CP&L

Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

SEP 0 6 2000

SERIAL: BSEP 00-0134 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

Gentlemen:

In accordance with 10 CFR 50.54(q) and 10 CFR 50, Appendix E, Carolina Power & Light (CP&L) Company is submitting revisions to Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, plant emergency procedures. CP&L has evaluated these changes, in accordance with 10 CFR 50.54(q), and has determined that they 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 in Enclosure 1. A summary of the revisions is provided in Enclosure 2. Enclosure 3 contains copies of the revised procedures.

CP&L requests that 0PEP-Appendix A, "Emergency Response Resources," included as part of Enclosure 3, be withheld from public disclosure in accordance with 10 CFR 2.790(a)(6), since disclosure of this information would constitute a clearly unwarranted invasion of personal privacy.

There are no regulatory commitments being made in this submittal. Please refer any questions regarding this submittal to Mr. Michael Alford, Supervisor - Emergency Preparedness, at (910) 457-2286.

Sincerely,

Michael Brimstead for

Warren J. Dorman
Manager - Regulatory Affairs
Brunswick Steam Electric Plant

A045

KMN/kmn

Enclosures:
1. Listing of Revised Plant Emergency Procedures
2. Summary of Revisions
3. Copies of Revised Procedures

cc (with enclosures):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Luis A. Reyes, Regional Administrator
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303-3415

U. S. Nuclear Regulatory Commission
ATTN: Mr. Theodore A. Easlick, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

cc (without enclosures):

Ms. Jo A. Sanford
Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

ENCLOSURE 1

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

Listing of Revised Plant Emergency Procedures

Procedure	Revision	Effective Date	Title
0PEP-02.1	46	08/17/00	Initial Emergency Actions
0PEP-04.1	7	08/17/00	Record Keeping and Documentation
0PEP-Appendix A	73	08/31/00	Emergency Response Resources

ENCLOSURE 2

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

Summary of Revisions

A. 0PEP-02.1, "Initial Emergency Actions," Revision 46:

1. Added references to NEI 97-03, "Methodology for Development of Emergency Action Levels," and NUREG-1022, Revision 1, "Event Reporting Guidelines: 10 CFR 50.72 and 50.73," in Section 2.0;
2. Revised the Note in Section 6.0 to clarify requirements for classification of Emergency Action Levels and associated reporting requirements; and
3. Corrected typographical errors in Section 2.0.

B. 0PEP-04.1, "Record Keeping and Documentation," Revision 7:

1. Revised Section 5.4.1.1 to update the list of contents of exercise documentation packages;
2. Revised Section 5.4.2.1 to update the list of contents of drill documentation packages;
3. Updated document retention requirements in Attachment 1, "Emergency Preparedness Documentation Requirements Matrix;"
4. Revised Section 5.5 to reflect the revision to 10 CFR 50.54(t); and
5. Deleted Attachment 2, "Post-Event Critique," to eliminate redundancy since drill, exercise, and actual event reports already contain this information.

C. 0PEP-Appendix A, "Emergency Response Resources," Revision 73, updated Emergency Response Organization listings.

ENCLOSURE 3

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

Copies of Revised Procedures

CP&L

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK NUCLEAR PLANT

I
Information
Use

PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT
0

0PEP-02.1

INITIAL EMERGENCY ACTIONS

REVISION 46

TABLE OF CONTENTS

1.0 PURPOSE

This procedure should be implemented by the Shift Superintendent or his alternate as described in Step 5.0 upon recognition of an off-normal condition to assist in determining whether an event should be classified as an emergency.

2.0 REFERENCES

2.1 0PEP-03.8.2, Personnel Accountability and Evacuation

2.2 0PEP-03.9.2, First Aid and Medical Care

2.3 0PEP-03.9.3, Transport of Contaminated Injured Personnel

2.4 0PEP-03.9.6, Search and Rescue

2.5 0PEP-03.1.3, Use of Communication Equipment

2.6 0PEP-02.1.1 Emergency Control - Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency

2.7 0RCI-06.1, Reportable Event Evaluation Criteria and Processing

2.8 0OI-01.07, Notifications

2.9 BSEP Technical Specifications

2.10 0E&RC-2020, Setpoint Determinations For Gaseous Radiation Monitors

2.11 0PFP-013, General Fire Plan

2.12 0PEP-03.4.7, Automation of Off-Site Dose Projection Procedures

2.13 BSEP Off-Site Dose Calculation Manual (ODCM)

2.14 NEI 97-03, Methodology for Development of Emergency Action Levels

2.15 NUREG-1022, Revision 1, Event Reporting Guidelines: 10 CFR50.72 and 50.73

3.0 GENERAL

3.1 This procedure should be implemented upon the identification of any off-normal condition.

3.2 Implementation of this procedure does not constitute an emergency but rather serves as a guideline for evaluation of plant conditions and comparisons with Emergency Action Levels (EALs).

3.3 Once implemented, this procedure shall remain in effect until:

3.3.1 All EAL criteria are determined to be less than event classification threshold values;

AND

3.3.2 The off-normal conditions have been resolved.

4.0 DEFINITIONS/ABBREVIATIONS

4.1 SEC - Site Emergency Coordinator

4.2 SRO - Senior Reactor Operator

4.3 Adequate core cooling - Heat removal from the reactor sufficient to prevent rupturing the fuel clad. Three viable mechanisms of adequate core cooling exist; in order of preference they are:

- Core submergence
- Steam cooling with injection of makeup water to the reactor
- Steam cooling without injection of makeup water to the reactor

4.4 Primary Containment Operability

4.4.1 All penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an operable automatic containment isolation system, or
2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except as provided in technical specifications;

4.0 DEFINITIONS/ABBREVIATIONS

4.4.2 The primary containment air lock is operable, except as provided in technical specifications;

4.4.3 All equipment hatches are closed; and

4.4.4 The sealing mechanism associated with a penetration (e.g., welds, bellows, or O-rings) is operable.

4.4.5 Containment leakage rates are within the limits of technical specifications.

4.5 FIRE - Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIREs. Observation of flame is preferred but is not required if large quantities of smoke and heat are observed.

4.6 TOXIC GASES - A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g. chlorine). Asphyxiants can also become toxic in large enough quantities (e.g. CO^2).

5.0 RESPONSIBILITIES

5.1 The Shift Superintendent or alternate has immediate and unilateral authority to carry out this procedure. He may delegate specific steps as necessary, but shall not delegate the responsibility for classification of an event.

5.2 A Senior Reactor Operator is a qualified alternate to implement this procedure if the Shift Superintendent is not available.

NOTE: Attachment 2 at the end of this procedure provides a flowchart that addresses the SEC actions once an event has been declared.

6.0 INSTRUCTIONS

NOTE: There may be cases in which a plant condition that exceeded an EAL threshold was not recognized at the time of occurrence, but is identified well after the condition has occurred (e.g., as a result of routine log or record review) and the condition no longer exists. In these cases, an emergency should not be declared. Normal reporting requirements (e.g., 10 CFR 50.72) are applicable in these cases. (ref. NEI 97-03).

NOTE: "*" denotes decisions or actions which should be entered in the Shift SRO Log.

6.0 INSTRUCTIONS

NOTE: The following actions are to be carried out in an expeditious manner for personnel and plant protection and emergency classification.

6.1 Ensure appropriate Emergency Operating Procedures and plant procedures are implemented concurrently.

6.2 If conditions require building or localized plant area evacuation:

* 6.2.1 Sound Building Evacuation alarm for 15 seconds and announce over the Plant PA System "(state emergency condition) in the (location). Evacuate the (location)."

EXAMPLE: "Attention all personnel, there is a Radiation Alarm in the Radwaste Building, Evacuate the Radwaste Building."

6.2.2 Implement 0PEP-03.8.2, Personnel Accountability and Evacuation (Building or Area Evacuation Section); direct affected personnel to report to their work group supervisor and direct work group supervisors to inform the Shift Superintendent of any personnel not accounted for within 30 minutes.

6.2.3 Repeat the PA announcement.

6.3 If personnel injuries have occurred:

6.3.1 Notify the Fire Brigade.

* 6.3.2 Determine number of persons injured and their location(s).

6.3.3 Implement 0PEP-03.9.2, First Aid and Medical Care; 0PEP-03.9.3, Transport of Contaminated Injured Personnel; or 0PEP-03.9.6, Search and Rescue as appropriate.

6.3.4 Determine whether injuries involve radioactive contamination.

6.0 INSTRUCTIONS

CAUTION

Priority should be placed on lifesaving injury treatment over the need to decontaminate. See 0PEP-03.9.2 for guidance.

6.4 If a fire has been reported:

6.4.1 Sound the fire alarm.

6.4.2 Notify the Fire Brigade.

6.4.3 Make the following PA announcement:

"Fire in (location)"
"Fire in (location)"
"Fire in (location)"

"All personnel **NOT** involved in fire fighting or direct support activities are to evacuate the involved area immediately."

"Use of the PA is now restricted for emergency communications, except as directed by the Unit SCO for operational safety concerns."

"The Fire Brigade is to muster at (designated location)."

6.4.4 Implement 0PFP-013, General Fire Plan.

NOTE: The revision dates, annotated in the top right corner of the EAL flowpaths, depict the date of the most recent change to the flowpath and the REP and 0PEP-02.1 revisions that were in effect at that time.

6.5 Using EAL flowpaths or Attachment 1, compare plant conditions (observed or indicated parameters and conditions) with the EALs and classify the emergency.

6.0 INSTRUCTIONS

6.5.1 The EAL flowpath can be entered at any point if the event is known. (Example: fuel handling accident.) This point should be noted to ensure that all other events are evaluated prior to exiting the flowpath.

If the event is not known, enter at Point A.

6.5.2 If no emergency action level threshold is exceeded go to Step 6.6.

6.5.3 If, at any time, an emergency classification is warranted, the Site Emergency Coordinator is to immediately declare the appropriate classification and carry out the associated actions in accordance with 0PEP-02.1.1, Emergency Control - Notification of Unusual Event, Alert, Site Area Emergency, General Emergency. (The highest level emergency classification for the conditions will be declared.)

6.6 Continue to monitor and evaluate plant conditions in accordance with previous steps until off-normal conditions are returned to normal.

6.7 Review RCI-06.1 and 0OI-01.07 to determine reporting requirements.

6.8 A turnover checklist may be used to ensure that all essential tasks are completed; however, such a checklist shall not be used to replace this procedure.

NOTE: When operations are restored to within normal operating parameters and safe in the judgment of the Shift Superintendent, terminate use of this procedure.

NOTE: Notify the Maintenance Rule Program Engineer of any Emergency Action Level entry due to equipment failure.

ATTACHMENT 1
Page 1 of 24
Emergency Action Levels

Emergency Action Levels

1.0 Abnormal Primary Leak Rate

1.1 Notification of Unusual Event

Reactor Coolant System total leakage greater than 25 gpm averaged over the previous 24-hour period using the sum of drywell equipment drain integrator (G16-FQ-K603) and drywell floor drain integrator (G16-FQ-K601), and the leakage rate has not been reduced to less than 25 gpm within eight hours, or plant shutdown is not achieved within required time period.

Unidentified Reactor Coolant System leakage greater than 5 gpm averaged over the previous 24-hour period using the drywell floor drain integrator (G16-FQ-K601), and the leakage rate has not been reduced to less than 5 gpm within eight hours, or plant shutdown is not achieved within required time period.

1.2 Alert

Small break LOCA with primary system leakage greater than 50 gpm. A LOCA is indicated by a significant loss of reactor inventory to the drywell resulting in increased drywell pressure, temperature, and/or sump pump usage indicated by:

- Low or falling Reactor Coolant System pressure with rising drywell pressure and temperature (C32-R608, CAC-PI-2685-1, CAC-TR-4426-1A, CAC-TR-4426-1B, CAC-TR-4426-2A and CAC-TR-4426-2B).

1.3 Site Area Emergency

- Loss of coolant accident requiring the initiation of Low Pressure Coolant Injection, Core Spray, or the Automatic Depressurization System, **AND REQUIRED FOR ADEQUATE CORE COOLING**.

OR

- Loss of two-out-of-three fission product barriers listed in Step 2.4.1 of this attachment.

1.0 Abnormal Primary Leak Rate (Cont'd)

1.4 General Emergency

- Site Area Emergency indicated above **AND** inability to provide makeup water to the Reactor Coolant System (i.e., failure of HPCI, Core Spray A and B, RHR Loops A and B, RCIC, condensate, and feedwater) as indicated by falling or low reactor vessel level with attempts to inject water not successful.

OR

- Loss of two-out-of-three fission product barriers listed in Step 2.4.1 of this attachment with a potential to lose the third barrier.

2.0 Steam Line Break or Safety/Relief Valve Failure

2.1 Notification of Unusual Event

2.1.1 Reactor Coolant System pressure ≥ 1250 psig.

OR

2.1.2 Inability to close an SRV with Reactor Coolant System pressure ≤ 900 psig.

2.2 Alert

Steam line break downstream of MSIVs or upstream of feedwater isolation valves as indicated by:

A. Reactor trip with:

1. Low RCS pressure (C32-R608 or B21-PI-R605A or B21-PI-R605B)

OR

2. Low steam pressure (C32-R609)

OR

3. Low reactor vessel water level (C32-R608)

OR

4. High steam flow (C32-R603)

AND

B. Shift Superintendent/Site Emergency Coordinator's opinion or evidence on P601 and P603 of continuing steam flow with steam line break outside of primary containment.

2.0 Steam Line Break or Safety/Relief Valve Failure (Cont'd)

2.3 Site Area Emergency

- Alert indicated above and inability to isolate the leak.

OR

- Loss of two-out-of-three fission product barriers listed in Step 2.4.1 of this attachment.

2.4 General Emergency

2.4.1 Loss of any two of the three fission product barriers below with a potential loss of the third barrier:

A. Failed fuel causing RCS activity greater than 40 μCi/ml I-131 dose equivalent

B. Loss of primary coolant boundary

1. Loss of coolant accident (Step 1.2 of this Attachment - Alert)

2. Major steam line break (Step 2.2 of this Attachment - Alert)

C. Loss of primary containment operability. A release path has been established.

3.0 Abnormal Core Conditions and Core Damage

3.1 Notification of Unusual Event

Failed fuel as indicated by:

3.1.1 Liquid

A. Reactor Coolant System (RCS) activity greater than 4.0 μCi/ml I-131 dose equivalent

B. RCS activity greater than 0.2 μCi/ml I-131 dose equivalent but less than limit above for more than 48 hours

C. RCS activity greater than 100/$\bar{E}$ μCi/ml for all isotopes

3.1.2 Gaseous

A. Steam jet air ejector off-gas radiation monitor (D12-RM-K601A and B) reading of greater than 1.2×10^4 mR/hr

B. Steam jet air ejector off-gas radiation monitor (D12-RM-K601A and B) increase of greater than 2.4×10^3 mR/hr in 30 minutes.

3.2 Alert

3.2.1 Liquid

Reactor coolant activity greater than 40 μCi/ml I-131 dose equivalent

3.2.2 Gaseous

Steam jet air ejector off-gas radiation monitor (D12-RM-K601A and B) reading of greater than 1.2×10^5 mR/hr

3.0 Abnormal Core Conditions and Core Damage (Cont'd)

3.3 Site Area Emergency

- Reactor Coolant System activity is greater than 400 μCi/ml I-131 dose equivalent.

OR

- Loss of two-out-of-three fission product barriers listed in Step 2.4.1.of this attachment.

3.4 General Emergency

3.4.1 Any two functional high range drywell radiation monitors (D22-RI-4195, 4196, 4197, and 4198) reading greater than 5000 R/hr

OR

3.4.2 Reactor Coolant System activity is greater than 4000 μCi/ml I-131 dose equivalent

OR

3.4.3 Loss of two-out-of-three fission product barriers listed in Step 2.4.1 of this attachment with a potential for loss of the third barrier.

4.0 Abnormal Radiological Effluent or Radiation Levels

4.1 Notification of Unusual Event

4.1.1 Liquid Release

Any unplanned release from the liquid waste system resulting in activity levels in the discharge canal greater than those in 10CFR20, Appendix B, Table II, Column 2.

4.1.2 Gaseous Release

Any gaseous release which exceeds the dose limit specified in ODCM 7.3.7 (i.e., exceeding the noble gas instantaneous dose rate limit as evaluated by 0E&RC-2020.

4.1.3 Any building evacuation based on confirmed radiological conditions (i.e., greater than 10 dac airborne [except precautionary evacuations]).

4.2 Alert

4.2.1 Liquid Release

Any liquid release resulting in activity concentration levels in the discharge canal that are greater than 10 times those given in 10CFR20, Appendix B, Table II, Column 2 (10 times the concentration listed in Unusual Event).

4.2.2 Gaseous Release

Any gaseous release which exceeds 10 times the dose rate limit specified in ODCM 7.3.7 (i.e., exceeding 10 times the noble gas instantaneous dose rate limit as evaluated by 0E&RC-2020.

4.0 Abnormal Radiological Effluent or Radiation Levels (Cont'd)

4.2.3 In-Plant Leak or Spill

A. Any area radiation monitor or continuous air monitor off-scale high and radiological conditions are confirmed.

B. Any site evacuation based on confirmed radiological conditions.

C. Reactor Building closed cooling water monitor (D12-RM-K606) off-scale high and high activity is confirmed by sampling.

4.3 Site Area Emergency

4.3.1 Projected dose exceeding 50 mRem Whole body (TEDE) **OR** exceeding 250 mRem Thyroid (CDE) at site boundary.

4.3.2 Measured dose rate exceeding 100 mR/hr at site boundary.

4.3.3 Measured I-131 dose equivalent concentration exceeds 3.9E-7 μCi/cc at the site boundary.

4.4 General Emergency

4.4.1 Offsite release resulting in a dose exceeding one (1) Rem Whole Body (TEDE) **OR** five (5) Rem Thyroid (CDE) at the Site Boundary as indicated by dose projection or field data.

4.4.2 Measured I-131 Dose Equivalent concentration exceeding 3.9E-6 μCi/cc at the site boundary.

5.0 Loss of Shutdown Functions: Decay Heat and Reactivity

5.1 Notification of Unusual Event

N/A

5.2 Alert

5.2.1 Complete loss of ability to maintain plant in cold shutdown:

A. Loss of essential service water loops, or Loss of RHR Loops A and B.

AND

B. Loss of Condenser Condensate System.

AND

C. Either:

1. Coolant temperature exceeds 212°F,

OR

2. Uncontrolled temperature rise approaching 212°F.

5.2.2 Failure of the Reactor Protection System to initiate and complete a scram, indicated on Panel A-5, which brings the reactor to a subcritical condition as indicated by full core display panel P603 and neutron monitoring instruments (APRM and IRM).

5.3 Site Area Emergency

Failure of the Reactor Protection System to initiate and complete a scram as indicated by Section 5.2.2 above.

AND

Failure of standby liquid control to bring the reactor to a subcritical condition.

5.0 Loss of Shutdown Functions: Decay Heat and Reactivity (Cont'd)

5.4 General Emergency

5.4.1 Site Area Emergency as indicated in Section 5.3 above lasting greater than 30 minutes.

AND

5.4.2 Loss of main condenser heat removal capability indicated by MSIVs shut or loss of vacuum on condenser vacuum indicator.

AND EITHER

A. Failure of all low pressure coolant injection trains indicated on panel P601.

OR

B. Failure of all service water trains necessary for decay heat removal indicated on panel P601 (RHR Service Water) and Panel XU2 (Nuclear and Conventional Service Water).

6.0 Electrical or Power Failures

6.1 Notification of Unusual Event

6.1.1 Inability to power either 4 kV E Bus from off-site power.

OR

6.1.2 Loss of all on-site AC power capability indicated by failure of diesel generators to start or synchronize.

6.2 Alert

6.2.1 Loss of all vital DC power.

OR

6.2.2 Inability to power either 4 kV E Bus from off-site power.

AND

A. Loss of all on-site AC power capability indicated by failure of diesel generators to start or synchronize.

6.3 Site Area Emergency

Either Alert condition in Section 6.2.1 or 6.2.2 listed above **AND** lasting longer than 15 minutes.

6.4 General Emergency

N/A

7.0 Fire

7.1 Notification of Unusual Event

Fire within the protected area lasting longer than ten minutes.

7.2 Alert

Fire which could potentially affect vital safety-related equipment.

7.3 Site Area Emergency

Any fire that impairs the operability of any vital equipment which, in the opinion of the Site Emergency Coordinator, is essential to maintain the plant in a safe condition.

7.4 General Emergency

Any fire which in the opinion of the Site Emergency Coordinator could cause massive common damage to plant systems.

8.0 Control Room Evacuation

8.1 Notification of Unusual Event

N/A

8.2 Alert

Evacuation of Control Room anticipated or required with control of shutdown established from local stations.

8.3 Site Area Emergency

Evacuation of Control Room **AND** local control of shutdown is not established in 15 minutes.

8.4 General Emergency

N/A

9.0 Loss of Monitors or Alarms or Communication Capability

9.1 Notification of Unusual Event

9.1.1 Loss of communications capability as determined by the Communication Failures Decision Matrix (Section 9.5).

9.1.2 Unplanned loss of most or all annunciators on Panels P601, P603, XU-1, XU-2, XU-3, XU-51, and XU-80 with the affected unit in Operational Condition 1, 2, or 3 for > 15 minutes;

AND

Compensatory (non-alarming) indications are available.

9.2 Alert

9.2.1 Unplanned loss of most or all annunciators on Panels P601, P603, XU-1, XU-2, XU-3, XU-51, and XU-80 with the affected unit in Operational Condition 1, 2, or 3 for > 15 minutes;

AND

Either;

- Compensatory (non-alarming) indications are **NOT** available.

OR

- A plant transient is in progress.

9.0 Loss of Monitors or Alarms or Communication Capability (Cont'd)

9.3 Site Area Emergency

9.3.1 Unplanned loss of most or all annunciators on Panels P601, P603, XU-1, XU-2, XU-3, XU-51, and XU-80 with the affected unit in Operational Condition 1, 2, or 3;

AND

- Compensatory (non-alarming) indications are NOT available.

AND

- A plant transient is in progress.

AND

- Plant safety function indications (reactor power, reactor level, reactor pressure, containment parameters) are **NOT** available.

9.4 General Emergency

N/A

9.0 Loss of Monitors or Alarms or Communication Capability (Cont'd)

9.5 COMMUNICATION FAILURES DECISION MATRIX (DECLARATION OF A NOTIFICATION OF UNUSUAL EVENT)

NOTE: See 0PEP-3.1.3 for alternate communication means.

		NOTIFICATION OF UNUSUAL EVENT
1.	Complete Loss of Selective Signaling	N
2.	Loss of NRC Emergency Notification System (ENS)	N
3.	Loss of Bell South Network	N
4.	Loss of CP&L Network (Caronet)	N
5.	Loss of Selective Signaling Phone and ENS	N
6.	Loss of Selective Signaling Phone and Bell South Network (Long Distance Calling)	N
7.	Loss of Selective Signaling Phone and CP&L Network (Caronet)	N
8.	Loss of ENS and Bell South Network	N
9.	Loss of ENS and CP&L Network (Caronet)	N
10.	Loss of BOTH Bell South and CPL Network (Caronet)	Y
11.	Loss of Selective Signaling Phone, ENS, and Bell South Network (Long Distance Calling)	N
12.	Loss of Selective Signaling Phone, ENS, and CP&L Network (Caronet)	N
13.	Loss of All Phone Communication: Selective Signaling Phone, ENS, Bell South, [Long Distance Calling] and CP&L Network (Caronet)	Y

10.0 Fuel Handling Accident

10.1 Notification of Unusual Event

N/A

10.2 Alert

10.2.1 Fuel handling accident involving damage to new or spent fuel indicated by:

A. Observation/report **AND** alarm on:

1. Process Reactor Building ventilation RAD monitor D12-K609A, B or D12-RR-R605.

OR

2. Reactor Building roof ventilation monitor CAC-AIQ-1264-3.

OR

3. Refuel floor area monitor ARM channel 1-28 or 2-28.

10.3 Site Area Emergency

10.3.1 Major damage to spent fuel indicated by:

A. Observation of substantial damage to multiple fuel assemblies, or observation that water level has dropped below the top of the fuel.

AND

B. Indications or alarms listed in Attachment 1, Section 10.2.1.A above.

10.4 General Emergency

N/A

11.0 Security Threats

11.1 Notification of Unusual Event

Declaration of a security alert as defined by the Security Contingency Plan.

11.2 Alert

Declaration of a security emergency as defined by the Security Contingency Plan.

11.3 Site Area Emergency

Physical attack on the plant involving imminent occupancy of the Control Room, auxiliary shutdown panels, and other vital areas.

11.4 General Emergency

Physical attack on the plant has resulted in unauthorized personnel occupying the Control Room and other vital areas.

12.0 Specific LCOs

12.1 Notification of Unusual Event

12.1.1 Loss of containment operability requiring shutdown by Technical Specifications and shutdown is not achieved within required time period.

12.1.2 Loss of engineered safety feature requiring shutdown by Technical Specifications and shutdown is not achieved within required time period.

12.2 Alert

N/A

12.3 Site Area Emergency

N/A

12.4 General Emergency

N/A

13.0 Hazards to Plant Operations

13.1 Notification of Unusual Event

13.1.1 Aircraft crash within site boundaries with the potential to endanger safety-related equipment.

13.1.2 Unplanned explosion within the site boundaries with the potential to endanger safety-related equipment.

13.1.3 Release of toxic or flammable gas that could endanger personnel.

13.1.4 Turbine rotating component failure causing rapid plant shutdown.

13.2 Alert

13.2.1 Explosion, aircraft crash, or missile resulting in major damage to structures housing safety-related systems.

13.2.2 Unplanned and uncontrolled entry of toxic or flammable gases into vital areas in sufficient quantities to endanger personnel or the operability of safety-related equipment.

13.2.3 Turbine failure causing penetration of its outer casing.

13.3 Site Area Emergency

13.3.1 Explosion, aircraft crash, or missile resulting in major damage to safe shutdown equipment with plant not in cold shutdown.

13.3.2 Uncontrolled entry of flammable or toxic gases into vital areas where lack of access constitutes a safety problem with plant not in cold shutdown.

13.4 General Emergency

Any major internal or external event substantially beyond design basis which could cause massive common damage to plant systems.

14.0 Natural Events

14.1 Notification of Unusual Event

14.1.1 Alarm on seismic monitor **AND** confirmation of earthquake.

14.1.2 Hurricane warning issued.

14.1.3 Tornado on site.

14.2 Alert

14.2.1 Earthquake registering greater than 0.08g on seismic instrumentation.

14.2.2 Any adverse weather conditions that causes a loss of function of two or more safety trains.

14.2.3 Tornado striking inside protected area resulting in major damage to structures housing safety-related systems.

14.2.4 Hurricane winds on site estimated:

A. ≥ 130 mph at 30 ft above ground level

B. ≥ 180 mph at 300 ft above ground level

14.3 Site Area Emergency

14.3.1 Earthquake registering greater than 0.16g on seismic instrumentation with plant not in cold shutdown.

14.3.2 Flood, low water, or hurricane surge greater than design levels or failure to protect vital equipment at lower levels and plant not in cold shutdown.

14.0 Natural Events (Cont'd)

14.3.3 Plant not in cold shutdown with hurricane winds on site estimated:

A. ≥ 130 mph at 30 ft above ground level

B. ≥ 180 mph at 300 ft above ground level

14.4 General Emergency

Any major natural event substantially beyond design basis which could cause massive common damage to plant systems.

15.0 Shift Superintendent/Site Emergency Coordinator Judgments

When any condition exists which indicates a necessity for an increased level of awareness or readiness above previous plant conditions, the Shift Superintendent/Site Emergency Coordinator should use his judgment to declare the appropriate emergency status for the plant.

15.1 Notification of Unusual Event

Plant conditions exist that warrant increased awareness by plant staff such as exceeding any Technical Specification safety limit.

15.2 Alert

Plant conditions exist that reflect a significant degradation in the safety of the reactor, but releases from this event would be small.

15.3 Site Area Emergency

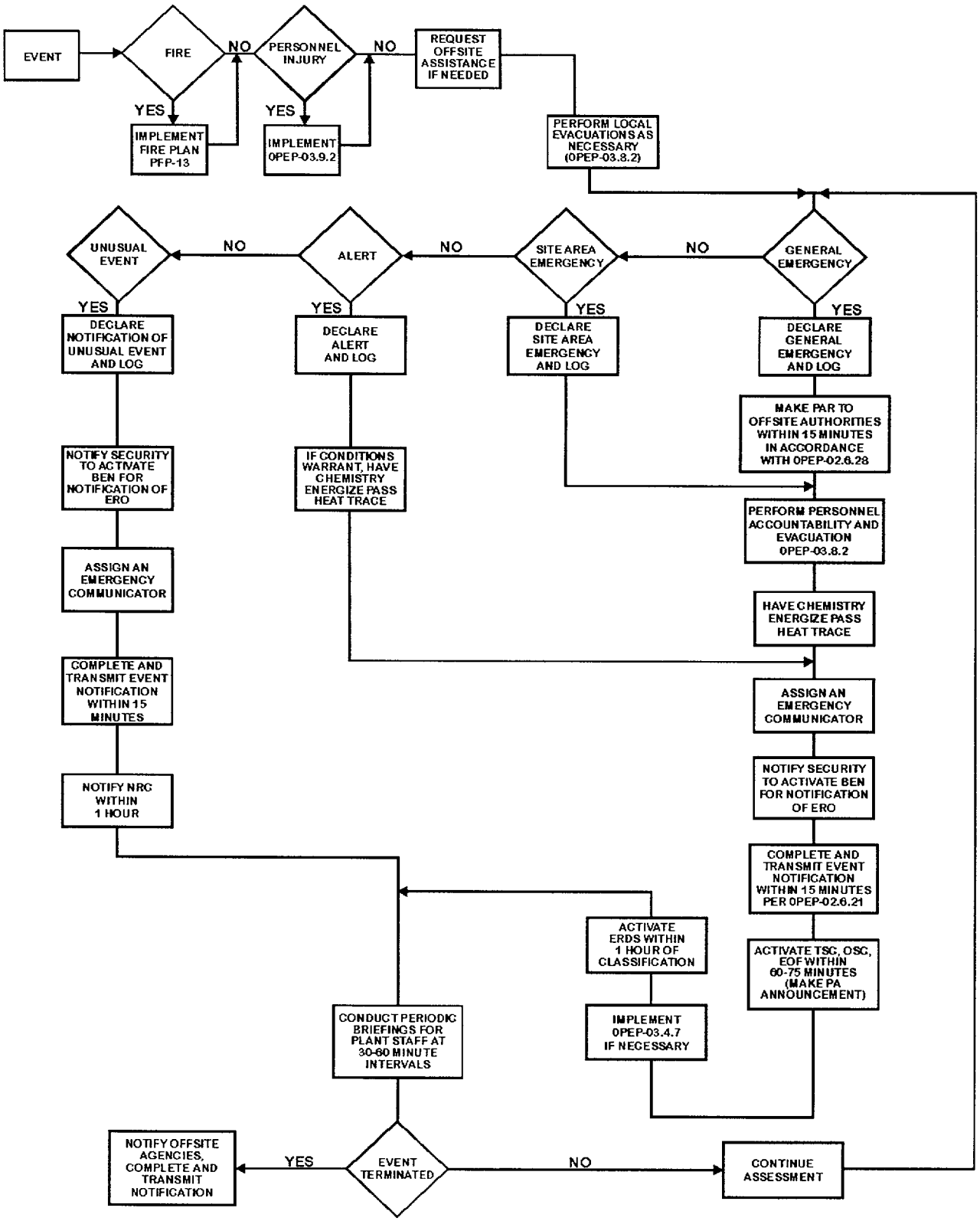
Plant conditions exist that involve major failures of equipment and that will lead to core damage. Unless corrective action is taken, significant radiation releases may occur.

15.4 General Emergency

Plant conditions exist that make a release of a large amount of radioactivity in a short time possible; any core melt situation.

ATTACHMENT 2
Page 1 of 1

Site Emergency Coordinator Actions Flow Chart



REVISION SUMMARY

Revision 46 of 0PEP-02.1 consists of the following changes:

- Reworded Note for Section 6.0 to reflect the basis provided in the NEI document for development of EAL's (NEI 97-03) and the NUREG - 1022 guidance.
- Added NEI 97-03 and NUREG-1022 in Section 2.0, References.
- Corrected typographical errors in Section 2.0, References.

NOTE: Emergency Action Level Flowcharts, Pages 1 and 2 will remain Revision 43.

CP&L

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK NUCLEAR PLANT

I
Information Use

PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT
0

0PEP-04.1

RECORD KEEPING AND DOCUMENTATION

REVISION 7

1.0 PURPOSE

The purpose of this procedure is to establish guidelines for the maintenance of records and documentation associated with the Emergency Preparedness Program.

2.0 REFERENCES

2.1 10CFR50

2.2 ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants

2.3 Reg Guide 1.88, Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records

3.0 DEFINITIONS

3.1 Record - a document that when completed, furnishes evidence of the satisfaction of a regulatory or procedural requirement. Each responsible organization identifies those documents considered to be records.

4.0 RESPONSIBILITIES

4.1 The Supervisor - Emergency Preparedness is responsible for the completion, collection, and maintenance of records and documentation of emergency planning group activities.

4.2 Emergency Response Organization (ERO) members filling emergency response facility positions are responsible for the completion and compilation of all forms, logs, and documentation relating to the responsibilities of the respective position. (Applies to drills, exercises, and actual events)

4.3 The Emergency Preparedness Representative is responsible for the collection and compilation of all documentation associated with the activation of the emergency response plan. (Applies to drills, exercises, and actual events).

5.0 INSTRUCTIONS

5.1 Records shall be legible, accurate, appropriately complete, retrievable, and have reasonable measures taken to preclude their loss.

5.2 Attachment 1, Emergency Preparedness Documentation Requirements Matrix provides a list of the documentation requirements including the procedural location.

5.3 Radiological Emergency Response Plan and Plant Emergency Procedures

5.3.1 Revisions to the Radiological Emergency Response Plan and implementing procedures (Plant Emergency Procedures) shall be provided to Document Services for retention as a QA document for the life of the plant license.

5.3.2 The documentation package should include any required safety analysis (10CFR50.59) and plan effectiveness review (10CFR50.54(q) documentation.

5.4 Exercise and Drill Documentation

5.4.1 Exercise documentation packages shall be assembled for submittal to Document Services for retention as a QA document for the life of the plant.

1. The exercise documentation package should consist of:

   a. Exercise scenario package

   b. Emergency facility logs (TSC, OSC, EOF, JIC, Control Room/simulator) and documentation

   c. Emergency Notification Forms (0PEP-02.6.21, Attachment 1)

   d. Rosters

   e. Exercise critique report

5.0 INSTRUCTIONS

5.4.2 Drill documentation packages shall be assembled for submittal to Document Services for retention as a vital document for a minimum period of six years.

1. The drill documentation package should consist of:

   a. Drill scenario package

   b. Emergency Notification Forms (0PEP-02.6.21, Attachment 1)

   c. Rosters

   d. Drill critique report

5.5 Independent Program Review (50.54t) Documentation

5.5.1 The Supervisor - Emergency Preparedness is responsible for the coordination of an independent review of the Emergency Preparedness Program to include, but is not limited to:

1. Radiological Emergency Response Plan (ERP)
2. Plant Emergency Procedures (PEP)
3. Emergency Preparedness Training Program
4. Program Maintenance
5. Facilities and equipment
6. Interface with state and local governments

5.0 INSTRUCTIONS

NOTE: An independent review shall be performed by persons who have no direct responsibility for the implementation of the emergency preparedness program either:

- At intervals not to exceed 12 months, or
- As necessary, based on an assessment by the licensee against performance indicators, and as soon as reasonably practicable after a change occurs in personnel, procedures, equipment, or facilities that potentially could adversely affect emergency preparedness, but no longer than 12 months after the change.

In any case, all elements of the emergency preparedness program must be reviewed at least once every 24 months.

5.5.2 The results of independent reviews shall be reviewed and corrective actions initiated.

5.5.3 The results of independent reviews, along with recommendations for improvements, shall be documented and reported to corporate management, plant management, and involved off-site organizations (county, state, and federal agencies).

5.5.4 The review documentation package shall be forwarded to Document Services for retention as a QA document for a minimum of five years.

5.6 Emergency Plan Activation Documentation

5.6.1 Following any activation of the Radiological Emergency Response Plan for actual events, the Supervisor - Emergency Preparedness shall ensure that the plant response is adequately documented.

5.0 INSTRUCTIONS

5.6.2 For emergency classification in which emergency facilities are not activated (i.e., NOUE) the following material should be compiled.

1. Executive summary (including timeline)
2. Notifications, including notification checklists, sent to state and local agencies.
3. Operations shift logs (Shift Superintendent/Supervisor)
4. Pertinent news releases
5. Post-event critique results
6. Any additional information as determined by conditions

5.6.3 For emergency classification in which emergency facilities are activated, the following additional materials should be compiled.

1. Official logs and documentation from all facilities (TSC, OSC, EOF, and JIC).

5.6.4 The event documentation package shall be compiled and forwarded to Document Services for retention as a QA document for the life of the plant plus 10 years.

5.7 Miscellaneous Records Documentation

5.7.1 The Emergency Preparedness Documentation Requirements Matrix (Attachment 1) provides the following information for emergency preparedness records and retention:

1. Record and type
2. Retention requirement
3. Location for retention
4. Associated procedure

ATTACHMENT 1
Page 1 of 2

Emergency Preparedness Documentation Requirements Matrix

RECORD	RECORD TYPE	RETENTION	LOCATION	PROCEDURE
Emergency Plan and Implementing Procedure (PEP) Revisions	QA	Plant Life	Vault	This procedure
Letter of Agreement Review Documentation	QA	2 years	Vault	0PEP-04.8
Annual Emergency Plan Review with PNSC Documentation	QA	Life	Vault	0PEP-04.8
Annual EAL Review with State and County Documentation	QA	2 years	Vault	0PEP-04.8
Siren Tests Documentation				
• Silent	Vital	2 years	Vault	0PEP-04.2
• Growl	Vital	5 years	Vault	0PEP-04.2
• Full Volume	Vital	5 years	Vault	0PEP-04.2
• Annual Study	Vital	6 years	Vault	This procedure
FEMA Siren Report Documentation	QA	Life	Vault	0PEP-04.2
Emergency Facility Quarterly Inventory Documentation	Vital	2 years	EP files	0PEP-04.2
Emergency Facility Quarterly Readiness Check Documentation	Vital	2 years	EP files	0PEP-04.2
Communication Tests Documentation	QA	2 years	Vault	0PEP-04.2

Emergency Preparedness Documentation Requirements Matrix

RECORD	RECORD TYPE	RETENTION	LOCATION	PROCEDURE
Drill package Documentation (including)	Vital	6 years	Vault	0PEP-04.3
• Post-Accident Sampling	Vital	6 years	Vault	0PEP-04.3
• Health Physics	Vital	6 years	Vault	0PEP-04.3
• Radiological Monitoring	Vital	6 years	Vault	0PEP-04.3
• Augmentation	Vital	6 years	Vault	0PEP-04.3
• Medical	Vital	6 years	Vault	0PEP-04.3
Exercise Documentation	QA	Life	Vault	This procedure
Emergency Planning Information Annual Dissemination Package Documentation	QA	2 years	Vault	0PEP-04.5
Independent Program Audit (50.54(t) Documentation	QA	Life	Vault	This procedure
Media Training Documentation Package	Vital	6 years	Vault	0PEP-04.3
Emergency Plan Activation Documentation	QA	Life + 10 years	Vault	This procedure
Program Self Assessment Documentation	Vital	5 years	Action Tracking (PassPort)	This procedure and CAP-NGGC-0201
Equipment Repair Documentation	Vital	2 years	EP files	0PEP-04.2
Monthly Pager Test Documentation	Vital	2 years	Vault	0PEP-04.2
Off-Site Training Documentation	Vital	2 years	Vault	0PEP-04.3
Emergency Kit Inventory Documentation	QA	Life + 10 years	Vault	0PEP-04.6

REVISION SUMMARY

Revision 7 of 0PEP-04.1 consists of the following changes:

- Re-worded Section 5.4.1.1.e to reflect that original exercise critique report will be retained.
- Deleted Section 5.4.1.1 item f to eliminate redundancy (NRC exercise report is transmitted to Document Services as part of NRC inspection report).
- Added additional information to drill/exercise documentation package contents in Sections 5.4.1.1 and 5.4.2.1 to be consistent with Required Records List (RRL) database and renumbered steps, as appropriate.
- Deleted redundant information in Attachment 1 to correct clerical error and corrected self assessment documentation column to reflect implementation of Action Tracking and CAP-NGGC-0201 (self assessment procedure).
- Reworded Section 5.5 to reflect revision to 10CFR50.54(t) requirement.
- Deleted Attachment 2, Post-Event Critique, because of redundancy with drill/exercise/actual event reports which already contain this information and are retained in accordance with this procedure.