen.
 - 3. Click <ALL> to interrogate all sirens.
 - 4. Click <OPERATOR> at the bottom of the screen to initiate commands.
 - 5. Click <MANAGER> on the right side of the screen to obtain report capability.
 - 6. Click <REPORT> on the lower right to print the test report.

5.2 Siren Silent Test

- 5.2.2 Evaluate the Silent Report for failures. "Normal" on the printout in the Radio Communication column indicates acceptable test results.

NOTE: Refer to 0OI-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.

- 5.2.3 Report any failures to Telecommunications Help Desk (see EPL-001 for telephone number) and notify the appropriate county. Document each identified equipment problem on a separate Attachment 2, Equipment Repair Form.

1. Notify counties when siren(s) are placed back in service and complete Attachment 2.

- 5.2.4 Forward the Silent Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "OPEP-04.2" on the transmittal form.

5.3 Siren Growl Test

A growl test of the Alert and Notification (Siren) System shall be completed quarterly (2nd Monday of January, April, July & October). Variation in test days may occur due to holidays or state/county request.

- 5.3.1 Coordinate with counties on an agreed-to test date; and ensure that a news release has been issued by Site Communications, in advance, announcing the date and time of test.
- 5.3.2 Coordinate with Telecommunications to have a representative present during the test to ensure any siren failing the test can be quickly diagnosed and scheduled for repair; and notify Wilmington South Office of date and time of test.

5.3 Siren Growl Test

5.3.3 Ensure that each of the following locations have been notified of the test time on the day of the test.

1. Control Room
2. NRC Resident's Office
3. Telecommunications Help Desk
4. Visitors' Center
5. Switchboard Operator
6. Site Communications Office
7. Wilmington South Office

5.3.4 On the test date, have both counties select and perform a growl test from their console.

5.3.5 Approximately 10 minutes after test initiation, a report should print at the siren computer. If not, demand a report as per Step 5.2.1.

5.3.6 Evaluate the Siren Growl Test Report for failures. Acceptable test results will be identified by a check mark (✓) in the "Good Activation" column and "Normal" in the "Communication" column. An acceptable alternative is an observer at the siren site who verified that the siren sounded.

NOTE: Refer to 0OI-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.

5.3.7 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number) and the appropriate county. Document each identified equipment problem on a separate Attachment 2, Equipment Repair Form.

1. Notify counties when siren(s) are placed back in service and complete Attachment 2.

5.3.8 Forward the Growl Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "0PEP-04.2" on the transmittal form.

5.4 Siren Full Volume Test

A full volume test will be conducted on a once per calendar year basis.

- 5.4.1 Coordinate with counties/state to establish an agreed test date. This may be required during the emergency preparedness exercise with the state agencies.
- 5.4.2 Ensure that a news release has been issued by Site Communications, in advance, announcing the date and time.
- 5.4.3 Coordinate with Telecommunications to have a representative present during the test to ensure any siren failing the test can be quickly diagnosed and scheduled for repair; and notify Wilmington South Office of date and time of test.
- 5.4.4 Ensure that on the day of the test each of the following locations have been notified of the test time prior to performing the test.
 - 1. Control Room
 - 2. NRC Resident's Office
 - 3. Telecommunications Help Desk
 - 4. Visitors' Center
 - 5. Switchboard Operator
 - 6. Site Communications Office
 - 7. Wilmington South Office
- 5.4.5 On the test date, have both counties select and perform one separate full volume test or siren "Alert."
- 5.4.6 Approximately 10 minutes after test initiation, a report should print at the siren computer. If not, demand a report as per Step 5.2.1.

5.4 Siren Full Volume Test

- 5.4.7 Evaluate the Siren Full Volume Test Report for failures. Acceptable test results will be identified by a check mark (√) in the "Good Activation" column, an X in the "Rotation" column, and "Normal" in the "Communication" column. An acceptable alternative is an observer at the siren site who verified that the siren rotated at least twice and sounded at full volume for approximately three minutes.

NOTE: Refer to 0OI-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.

- 5.4.8 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number) and the appropriate county. Document each identified equipment problem on Attachment 2, Equipment Repair Form.
- 5.4.9 Notify counties when siren(s) are placed back in service and complete Attachment 2.
- 5.4.10 Forward the Alert Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "OPEP-04.2" on the transmittal form.
- 5.4.11 In January, prepare and forward to the state of North Carolina and FEMA, a report certifying the successful testing of the Early Warning System sirens in the 10 mile EPZ. The report should state whether or not 90% operability of the system was attained.

5.5 Quarterly Pager Test

- 5.5.1 Contact the Operations Shift Superintendent and request Operations assistance using the PA to notify the site that testing of BEN is in progress.
- 5.5.2 Initiate a quarterly pager test by contacting Security in the SAS and requesting BEN initiation with a code of 8 8 8.

5.5 Quarterly Pager Test

- 5.5.3 Approximately two minutes after ERO pagers on group page sound, request the Control Room to make the following announcement:
- "Attention all personnel. This is a drill message. Testing of the Brunswick Emergency Notification System is in progress. All minimum staffing ERO members who have not responded to BEN should call 3333 immediately. This is a drill message."**
- Attention all personnel. This is a drill message. Testing of the Brunswick Emergency Notification System is in progress. All minimum staffing ERO members who have not responded to BEN should call 3333 immediately. This is a drill message."**
- 5.5.4 Verify from the BEN printout that the ERO minimum staffing positions responded within 15 minutes of BEN initiation.
- 5.5.5 Document results and submit to Records Management for retention.
- 5.5.6 Document any pagers identified as not responding to the pager test on Attachment 2, Equipment Repair Form. Contact Information Technology for repair.
- 5.5.7 On the day following the monthly test, a site-wide e-mail should be sent out instructing ERO members not receiving a page during the test to contact EP for remediation.

5.6 Quarterly Checklist

- 5.6.1 Complete Attachment 3, OSC/TSC/EOF/JIC Quarterly Checklist, on a quarterly basis to verify operability and availability of equipment and materials. Administrative supplies will be supplemented as necessary.
- 5.6.2 Complete Attachment 9, JIC Telephone Operability Checklist, to verify operability of telephones in the JIC storage bins. Operability is determined by plugging the phone into a jack and successfully completing a call to another phone.
- 5.6.3 Document equipment problems and resolution on Attachment 2, Equipment Repair Form.
- 5.6.4 Retain documentation in EP files in accordance with OPEP-04.1 requirements.

5.7 Dose Projection/Environmental Monitoring Cabinet Inventory List

Complete Attachment 6, Dose Projection/Environmental Monitoring Cabinet Inventory List, on at least a quarterly basis. A "spot check" should be conducted following each drill or event to ensure adequate supplies. Retain documentation in EP files in accordance with OPEP-04.1 requirements.

5.8 Miscellaneous Supplies Guide

Complete Attachment 4, Miscellaneous Supplies Guide (OSC/TSC/EOF/JIC) on at least a quarterly basis to verify necessary supplies are in place. A "spot check" should be conducted following each drill or event to ensure adequate supplies. Retain documentation in EP files in accordance with OPEP-04.1 requirements.

5.9 EPL-001 Review

- 5.9.1 A review of EPL-001 will be conducted on a quarterly basis to verify names, phone numbers and qualification status of ERO members.
- 5.9.2 Individuals should be notified to verify office, home and pager phone numbers.
- 5.9.3 EPL-001 should also be compared to the current ERO Team List.
- 5.9.4 EPL-001 will be revised, as necessary, by Emergency Preparedness and approved by the Supervisor - Emergency Preparedness.
- 5.9.5 The updated Emergency Phone List should then be forwarded to Document Services for distribution.

5.10 Other Tests

- 5.10.1 Schedules for testing at prescribed frequencies defined in this procedure will be maintained by Emergency Preparedness.
- 5.10.2 Public Address units in the TSC and EOF are tested per OPT-48.1 on a quarterly basis by Operations.
- 5.10.3 TSC/EOF emergency diesel generator is tested per PMs, ENG505, and GEN008 at prescribed frequencies by Maintenance.

5.10 Other Tests

- 5.10.4 TSC/EOF ventilation is tested per OPT-93.0 and OPT-94.0 by Maintenance at prescribed frequencies. OPT-93.0 is coordinated by the System Engineer. OPT-94.0 is coordinated by Operations.
- 5.10.5 Radiological Emergency Kits are inventoried by E&RC and Operations at prescribed frequencies per OPEP-04.6.
- 5.10.6 ETS ERDS telephone lines are tested on a quarterly basis per OPT-96.0 by Information Technology.
- 5.10.7 Control Room ETS ENS phones are tested monthly per 1OI-03.4.1 by Operations.
- 5.10.8 Test the satellite phone on at least a quarterly basis. Problems experienced should be documented and resolved via Attachment 2, Equipment Repair Form.
- 5.10.9 Verify testing of generators at Telecommunications Building and microwave tower with Telecommunications on a quarterly basis.
- 5.10.10 Perform an annual operability check of telephones located in the TSC, OSC, and EOF, as described in OPEP-02.6.12, OPEP-02.6.26, and OPEP-02.6.27.

6.0 RECORDS

Documentation of the described tests should be retained and sent to Records Management as described in each surveillance.

ATTACHMENT 1
Page 1 of 4
BNP Communications Test

1. Communications Testing in Control Room

AGENCY	METHOD OF CONTACT	PERSON CONTACTED	TIME
Brunswick County WP	Selective Signaling		
New Hanover County WP	Selective Signaling		
State Warning Point	Selective Signaling		
Brunswick County EOC	Selective Signaling		
New Hanover County EOC	Selective Signaling		
NCEM Operations Center	Selective Signaling		
Coast Guard Wilmington MSO/EOC	Selective Signaling		
Coast Guard Ft. Macon EOC	Selective Signaling		
Control Room to either County	VHF Radio		
Comments:			
<p>The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.</p> <p>Completed by: _____ Date: _____</p>			

ATTACHMENT 1
Page 2 of 4
BNP Communications Test

2. Communications Testing in EOF and TSC

AGENCY	METHOD OF CONTACT	PERSON CONTACTED	TIME
Test Fax to all WPs & EOCs	Fax	N/A	
EOF Selective Signaling to any EOC	Selective Signaling		
TSC Selective Signaling to any EOC	Selective Signaling		
Simulator Selective Signaling to any EOC	Selective Signaling		
State/County	Decision Line		
TSC to Brunswick County	VHF Radio		
TSC to New Hanover County	VHF Radio		
NRC (Region II office) from EOF	Bell System		
NRC (Region II office) from TSC	Bell System		
South Carolina Bureau of Radiological Health	Bell System		
Comments:			
<p>The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.</p> <p>Completed by: _____ Date: _____</p>			

ATTACHMENT 1
Page 3 of 4
BNP Communications Test

3. Emergency Telecommunications System (ETS) Testing

NOTE: ENS numbers for contacting the NRC are found in EPL-001 or posted on the telephones. The on-site ENS number for call backs is 919-362-3145.

	Initials / Time
Notified Control Room of start of ENS testing	_____ / _____
ENS (EOF NRC Room) call to the NRC completed successfully	_____ / _____
Person contacted: _____	
Call from NRC to ENS (EOF NRC Room) received successfully	_____ / _____
ENS (TSC Room 144) call to the NRC completed successfully	_____ / _____
Person contacted: _____	
Call from NRC to ENS (TSC Room 144) received successfully	_____ / _____

NOTE: Calls on the following phones must be made using outside lines (i.e., 8-1-XXX-XXXX) for testing. The Environmental Monitoring cell phone stored in the EOF BEN room is recommended for this use.

CAUTION

Do not leave the ENS phone in the simulator plugged into a live ENS jack. When testing of the ENS phone in the simulator is complete, unplug the phone from the live ENS jack and return it to the simulator booth ENS jack.

Call from Simulator ENS completed successfully	_____ / _____
Call from RSCL (EOF NRC Room) completed successfully	_____ / _____
Call from HPN (EOF Room 123) completed successfully	_____ / _____
Call from PMCL* (EOF Room 128) completed successfully	_____ / _____
Call from HPN* (EOF Room 128) completed successfully	_____ / _____
Call from ENS* (EOF Room 130) completed successfully	_____ / _____
Call from OCL* (EOF Room 130) completed successfully	_____ / _____
Call from MCL* (EOF Room 130) completed successfully	_____ / _____
Call from PMCL (TSC Room 144) completed successfully	_____ / _____
Call from HPN (TSC Room 143) completed successfully	_____ / _____

* Phone may not be plugged into jack. Phone must be plugged into jack prior to test.

ATTACHMENT 1
Page 4 of 4
BNP Communications Test

Call from ENS* (TSC Room 149) completed successfully	_____ / _____
Call from HPN* (TSC Room 149) completed successfully	_____ / _____
Call from OCL* (TSC Room 149) completed successfully	_____ / _____
Call from RSCL* (TSC Room 150) completed successfully	_____ / _____
Notified Control Room that ENS testing is complete	_____ / _____

* Phone may not be plugged into jack. Phone must be plugged into jack prior to test.

ETS On-Site Phone Numbers:	
Emergency Notification System (ENS)	919-362-3145
Health Physics Network (HPN)	910-457-3061
Management Counterpart Link (MCL)	910-457-3284
Operation Center LAN (OCL)	910-457-3062
Protective Measure Counterpart Link (PMCL)	910-457-3282
Reactor Safety Counterpart Link (RSCL)	910-457-3274

Comments:

The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.

Completed by: _____ Date: _____

ATTACHMENT 2
Page 1 of 1
Equipment Repair Form

Person Identifying Problem: _____

Equipment Out of Service: _____

Description of Problem: _____

Problem Reported To: _____

Date/Time

EFFECTED AGENCIES CONTACTED:

Name of Contact/Agency: _____

Date/Time

Name of Contact/Agency: _____

Date/Time

Name of Contact/Agency: _____

Date/Time

Name of Contact/Agency: _____

Date/Time

Explanation of Repair: _____

Equipment Retested and Restored to Service: _____

Signature

Date

Previously Contacted Agencies Notified: _____

Signature

Date

Route to Records Management as specified in this procedure.

ATTACHMENT 3
Page 2 of 4
OSC/TSC/EOF/JIC Quarterly Checklist

4. Facsimile/Telecopiers

Fill paper trays and verify correct date and time is displayed

-EOF Outgoing	<u> / </u>
-EOF Incoming	<u> / </u>
-TSC	<u> / </u>
-JIC (See OPEP-02.6.29 for locations of the 4 fax machines)	<u> / </u>

5. Public Address/Intercom System

Verify operability including volume levels in each room. (Replace batteries, if necessary)

-EOF	<u> / </u>
-TSC	<u> / </u>
-OSC	<u> / </u>
-JIC	<u> / </u>

6. Communications Equipment

- Verify operability of automatic ring down phones	
- ERM to SEC	<u> / </u>
- CM to CD	<u> / </u>
- SEC to Control Room	<u> / </u>
- Conduct quarterly test of Satellite Telephone	<u> / </u>
- Conduct test of state Environmental Monitoring Team remote radio in the EOF	<u> / </u>
- Conduct test of the Site Environmental Monitoring Team radio	<u> / </u>
- Conduct test of the phone line from the U1 & U2 Remote Shutdown Panels to the TSC	<u> / </u>
- Conduct test of the Environmental Monitoring Team cell phone stored in the EOF BEN room	<u> / </u>

ATTACHMENT 3
Page 3 of 4
OSC/TSC/EOF/JIC Quarterly Checklist

7. Equipment

- Check the material condition of all communications headsets /
- Replace batteries in PI Specialist headsets (JIC) /
- Check the material condition and readiness of all facility rooms /
- Verify 10 copies of SPDS large sheets are available (TSC and EOF) /
- Verify that televisions, monitors, and radios located in JIC Command Room storage cabinet are operable. /

NOTE: Emergency lighting batteries have a 5-year expected lifetime. Replace with "Sure-Lite", Part #026-117-SP, from Cameron & Barkley.

NOTE: Communications headsets batteries should be changed out annually.

8. Verify current authentication codes provided by the state are located with the Plant Emergency Procedures in the following facilities:

- EOF /
- TSC /
- Control Room /
- Simulator Control Room /

9. Verify evacuation signs for general public are located as follows:

- Visitors Center Main Entrance /
- Media Center Main Entrance /
- Media Center Auditorium Entrance /
- Fitness Center Entrance /

10. Verify approximately 20 copies of Emergency Notification Forms are located as follows:

- EOF /
- TSC /
- Control Room /
- Simulator Control Room /

ATTACHMENT 3
Page 4 of 4
OSC/TSC/EOF/JIC Quarterly Checklist

Comments: _____

The inventories listed above have been completed, discrepancies identified, and actions taken to resolve differences.

Signature

Date

ATTACHMENT 4
Page 1 of 9
**Miscellaneous Supplies Guide
(TSC Room 143)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
3 bx	Thumb tacks or push pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
75	Black ballpoint pens		
1	Portable First Aid Kit outside TSC Rest Room		
2	Stenographer pads		
12	Lined pads		
10	Telephone message pads		

ATTACHMENT 4
Page 2 of 9
**Miscellaneous Supplies Guide
(TSC Room 143)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
100	Speed SNAP-A-WAY memos		
10	Logbooks		
5	CP&L telephone directories		
15	ROLM operating instructions		
5	Local telephone directories		
1 ream	Copier paper		
12	Flashlights with batteries		
24	D-cell batteries		
5	Radar lights with batteries		
5	Batteries for Radar lights		
8	AA batteries for microphones		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 4
Page 3 of 9
Miscellaneous Supplies Guide
(EOF Room 122)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
3 bx	Thumb tacks or push pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
75	Black ballpoint pens		
1	Portable First Aid Kit outside EOF Rest Room		
2	Stenographer pads		
12	Lined pads		
10	Telephone message pads		

ATTACHMENT 4
Page 4 of 9
Miscellaneous Supplies Guide
(EOF Room 122)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
100	Speed SNAP-A-WAY memos		
10	Logbooks		
5	CP&L telephone directories		
15	ROLM operating instructions		
5	Local telephone directories		
1 ream	Copier paper		
12	Flashlights with batteries		
24	D-cell batteries		
5	Radar lights with batteries		
5	Batteries for Radar lights		
8	AA batteries for microphones		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 4
Page 5 of 9
Miscellaneous Supplies Guide
(JIC Command Room/Support Room)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
2 bx	Thumb tacks or Push Pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
36	Black pens		
1	Portable first aid kit		
12	Lined pads		
2	Telephone message pads		

ATTACHMENT 4
Page 6 of 9
Miscellaneous Supplies Guide
(JIC Command Room/Support Room)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
1 each ERO position	Logbooks		
4	CP&L Directory		
1	Local Directory		
5 reams	Copier paper		
12	AA batteries		
2	Surge protectors		
5 pks	Post-it Notes		
1 pk	Chart paper		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 4
Page 7 of 9
**Miscellaneous Supplies Guide
(OSC Command Room)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
1	Dry erase marker cleaner solution		
1 box	Kim Wipes		
12	Note pads		
6	Logbooks		
6	CP&L Telephone Directories		
12	Pens		
12	Pencils		
1	Stapler		
1	Procedures - Set of Controlled PEPs		
2	Event Classification sign sets (UE, Alert, SAE, GE)		
2	No Eating/Drinking/Smoking signs		
24	Disposable shavers		
2 cans	Shaving cream		
1	Drop cord		
1	Multistrip		
6	Flashlights with batteries		
12	D-cell batteries		
2	Radar lights with batteries		
2	Batteries for Radar lights		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 4
Page 8 of 9
Miscellaneous Supplies Guide
(Teaching Auditorium)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
10	Media Handbooks		
1 box	Media Badges		
100	Public Information Brochures		
2	Clipboards		
24	Black Pens		
1 pair	Scissors		
12	Lined Pads		
1	Telephone Message Pad		
12	Dry Erase Markers (various colors)		
8	Highlighters		
2	Staplers		
2 bx	Staples		
2	Staple Removers		
1	Tape Dispenser		
2 rls	Transparent Tape		
1 rl	Duct Tape		
1 bx	Small Binder Clips		
1 bx	Medium Binder Clips		
2 bx	Regular Paper Clips		
1 bx	Rubber Bands		
2	CP&L Directory		
1	Local Directory		
2 reams	Copy Paper		

ATTACHMENT 4
Page 9 of 9
**Miscellaneous Supplies Guide
(Teaching Auditorium)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
2 pks	Post-it Notes		
1 each ERO position	Logbooks		
1	Event Classification Sign sets (UE, Alert, SAE, GE)		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 5
Page 1 of 1
BNP Fax Test Letter

DATE _____

TO: Brunswick County Warning Point
New Hanover County Warning Point
N. C. State Warning Point (NC Highway Patrol Communications Center)
Brunswick County EOC
New Hanover County EOC
NCEM Operations Center, Raleigh EOC
Coast Guard Fort Macon Station EOC
Coast Guard MSO, Wilmington EOC

FROM: Progress Energy Brunswick Nuclear Plant

This is a test of the BNP emergency facility telecopier function to off-site agencies. Upon receiving this message, please call _____ and leave a voice mail message confirming you received this fax.

Thank you

Progress Energy Brunswick Plant
Emergency Preparedness Unit

ATTACHMENT 6

Page 1 of 3

Dose Projection/Environmental Monitoring Cabinet Inventory List

Minimum Quantity	ITEM	Remarks	Verified (Initials)
2	Staplers		
2	Staple Removers		
1 box	Staples		
1	Scientific Calculator		
1	Drawing Compass		
12	Pens		
12	Pencils		
4	Dry-Erase Markers		
4	Fine-line Markers		
1 ream	Copier Paper		
6	Lined Pads		
1 box	Carbon Paper		
3	Rulers (long/regular size)		
4 rolls	Transparent Tape		
1 box	Paper Clips		
6	Highlighters		
2	Flashlights		
4	D Cell batteries		
1	Extension Cord		
3	Multi-Outlet Strips		
2	Logbooks (Dose Proj. Coord/EMTL)		
1	Computer Mouse		
1	Computer Keyboard		
1	CPLDOSE Program Diskette		

ATTACHMENT 6

Page 2 of 3

Dose Projection/Environmental Monitoring Cabinet Inventory List

REFERENCE MATERIALS	Verified (Initials)
Reg. Guide 1.109 (October 1977)	
Binder containing the following: *NUREG / CR-3011, "Dose Projection Considerations for Emergency Conditions at Nuclear Power Plants" (1983) *Stone and Webster Radiological Conseq. *NRC Accident Source Term	
Technical Basis for CPL Dose (March 1995)	
Meteorology and Atomic Energy (1968)	
Handbook of Health Physics and Radiological Health, Third Edition	
NUREG / CR-2298, USDOE, "Measurement of Release of Rad. Xenon, Krypton, and Iodine from UO2 at Typical Light Water Reactor Conditions and Comparison with Release Models", November 1981	
Rad. Decay Data Tables (2 copies), 1981	
NUREG / CR-2260, NUS 3854, "Technical Basis for Reg. Guide 1.145, Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants", 1981	
NUREG / CR-2907, "Radioactive Materials Released from Nuclear Power Plants, Annual Report 1993"	
NUREG 0771, "Regulatory Impact of Nuclear Accident Source Term Assumptions" (1981)	
NTIS Workbook of Atmospheric Dispersion Estimates (1970)	
Manual of Protective Action Guides and Protective Actions for Nuclear Incidents - EPA (1992)	
NUREG / CR-1918-ORNL/NUREG-79, "Dose Rate Conversion Factors for External Exposure to Photons and Electrons (August 1981)	
Plant Emergency Procedures (PEPs)	

ATTACHMENT 6

Page 3 of 3

Dose Projection/Environmental Monitoring Cabinet Inventory List

REFERENCE MATERIALS	Verified (Initials)
BNP Health Physics Programs Technical Report "Comparison of CPLDOSE and NRC Dose Projection Methodologies," (latest version)	
Brunswick Plant Dose Assessment Source Terms and Old Spent Fuel Assembly Inventories (latest version)	

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

ATTACHMENT 7

Page 1 of 1

Selective Signaling Individual Location Telephone Numbers

1. Warning Points (WPs)

Brunswick County	10-87
New Hanover County	10-89
State	10-86

2. Emergency Operations Centers (EOCs)

Brunswick County	10-95
New Hanover County	10-96
State Operations Center	10-93
Coast Guard MSO (Wilmington)	10-97
Coast Guard T. Macon	10-92

3. BNP Locations

Control Room	10-82
EOF	10-84
TSC	10-83
PBX Room (Rm 136)	10-85

4. Group Numbers

All Warning Points	10-22
All EOCs	10-33
All Warning Points & EOCs	10-44
All BNP Locations	10-55

ATTACHMENT 8

Page 1 of 1

Siren System Guidelines for Troubleshooting and Restoration

On receipt of various alarms, completion of repair work, or restoration to service for other reasons, the following should be used as a guideline for appropriate testing to determine if the siren is fully operable and available.

NOTE: The appropriate county Emergency Management Agency should be notified and give approval prior to any growl testing or daytime rotation testing.

Indication	Comments	Required Test
Sensor Alarms		
Master Current Sensor	Indicates the chopper motor has no power. The siren will not produce sound.	Growl Test
Master Current Sensor with False Activation	If these alarms occur together with no other indications of problems, the alarm is probably due to local electromagnetic interference (nearby radios, thunderstorms, etc.). No damage to the siren is likely to have occurred.	Interrogation (Silent Siren) Test
Rotation	This could indicate the siren did not rotate or it has a bad rotation sensor. Required testing following repair is the same in either case.	Rotation Test
Pressure	This alarm indicates the siren failed to produce sound or has a bad pressure sensor. Required testing following repair is the same in either case.	Growl Test
Siren Alarms		
Activation Failure	This alarm could indicate any of several problems from communications failure to equipment failures. Other alarms may indicate what caused the failure.	Growl Test Rotation Test
Partial Failure	This alarm will be associated with one or more of the Siren Sensor Alarms. Test as required by the Sensor Alarms.	Test for appropriate Sensor Alarms
False Activation	This alarm will be associated with one or more of the Siren Sensor Alarms. Test as required by the Sensor Alarms.	Test for appropriate Sensor Alarms
Intrusion	Indicates MOSCAD cabinet has been opened, usually for work on siren. Note: Unauthorized opening could be vandalism.	None
Site AC Voltage No damage to siren	Site power has failed. Power is lost due to a loss of power to the surrounding area with no reason to suspect damage to the siren.	Interrogation Test
Site AC Voltage with other Alarms	Site power has failed. Other parts of the system are indicating problems or power loss due to nearby lightening strike, high winds, or other severe weather.	Growl Test Rotation Test
MOSCAD Alarms		
RTU AC Voltage No other alarms	AC power to the MOSCAD cabinet has failed. No other damage to the siren is suspected.	Interrogation Test
RTU AC Voltage With other alarms	AC power to the MOSCAD cabinet has failed. Other alarms are present prior to power failure or do not clear after.	Growl Test Rotation Test
RTU Communication No other alarms	Communication between the Field Interrogation Unit (FIU) and the siren Remote Terminal Unit (RTU) has failed.	Interrogation Test
RTU Communication With other alarms	Communication between the Field Interrogation Unit (FIU) and the siren Remote Terminal Unit (RTU) has failed.	Test for appropriate Sensor or other alarm
RTU Battery	The MOSCAD Backup battery has failed. This battery does not affect operability as site AC power is required to activate the siren. The battery only maintains the MOSCAD components.	None required or, if desired, Interrogation Test

ATTACHMENT 9
Page 1 of 2
JIC Telephone Operability Checklist

Location (per OPEP-02.6.29)	Phone	Comments	Verified (Initial)
A. JIC Command Room			N/A
Table A	754-9741		
	754-9721		
	754-9742		
Table B	754-8766		
	754-6319		
	754-8781		
	Polycom Speakerphone (Soundstation)		
Table C	754-8753		
Table D	754-9784		
	754-9795		
	754-9833		
	754-9730		
	754-9842		
	754-9778		
	754-8813		
	754-8785		
Table E	754-9765		
Table F	754-9949		
	754-9933		
	754-9912		
	754-9906		
	754-9827		
	754-9820		
	755-6459		
	755-6462		

ATTACHMENT 9
Page 2 of 2
JIC Telephone Operability Checklist

Location (per OPEP-02.6.29)	Phone	Comments	Verified (Initial)
Table G	754-8824		
Table H	754-9677		
	754-9667		
	754-9688		
	754-9668		
Table J	754-9664		
	754-9665		
	754-9661		
	754-9662		
Table K	754-8745		
	754-8720		
	754-8702		
	754-8707		
Cell Phones	619-0747		
	619-0745		
B. Teaching Auditorium			N/A
	755-7409		
	755-6468		
	754-9966		

This operability checklist has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

Signature

Date

REVISION SUMMARY

Revision 25 of OPEP-04.2 consists of the following changes:

- Changed CP&L to Progress Energy on Cover Page and Attachment 5, BNP Fax Test Letter to reflect company name change.
- Bolded announcement information in Section 5.5.3 for user-friendliness.
- Added information to verify testing of generators at Telecommunications Building and microwave tower with Telecommunications as new Section 5.10.9.
- Added information to perform annual operability check of telephones in TSC, OSC, and EOF as new Section 5.10.10.
- Added information in Attachment 3, OSC/TSC/EOF/JIC Quarterly Checklist, to verify operability of televisions, monitors, and radios in JIC Command Room in Step 7.
- Added information in Attachment 3 to verify evacuation signs as new Step 9.
- Added information in Attachment 3 to verify copies of Emergency Notification Forms as new Step 10.
- Added JIC Support Room to Attachment 4, Miscellaneous Supplies Guide.
- Designated first aid kits as outside TSC or EOF rest rooms in Attachment 4 to reflect relocation of kits to improve accessibility.
- Changed "OSC Locker" to "OSC Command Room" in Attachment 4 to reflect relocation of equipment from locker to cabinets in Command Room.