

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
PLANT OPERATING MANUAL
VOLUME 2
PART 5

PROCEDURE TYPE: Plant Emergency Procedure
NUMBER: PEP-270
TITLE: Activation and Operation of the Emergency Operations Facility

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1.0 PURPOSE

1. This procedure implements Section 2.4 and Section 3.5 of the Emergency Plan PLP-201.
2. It specifies the actions taken by Emergency Response Organization (ERO) personnel who report to the Emergency Operations Facility (EOF).

2.0 INITIATING CONDITIONS

1. An Alert or higher classification has been declared.
2. A decision has been made to activate the EOF.

3.0 PROCEDURE STEPS

NOTE: The steps in the checklists may be performed in any order, or more than once, as necessary.

1. Attachments 1-23 are to be used as guidance for the positions listed below.
2. If an action is not appropriate under existing conditions or was not necessary for the event enter N/A when completing documentation for submittal.
3. Attachment 24 is used by the EOF Logkeeper to log in/out of the ERFIS facility logs.
4. Attachment 25 is used by the ERFIS Operator to display ERFIS data.

3.0 PROCEDURE STEPS (continued)

IF YOUR ERO POSITION IS:	REFER TO POSITIONAL FORMS
EMERGENCY RESPONSE MANAGER (ERM)	PEP-270 Att 1 PEP-110 Att 4
EMERGENCY PREPAREDNESS ADVISOR	PEP-270 Att 2 PEP-110 Att 4
RADIOLOGICAL CONTROL MANAGER (RCM)	PEP-270 Att 3
TECHNICAL ADVISOR	PEP-270 Att 4
DOSE PROJECTION TEAM LEADER (DPTL)	PEP-270 Att 5
DOSE PROJECTION TEAM MEMBER	PEP-270 Att 6
ENVIRONMENTAL FIELD COORDINATOR (EFC)	PEP-270 Att 7
ENVIRONMENTAL TEAM MEMBER	PEP-270 Att 8
EOF HP TECHNICIAN	PEP-270 Att 9
COMMUNICATIONS MANAGER (CM)	PEP-270 Att 10 PEP-310 Att 1-5
EMERGENCY COMMUNICATOR-STATE/COUNTY	PEP-270 Att 11
EMERGENCY COMMUNICATOR-CORP COMM/JIC	PEP-270 Att 12
NEWS COORDINATOR	PEP-270 Att 13
REP - STATE/COUNTY EOC	PEP-270 Att 14
TECHNICAL ANALYSIS MANAGER (TAM)	PEP-270 Att 15
EOF SENIOR REACTOR OPERATOR	PEP-270 Att 16
EOF ACCIDENT ASSESSMENT TEAM (EOF AAT)	PEP-270 Att 17
EOF ERFIS OPERATOR	PEP-270 Att 18 PEP-270 Att 25
ADMINISTRATIVE AND LOGISTICS MANAGER (ALM)	PEP-270 Att 19
ADMINISTRATIVE TEAM LEADER	PEP-270 Att 20
EOF LOGKEEPER	PEP-270 Att 21 PEP-270 Att 24
ASSEMBLY AREA LEADER (AAL)	PEP-270 Att 22
EOF TELECOM/COMPUTER SUPPORT	PEP-270 Att 23

4.0 GENERAL

1. Prior to activation, the SEC-MCR may assign support function to the EOF as deemed necessary to relieve on-shift personnel.
2. The EOF must meet minimum staffing requirements for activation prior to the ERM relieving the SEC-MCR of his portion of emergency management responsibilities. Both the TSC and EOF will need to activate together.
3. If a position with an augmentation time requirement is not filled, a supervisory position may fulfill the responsibilities provided they are trained to perform the assigned activities of that position. For example: the Communications Manager could perform the duties of the State and County Communicator .

4.0 GENERAL(continued)

4. Logkeeping

- a. Individual logs and facility logs are legal records of activities that occurred during an emergency. It is vital that they are as complete as possible.
- b. Logs should include such information as:
 - 1) Times of major events and subsequent actions taken (such as, change in emergency classifications, fission product barrier status, discovery of an unplanned radiological release).
 - 2) Times and content of important communications with other members of the ERO that are related to major events (such as, decisions made during turnover or routine briefings and subsequent actions taken).
 - 3) Specific actions taken to mitigate equipment failures, contain chemical or radiological spills or fires, and so forth.
 - 4) Specific references to Emergency Radiation Work Permits, clearances, procedure deviations authorized, emergency radiation exposures authorized, and so forth.
 - 5) All records shall be made by black indelible means, such as ink or typing.
 - 6) Corrections shall be made by drawing a single line through and initialing and dating the incorrect entry.

c. Preparation of Activity Logs

- 1) Initiate 'Log' as follows:
 - DATE: Enter the date that the log sheet is initiated.
 - PAGE OF : Enter "1" on the first page and sequential numbers on the following pages as they are used.

Logkeeping (continued)

- 2) Enter chronologically those events that are pertinent to the particular individual or organizations:
 - TIME: Record the time (using the 24 hour clock) that a message or information was received or action was taken.
 - SUMMARY OF ACTIVITY PERFORMED: Briefly record the incident, message, or order received or transmitted. Indicate the time of the incident and actions taken.
- 3) Upon relief from the position, or termination of the emergency, complete the log as follows:
 - PAGE OF : Enter the total number of pages used at the top of each page (that is, Page 1 of 12, Page 2 of 12, and so forth).
 - NAME AND SIGNATURE: Check the log for completeness, then in the Comments Section of the last page used in the log, print and sign your name.
- 4) The person relieving the position will initiate and maintain a new log and any previously prepared logs to allow for continuity of the position.
- 5) Upon termination of the emergency or exercise/drill, provide all completed logs to Emergency Preparedness.

5.0 REFERENCES

5.1 Emergency Plan (PLP-201) References

1. Section 2.4, "Assignment of Responsibilities"
2. Section 3.5, "Emergency Operations Facility"

5.0 REFERENCES (continued)

5.2 Referenced Plant Emergency Procedures

1. PEP-110, "Emergency Classification and Protective Action Recommendations"
2. PEP-310, "Notifications and Communications"
3. PEP-330, "Radiological Consequences"
4. PEP-500, "Recovery"

5.3 Other References

1. EPL-001, "Emergency Phone List"

6.0 DIAGRAMS/ATTACHMENTS

See Table of Contents

EMERGENCY RESPONSE MANAGER CHECKLIST

Position Function: Provide overall authority for the direction and management of the CP&L response to an incident requiring implementation of the HNP Emergency Plan and command and control of the offsite emergency response.

Responsibility/Activity



1. Assume the Position of Emergency Response Manager
 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Determine if restrictions on eating and drinking are in effect and ensure EOF personnel are aware of the restrictions.
 - e) Perform a formal relief when permanently relieving another ERM.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - f) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Direct the EOF Logkeeper to maintain a facility log

EMERGENCY RESPONSE MANAGER CHECKLIST

Responsibility/Activity



3. Activate the Facility

- a) Assume command and control of the EOF.

NOTE: Formal authorization must be provided by the ERM when filling an EOF position with an individual not listed on the active ERO roster (EPL-001).

- 1) Direct the arriving EOF staff to prepare for facility activation and the assumption of emergency response duties (offsite and industry notifications, emergency classifications, dose assessment and PARs, and long term accident assessment and mitigation).

- Direct the EOF SRO to monitor fission product barrier and plant status.
- Direct the RCM to monitor radioactive release pathways.

- 2) Ensure communications have been established with the TSC, State and County EOCs, and Corporate Communications (or the JIC as applicable).

- 3) Contact the SEC-TSC to discuss the status of plant conditions and coordinate preparation for turnover of responsibilities from the SEC-CR.

- 4) Conduct a turnover conference call with the TSC and MCR (utilizing PEP-110 Attachment 4) to relieve the SEC-CR of the following responsibilities:

- Formal notifications and communications with State and County officials.
- Offsite Protective Action Recommendations.
- Offsite dose projection.
- Coordination of Environmental Monitoring Teams.
- Notifications to other offsite organizations.
- Approval of CP&L press releases.
- Additional augmentation of the CP&L ERO.

EMERGENCY RESPONSE MANAGER CHECKLIST

Responsibility/Activity



- b) Ensure the other facilities and response organizations are notified of the EOF activation.
4. Evaluate the adequacy of the EOF staff for activation. Minimum staffing includes:
- ERM
 - Emergency Preparedness Advisor
 - Radiological Control Manager
 - Dose Projection Team Leader
 - Environmental Monitoring personnel (4)
 - EOF HP Tech
 - Communications Manager
 - Emergency Communicator - State/County
 - News Coordinator
 - Technical Analysis Manager
 - Admin and Logistics Manager
5. Review and Approve Emergency Notification Forms (non-delegable)
- NOTE:** Upgrading classification of the emergency should be performed as soon as verification of changed conditions is established but should not be beyond 15 minutes of recognition.
- a) Review plant conditions and provide concurrence with the SEC-TSC on changes to the classification level.
 - b) Ensure formal initial and follow-up notifications are routinely provided to State and local agencies.
 - 1) Review, edit and approve messages prior to release.
 - 2) Ensure the CM performs notifications to the State and County authorities whenever an emergency is reclassified.
- NOTE:** Where lasting damage has occurred to the fission product barriers or to safety systems, transition to recovery based upon the criteria contained in PEP-500 rather than simply downgrading the emergency.
- c) Consult with State and County authorities prior to downgrading or terminating from a General Emergency.

EMERGENCY RESPONSE MANAGER CHECKLIST

Responsibility/Activity

✓

6. Determine Appropriate PARs (non-delegable)

- a) Determine the appropriate PAR per PEP-110 Section 3.2.
- b) Reevaluate the adequacy of PARs when plant conditions, dose projection, meteorological, or environmental measurements change.
- c) Confer with State authorities prior to PAR issuance if possible.

NOTE: • News releases do not have to be approved by the ERM if they contain only the JIC activation time, media/public inquiry telephone numbers, or media briefing times.

- These non-technical news releases are prepared by the JIC Director once the JIC is activated.

7. Review and approve CP&L news releases prior to issuance (non-delegable).

8. Authorize offsite HNP emergency worker exposures > 5 Rem TEDE or entry into fields > 25 Rem/Hr.

9. Authorize the administration of KI to offsite HNP emergency workers when calculated or estimated doses to the thyroid will exceed 50 rem CDE.

10. Review and approve the Severe Accident Management Strategy recommended by the TSC.

- Evaluate the offsite consequences.

11. Conduct periodic briefings of State and local officials in the EOF on plant conditions and response activities.

- a) Ensure verbal updates on the emergency condition are provided to the State and Counties at approximately 30 to 60 minute intervals, or more frequently as conditions warrant.
- b) Consult with Wake County or State personnel if decontamination of site personnel and/or vehicles can not be achieved.
- c) Notify Wake County or State personnel of the evacuation of contaminated site individuals and determine if monitoring and decontamination stations are in place.

EMERGENCY RESPONSE MANAGER CHECKLIST

Responsibility/Activity

- d) Notify Wake County or State personnel to discuss whether relocation of site personnel to an off site assembly area should occur.
- 12. Assign personnel to prepare information to brief the NRC Site Team upon their arrival.
- 13. Request assistance from Federal agencies in support of HNP response efforts.
- 14. Maintain communications with the SEC-TSC to discuss plant conditions and on and off site response actions.
- 15. Ensure the CM notifies appropriate offsite plant support agencies.

 - a) Ensure the CM notifies INPO and ANI within 4 hours of the declaration of an Alert or higher classification level.
 - b) Ensure the CM notifies Nuclear Mutual Limited of any fire damage to HNP equipment.
 - c) Approve notifications to INPO and ANI prior to transmission.
- 16. Establish Time Periods for and Conduct Periodic Facility Briefings

 - a) Conduct briefings using the Event Information Worksheet (PEP-110 Attachment 4) as a guide.
 - b) Establish briefing periods at approximately 30 to 60 minute intervals or as conditions change.
 - c) Instruct the EOF Logkeeper to keep track of briefing times and to provide prompts when briefings are due.
- 17. Request any materials or supplies not available on site from the ALM or Admin Team.

 - a) Direct the ALM to develop shift relief schedules for CP&L ERO personnel.
 - b) Coordinate onsite requests for support and resources with offsite services and organizations.
 - c) Determine the need for additional assistance and direct the ALM/TAM to coordinate with the appropriate agency or company.

EMERGENCY RESPONSE MANAGER CHECKLIST

Responsibility/Activity

18. Conduct Recovery Operations per PEP-500 when appropriate.



19. Termination of the emergency



- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

EMERGENCY RESPONSE MANAGER CHECKLIST - EOF CHECKLIST

INTRAFACILITY BRIEFING GUIDELINE

DATE:
TIME:

RECAP CURRENT CONDITONS

- CLASSIFICATION
- PLANT CONDITIONS
- OFFSITE ACTIVITIES AND PRIORITIES
- PERSONNEL SAFETY ISSUES

RADIOLOGICAL	
<ul style="list-style-type: none"> • Release • PARs • Plant conditions • KI Issuance 	NOTES:
COMMUNICATIONS/NOTIFICATIONS	
<ul style="list-style-type: none"> • Local • Regional • National 	NOTES:
ENGINEERING	
1) Mitigating Activities <ul style="list-style-type: none"> • strategies • priorities 2) Equipment <ul style="list-style-type: none"> • OOS • Equipment Needs 	NOTES:
LOGISTICS	
<ul style="list-style-type: none"> • Onsite resources/Offsite resources • Response teams • Lodging, transportation, plant access 	NOTES:
OFFSITE	
<ul style="list-style-type: none"> • Facility Status • Actions/Response 	NOTES:

SET EXPECTATIONS

- ANTICIPATE OFFSITE CONDITIONS
- CRITICAL EOF ACTIVITIES
- OTHER AREAS OF FOCUS

EMERGENCY PREPAREDNESS ADVISOR CHECKLIST

Position Function: Provide guidance and information on the implementation of the Emergency Plan and procedure activities.

Responsibility/Activity



20. Assume the position of Emergency Preparedness Advisor.

- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Perform a formal relief when permanently relieving another EP Advisor.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

21. Maintain a log of activities using your checklist log.



22. Ensure that ERO personnel are performing their duties as defined by the appropriate PEPs.



- a) Assist with the activation of the ERFs.
 - 1) Verify that the EOF Security Guard is notified of the EOF activation announcement.
- b) Assist the ALM in arranging the arrival, transportation, lodging, plant access, and food for personnel involved in the emergency.
- c) Review the checklists of key EOF personnel to verify required activities are completed and assist as necessary.

EMERGENCY PREPAREDNESS ADVISOR CHECKLIST

Responsibility/Activity

23. Coordinate the arrival of NRC and State/Local representatives with the ALM.
- a) Support the briefing of the NRC Site Team using the Event Information Worksheet as a guide (PEP-110 Attachment 4).
 - b) Assist with the integration of State/NRC representatives within the facility.
 - c) Familiarize off site officials with work locations, phones, etc.
24. Monitor status boards for accuracy.
25. Participate in facility staff briefings.
26. Request any materials or supplies not available on site from the ALM or Admin Team.
27. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

EMERGENCY PREPAREDNESS ADVISOR CHECKLIST

LOG

EOF	DATE:	PAGE OF
TIME	COMMENTS	

Upon relief, or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section .

RADIOLOGICAL CONTROL MANAGER CHECKLIST

Position Function: Direct and supervise the offsite radiological assessment and monitoring emergency response actions.

Responsibility/Activity



1. Assume the position of Radiological Control Manager.
 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Evaluate the need for dosimetry and inform the EOF-ERM.
 - 1) Direct personnel to obtain dosimetry from the supply cabinet when appropriate.
 - 2) Do not delay facility activation to issue dosimetry.
 - d) Determine if restrictions on eating and drinking are in effect and ensure the Emergency Response Manager and EOF personnel are aware of the restrictions.
 - e) Perform a formal relief when permanently relieving another RCM.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - f) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Maintain a log of activities using your checklist log.
3. Facility Activation
 - a) Relieve the MCR of dose assessment responsibilities as soon as possible.

RADIOLOGICAL CONTROL MANAGER CHECKLIST

Responsibility/Activity

✓

NOTE: Emergency release is defined as radiological release which is the result of ,or associated, with the event.

- b) Determine if a release is in progress
- 4. Develop and provide recommendations for EAL and classification level changes based on radiological considerations to the ERM.

 - a) Compare dose projection and field survey results with EAL criteria to determine the impact on the existing classification level.
 - b) Notify the ERM of any EALs effected by changes in radiological conditions.

- 5. Develop and provide recommendations for offsite PARs based on radiological considerations to the ERM.

 - a) Document HNP PARs whenever a General Emergency is declared.

- 6. Coordinate and direct the dose assessment and environmental monitoring efforts.

 - a) Supervise the activities of the Technical Advisor and the Dose Projection Team Leader.
 - b) Ensure the Emergency Notification System (ETS) is manned when requested by the NRC (principally by the Technical Advisor position).
 - c) Determine the periodicity of dose projection calculations.
 - d) Analyze dose assessment and environmental information to determine any actual or potential offsite consequences of the event.
 - 1) Ensure environmental monitoring is performed to confirm dose projections.
 - 2) Verify that projected dose is compared with actual readings.
 - e) Conduct periodic briefings with the ERM to discuss the status of offsite radiological information and assessments.
 - f) Compare dose assessment and environmental monitoring efforts with the State Division of Radiation Protection in the State EOC and/or in the EOF.

RADIOLOGICAL CONTROL MANAGER CHECKLIST

Responsibility/Activity



- g) Compare dose assessment and environmental monitoring efforts with the NRC Environmental Dose Assessment Coordinator once the NRC Site Team is in the EOF.
- 7. Determine and direct the requirements for offsite emergency exposure and contamination controls.

 - a) Evaluate the need for and coordinate the authorization of the allowance of offsite HNP emergency worker exposures > 5 Rem TEDE or entry into radiation fields greater than 25 rem/hr.
 - b) Coordinate the authorization of the administration and issuance of KI to offsite HNP Emergency workers when calculated or estimated doses to the thyroid will exceed 50 rem CDE.
 - c) Determine the appropriate use of protective clothing and respiratory protection equipment.
 - d) Ensure personnel decontamination activities are conducted as necessary.
 - e) Ensure appropriate bioassay procedures are implemented or developed to support the event.

- 8. Determine and direct EOF habitability controls

 - a) Ensure habitability surveys are performed in the EOF as per PEP-330.
 - b) Ensure EOF food and drinking water supplies are consumable.
 - c) Ban eating, drinking, smoking, and chewing at the GE declaration.

- 9. Ensure the activation of the EOF ventilation system, if needed.
- 10. Maintain communications with the Radiological Control Director to discuss radiological conditions and on and off site response actions.

 - a) Periodically contact the RCD to provide updates on new dose projections, results of environmental monitoring and to provide technical assistance as needed.

RADIOLOGICAL CONTROL MANAGER CHECKLIST

Responsibility/Activity

✓

11. Request any materials or supplies not available on site from the ALM or Admin Team.
- a) Request assistance for radiological monitoring support from outside sources as necessary.
 - b) Coordinate with the ALM to provide additional environmental monitoring team members to support State monitoring activities upon request from the State Division of Radiation Protection.
12. Determine and establish controls for the storage and shipment of radioactive waste generated as a result of the event.
- a) Coordinate the design of special packaging required for the transport of radioactive wastes resulting from the emergency.
13. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

RADIOLOGICAL CONTROL MANAGER CHECKLIST

LOG

EOF	DATE:	PAGE OF
TIME	COMMENTS	

Upon relief, or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

TECHNICAL ADVISOR CHECKLIST

Position Function: Assist the RCM in fulfilling the radiological assessment and monitoring functions.

Responsibility/Activity



1. Assume the position of Technical Advisor.

a) Sign in on the facility organization chart.

b) Obtain the positional notebook/binder from the storage area.

c) Obtain dosimetry.

d) Perform a formal relief when permanently relieving another Technical Advisor.

1) Review the RCM's activity log.

2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.

e) Inform the RCM when temporarily leaving the work area (such as to the restroom).

1) Designate an individual to answer the phones while away.

2) Upon return, obtain a briefing on any events which have occurred while away.

2. Assist the RCM and DPTL in expediting the initial activities necessary to make the EOF ready for activation.

NOTE: Facility status boards are formatted to support NRC ETS information communications.

3. Upon request from the NRC, continuously man the ETS line and provide radiological information using the status boards as a guide.

4. Request any materials or supplies not available on site from the ALM or Admin Team.

TECHNICAL ADVISOR CHECKLIST

Responsibility/Activity



5. Termination of the emergency



- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

DOSE PROJECTION TEAM LEADER CHECKLIST

Position Function: Coordinate and supervise the activities of the dose projection and environmental monitoring personnel and the EOF HP Technician.

Responsibility/Activity

✓

1. Assume the position of Dose Projection Team Leader.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Perform a formal relief when permanently relieving another Dose Projection Team Leader.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Maintain a log of activities using your checklist log.
3. Facility activation.
- a) Relieve the MCR of dose projection responsibilities as soon as possible.

NOTE: Emergency Release is defined as a radiological release which is as a result of, or associated with, the event.

- b) Determine if a release is in progress.
- c) Ensure communications with the RCD are operable.
- d) Assign personnel to track and post meteorological and radiological data in the main room of the EOF.

DOSE PROJECTION TEAM LEADER CHECKLIST

Responsibility/Activity



- 4. Perform offsite dose assessment to determine actual or potential consequences of the event.

 - a) Assign personnel to conduct source term and offsite dose calculations.
 - b) Obtain current and forecast meteorological information.
 - 1) Obtain met data from the plant met system or the contracted meteorological services vendor.
 - c) Obtain field survey and sample data necessary for dose projection activities from the Environmental Field Coordinator.
 - d) Provide results of offsite dose analysis consistent with the information necessary to develop dose based PARs.
 - 1) Prepare an Offsite PAR Worksheet for the RCM at the declaration of a General Emergency.
 - e) Perform dose calculations which are based on actual and adverse meteorological conditions. (Adverse meteorological looks at the worst case met conditions; 'G' stability class and wind speed of 1.0 mph.)
 - f) Document and post dose projection results and meteorological data following RCM review and approval.
 - g) Recalculate actual dose projections at least once per hour or whenever significant radiological or meteorological changes occur.

- 5. Ensure habitability is established and periodic monitoring is conducted in the EOF as necessary.
- 6. Ensure personnel monitoring is conducted in the EOF as necessary.
- 7. Develop a field team deployment strategy to coordinate dose assessment and environmental monitoring activities.
 - a) Ensure the Environmental Field Coordinator directs the field teams in a manner which will provide the data necessary for dose projection activities.
 - b) Ensure the Environmental Field Coordinator has taken appropriate radiological precautions when directing the field team activities.

DOSE PROJECTION TEAM LEADER CHECKLIST

Responsibility/Activity

- | | |
|---|-------------------------------|
| | ✓
<input type="checkbox"/> |
| 8. Control the specified issuance of KI to offsite emergency workers when calculated or estimated doses to the thyroid will exceed 50 rem CDE. | <input type="checkbox"/> |
| a) Direct team members to administer KI. | |
| b) Record KI issuance information. | |
| c) Evaluate iodine uptakes for persons issued KI. | |
| 9. Conduct frequent discussions with State and Federal counterparts colocated in the EOF to compare information and coordinate monitoring activities. | <input type="checkbox"/> |
| 10. Request any materials or supplies not available on site from the ALM or Admin Team. | <input type="checkbox"/> |
| 11. Termination of the emergency | <input type="checkbox"/> |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

DOSE PROJECTION TEAM LEADER CHECKLIST

LOG

EOF	DATE:	PAGE OF
TIME	COMMENTS	

Upon relief, or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

DOSE PROJECTION TEAM MEMBER CHECKLIST

Position Function: Perform dose assessment as directed by the Dose Projection Team Leader.

Responsibility/Activity

✓

1. Assume the position of Dose Projection Team Member.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Perform a formal relief when permanently relieving another Dose Projection Team Member.
 - 1) Review the DPTL's activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- e) Inform DPTL when temporarily leaving the work area (such as to the restroom).
2. Activate the dose assessment computer model.
3. Provide dose assessment results to the Dose Projection Team Leader.
- a) Based on actual meteorological data
- b) Based on adverse met (Adverse meteorological looks at the worst case met conditions; 'G' stability class and wind speed of 1.0 mph.)
4. Perform additional dose assessment related duties as instructed by the Dose Projection Team Leader.
5. Request any materials or supplies not available on site from the ALM or Admin Team.
6. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

ENVIRONMENTAL FIELD COORDINATOR CHECKLIST

Position Function: Coordinate and supervise the offsite radiological environmental monitoring emergency response actions.

Responsibility/Activity

✓

- 1. Assume the position of Environmental Field Coordinator.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another Environmental Field Coordinator.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

- 2. Maintain a log of activities using your checklist log.
- 3. Obtain meteorological data from the DPTL, ERFIS or the contracted meteorological services vendor.
- 4. Supervise the activities of the plant Environmental Monitoring Teams.
 - a) Ensure field team personnel are properly briefed and dispatched.
 - b) Position teams downwind of the plant to take initial surveys prior to any release if possible.
 - c) Implement the field team deployment strategy to obtain representative environmental information.

NOTE: Locations nearest the site boundary should have priority for environmental surveys.

ENVIRONMENTAL FIELD COORDINATOR CHECKLIST

Responsibility/Activity

✓

- 1) Direct field teams to survey the plume dose rates at various distances.
 - 2) Attempt to determine plume width at various distances.
 - 3) Obtain air samples of the plume for iodine analysis as soon as feasible.
 - 4) Direct monitoring and sampling to assess ground deposition after plume passage.
 - d) Ensure dispatched teams are periodically briefed on plant conditions.
 - e) Maintain accountability of dispatched field team personnel.
 - 1) Maintain a list of personnel assigned to each environmental monitoring team and their locations.
 - f) Control the specified issuance of KI to field team personnel.
 - 1) Direct team members to administer KI, as per PEP-330.
 - 2) Record KI issuance information.
 - 3) Evaluate iodine uptakes for persons issued KI.
 - g) Determine and direct the placement of emergency environmental TLDs.
 - h) Inform the DPTL if additional personnel or resources are needed.
 5. Coordinate offsite field survey and monitoring efforts with the State to maximize resources.
 - a) Provide meteorological, radiological and release information to State environmental monitoring personnel.
 6. Coordinate the assessment and analysis of field environmental samples with the HEEC and/or Division of Radiation Protection (DRP) as appropriate.
- Note:** The DRP defines 1mrem/hr on contact with an environmental sample "Hot" or "High Risk". Hot samples should be identified to the Mobile Laboratory upon receipt.

ENVIRONMENTAL FIELD COORDINATOR CHECKLIST

Responsibility/Activity

✓

a) Sample delivery by the teams

- 1) Contact the DRP's Mobile Lab Coordinator and inform him/her of the estimated time of arrival (ETA) for CP&L's Environmental Monitoring Teams.
- 2) Request the location of the DRP's Mobile Lab and relay this to the CP&L Environmental Monitoring Teams.
- 3) Ensure the samples delivered to the Mobile Lab are labeled correctly.
- 4) Direct CP&L's Environmental Monitoring Teams back into the field or to a designated area for decontamination and debrief.

b) Sample delivery by a courier

- 1) Contact the DRP's Mobile Laboratory Coordinator and agree upon a low dose/contamination area location for sample exchange.
- 2) Provide this location to CP&L's Environmental Monitoring Teams and ensure they monitor the area upon arrival.
- 3) Ensure the samples delivered to the courier are labeled correctly.
- 4) Direct CP&L's Environmental Monitoring Teams back into the field or to a designated area for decontamination and debrief.

c) Sample delivery to the HEEC

Note: Environmental samples ≥ 1 mrem/hr will not be delivered to the Harris E&E Center for analysis.

- 1) Contact the HEEC Lab and inform them of the ETA of CP&L's Environmental Monitoring Teams.
- 2) Ensure the samples are labeled correctly.
- 3) Dispatch an HP Technician to the HEEC Lab to assist in the setup and handling of the radioactive samples.
- 4) Direct CP&L's Environmental Monitoring Teams back into the field or to a designated area for decontamination and debrief.

ENVIRONMENTAL FIELD COORDINATOR CHECKLIST

Responsibility/Activity

✓

- d) Request lab results from the DRP's Mobile Lab and/or the HEEC.
 - e) Provide the results of field team surveys and samples to the DPTL.
 - f) Evaluate sample results with EPA PAGs.
 - g) Notify the DPTL of any emergency planning Subzones exceeding EPA PAGs as indicated by environmental measurement.
7. Request any materials or supplies not available on site from the ALM or Admin Team.
8. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

ENVIRONMENTAL FIELD COORDINATOR

LOG

EOF	DATE:	PAGE OF
TIME	COMMENTS	

Upon relief, or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

ENVIRONMENTAL TEAM MEMBER CHECKLIST

Position Function: Conduct of offsite plume tracking, monitoring and sampling activities.

Responsibility/Activity

✓

- 1. Assume the position of Environmental Team Member.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Assemble, obtain equipment, perform checks, obtain a briefing and proceed to the designated monitoring location.

- 2. Monitor radiation exposure levels and obtain guidance for entry into areas which exceed pre-established levels.
- 3. Obtain air samples and sample measure activity.
- 4. Measure and record ambient radiation levels.
- 5. Distribute emergency environmental TLDs.
- 6. Collect, label and transport environmental samples.
- 7. Advise, instruct and issue KI to field team members as directed.
- 8. Return to the staging area and perform inventories.
- 9. Termination of the emergency
 - a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

EOF HP TECHNICIAN CHECKLIST

Position Function: Perform radiological control activities for the EOF.

Responsibility/Activity

✓

1. Assume the position of EOF HP Technician.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Notify the DPTL of arrival.
- e) Perform a formal relief when permanently relieving another EOF HP Technician.
- f) Inform DPTL when temporarily leaving the EOF.
2. Ensure EOF personnel have signed out dosimetry from the Emergency Personnel Dosimetry Cabinet.
3. Response check survey instruments.
4. Confirm proper EOF ventilation system line-up, per Part 2, Sheet 4 of this Attachment.
5. Activate the EOF ventilation system if directed, per Part 3, Sheet 4 of this Attachment.
6. Monitor the EOF ventilation system's radiation monitor approximately every hour during a known release per Sheet 5 of this Attachment.
7. Shut down the EOF ventilation, if directed, per Part 4 Sheet 4 of this Attachment.
8. Activate a frisker at the security station entrance to the EOF.
- a) Post signs at the EOF entrance requiring personnel to frisk and the instructions for performing the frisk.
- b) Inform the security guard that frisking is required and request that they notify the DPTL if the frisker alarms.
9. Perform EOF habitability surveys.
- a) Perform EOF air samples when directed.
- b) Report the results of EOF habitability surveys to the DPTL.

EOF HP TECHNICIAN CHECKLIST

Responsibility/Activity



10. Facility Deactivation.



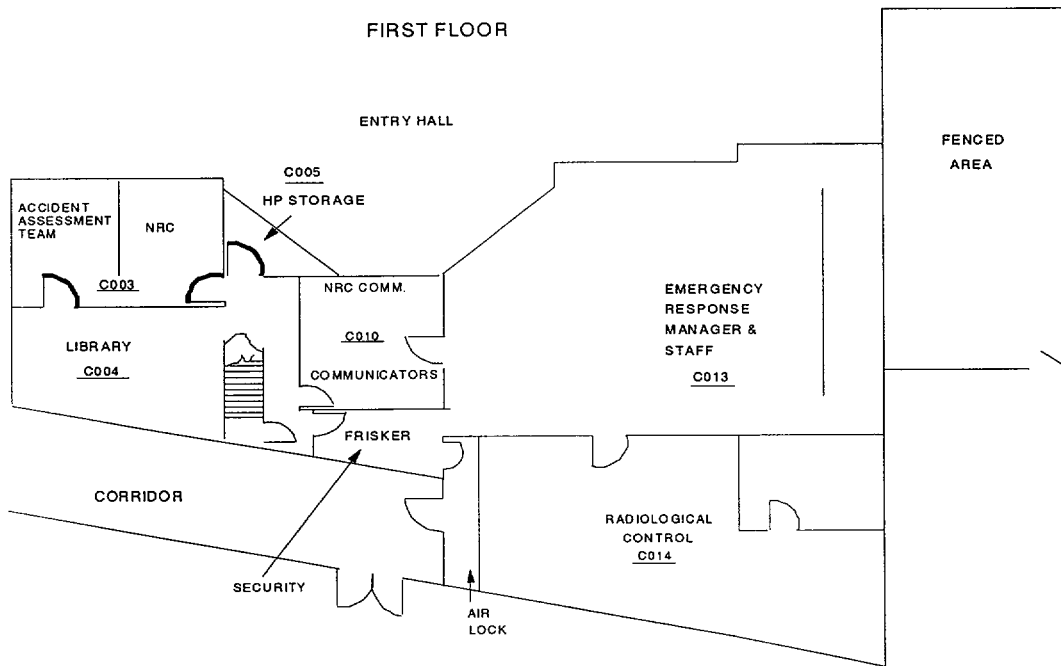
- a) Return all radiological equipment and supplies to the appropriate storage locations and perform inventories.
- b) Return the EOF ventilation system to the normal mode.
- c) Collect dosimetry, record SRPD readings and forward TLDs to dosimetry for processing.
- d) Complete all records and surveys and provide them to the DPTL.

11. Termination of the emergency

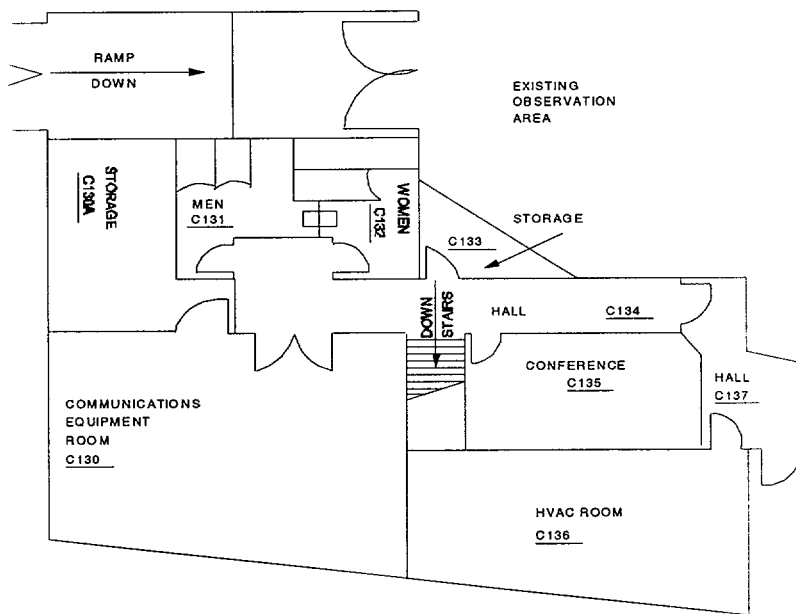


- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

EOF FLOOR PLAN



SECOND FLOOR



EOF VENTILATION SYSTEM STATUS CHECKLIST

PART 1: Check system operation (NORMAL MODE) on the EOF Ventilation System Rad Monitor in the Radiological Control Room (C014) as follows:

1. Check that the large green OPERATE light ⁽¹⁵⁾ is ON.
2. Check that the small green LED OPERATE lights ⁽¹⁴⁾ are on for channels 1 and 2.
3. Perform a source test. (Key for source test is located in the EOF Library key box)
 - a) Select channel 1 ⁽¹⁶⁾
 - b) Press the C/S BUTTON ⁽¹⁷⁾ then RELEASE.
 - 1) After a few seconds delay, the button will light.
 - 2) When the C/S BUTTON light goes out, the LED OPERATE light should continue to burn.
 - 3) If not, the channel has failed the source check.
 - c) Select channel 2 ⁽¹³⁾ and repeat the process (step 3.b.)
 - d) Report system Operational or Non-Operational to the Dose Projection Team Leader.

PART 2: Check system pre-operational lineup in the Equipment Room (C136) as follows:

1. Check the Ventilation Control Panel ⁽¹⁾.
 - a) Check that the MAINT. SWITCH is in NORMAL ⁽⁹⁾.
 - b) Check that the Green NORMAL MODE light is ON ⁽²⁾.
2. Check that the Charcoal Test Canisters ⁽³⁾ are valved out.
3. Set EMERGENCY FAN breaker box ⁽⁴⁾ to ON (located on wall behind emergency fan).
4. Set EMERGENCY FAN CONTROL BOX ⁽⁵⁾ to AUTO (located below the emergency fan breaker box).
5. Set CIRCUIT BREAKER No. 26 ⁽⁶⁾ to ON (located in electrical panel 'P' on the wall beside equipment room entrance).
6. Report system Operational or Non-Operational to the Dose Projection Team Leader.

PART 3: Startup of System in the Equipment Room (C136) as follows:

1. Turn the SYSTEM MODE SWITCH (7) to MANUAL (located on the ventilation system control panel).
2. Confirm that the large red light (12) on the EOF Ventilation System Rad Monitor ⁽¹⁰⁾ indicates HEPA FILTER MODE (located in the dose projection room).
3. Report system Operational or Non-Operational to the Dose Projection Team Leader.

PART 4: Shutdown the emergency ventilation in the Equipment Room (C136) as follows:

1. Press the SYS RESET button ⁽⁸⁾. The dampers should shift to the NORMAL position and the emergency fan motor should stop.

EOF VENTILATION SYSTEM LOG

Page _____ of _____

Date/Time	Reading $\mu\text{Ci/cc}$		Status Lights (G, Y, R)	
	No. 1	No. 2	No. 1	No. 2

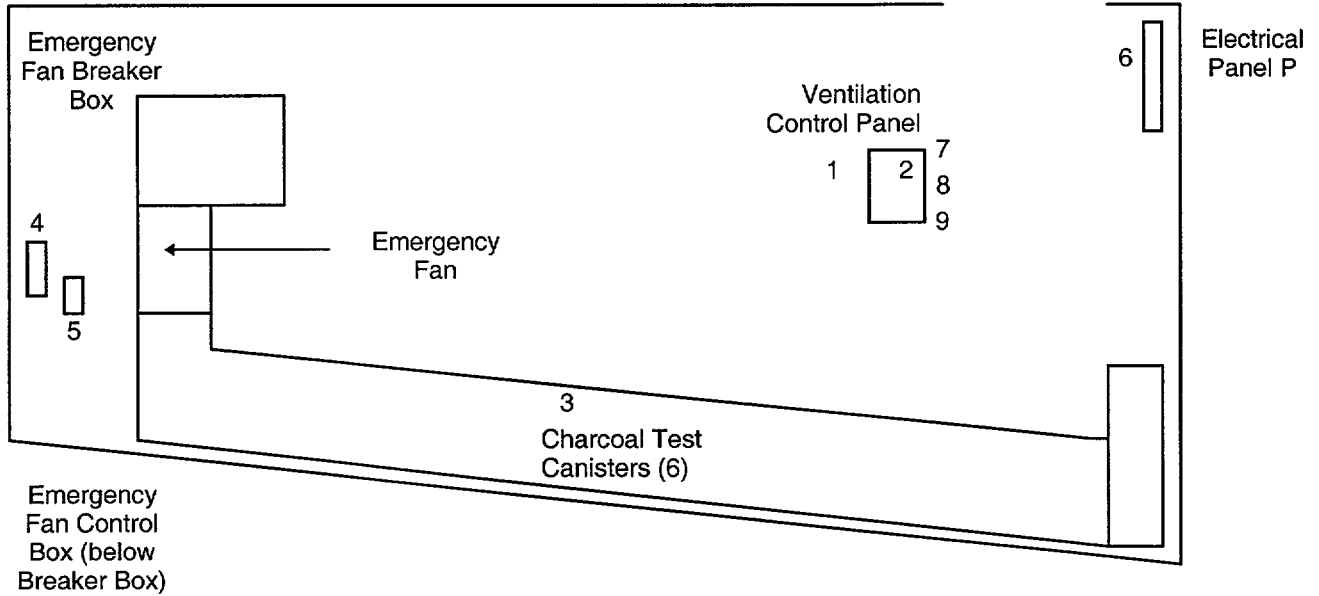
Channel Status Lights:

1. Green (G) Normal operation
2. Yellow (Y) Alert alarm (horn will sound)
 - a) Acknowledge the alarm.
 - b) Inform the Dose Projection Team Leader.
3. Red (R) High alarm (horn will sound)
 - a) Acknowledge the alarm.
 - b) Inform the Dose Projection Team Leader.
 - c) Verify that the ventilation dampers in room C136 have shifted to the emergency position.

Remarks: _____

Heating and Ventilation Room (C-136)

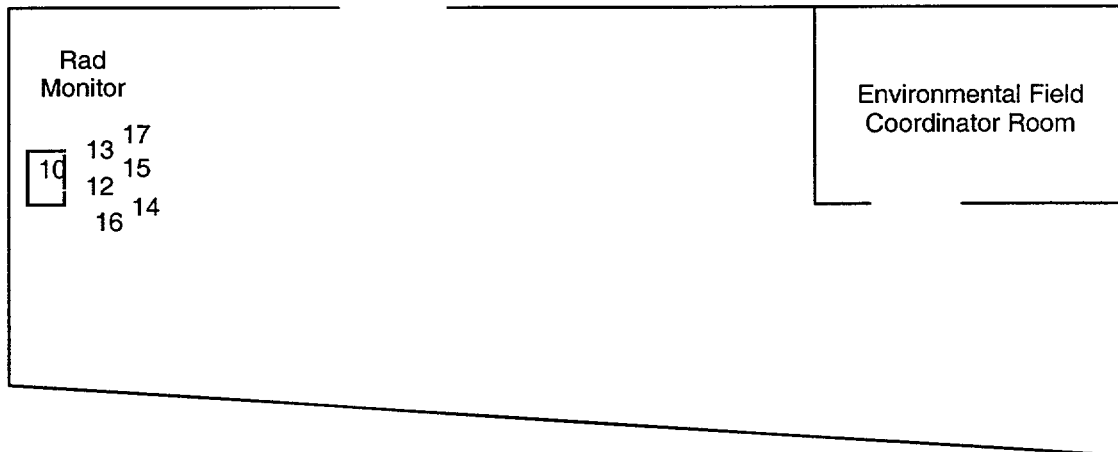
Part 1 of EOF Ventilation System Status Checklist



NOTE: Drawing is not to scale

Radiological Control Room (C-014)

Part 2 of EOF Ventilation System Status Checklist



COMMUNICATIONS MANAGER CHECKLIST

Position Function: Direct and supervise the offsite notification and communication emergency response activities.

Responsibility/Activity

✓

- 1. Assume the position of Communications Manager.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another Communications Manager.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

- 2. Notify the State and County EOCs and Corporate Communications (or the JIC if activated) when the EOF becomes activated.
- 3. Ensure that communications equipment is in place and functioning properly.

NOTE: Do not create a new notification form in RTIN until responsibility for notifications is assumed by the ERM.

- a) Verify the CM, EC-State/County (Selective Signaling System), EC-Corp Comm/JIC, and the State/County Decision Line telephones are operational.
- b) Verify the automatic ring-down telephones (EC to TSC and EC to JIC) are operational.

COMMUNICATIONS MANAGER CHECKLIST

Responsibility/Activity



- c) Verify the News Coordinator, dose projection, CM (ERFIS/RTIN), and EOF AAT computers are operational.
- d) Verify that the back up telephone system is functioning for each position when loss of the HEEC Telephone System occurs. See the Emergency Phone List EPL-001 Section 2.6
- 4. Supervise the activities of the Emergency Communicators and the HNP EOC Representatives.

 - a) Ensure the EC-State/County has verification codes.
 - b) Ensure that questions received by the ECs are recorded and delivered to the appropriate person for response.
 - c) Ensure that responses to inquires are provided to the ECs for transmittal.

- 5. Ensure the timely notification and transfer of emergency information to the State and County agencies is performed.

 - a) Ensure that an Emergency Notification Form is completed.
 - b) Ensure the Emergency Notification Forms are approved by the ERM and transmitted per PEP-310 within 15 minutes of:
 - 1) The declaration of an emergency.
 - 2) A change in emergency classification level.
 - 3) A change in offsite Protective Action Recommendations.
 - c) Ensure the follow-up Emergency Notification Forms are approved by the ERM and transmitted per PEP-310 as follows:
 - 1) Within 60 minutes of the last notification.
 - 2) Whenever a new EAL is exceeded regardless of whether or not it results in a change in the classification level.
 - 3) As soon as significant changes in dose projection and/or field monitoring data is available.
 - d) Ensure State and County officials are informed of any on site events requiring assistance from offsite support organizations.

COMMUNICATIONS MANAGER CHECKLIST

Responsibility/Activity

- ✓
6. Ensure the timely transfer of emergency information to Corporate Communications or the JIC is performed.
- a) Ensure that copies of notifications provided to the State and County are transmitted to the JIC and the TSC.
 - b) Coordinate with the News Coordinator to ensure that draft news releases are issued no later than 45 minutes after an emergency classification change, radiological release, or other significant event which is provided via the Emergency Notification Form.
7. Ensure the notifications and requests for assistance to external support services and organizations is performed.
- a) Notify ANI and INPO within 4 hours of the declaration of an Alert or higher classification level.
 - b) Ensure that Nuclear Mutual Limited is notified of any fire damage to HNP equipment.
 - c) Ensure TSC Directors are kept informed of HNP requests for offsite assistance.
8. Request any materials or supplies not available on site from the ALM or Admin Team.
- a) Coordinate with the ALM to establish Status Board Plotters to post current plant status and offsite information upon sustained loss of EOF electronic display capabilities using the PPIF forms in PEP-310 Att. 14.
9. Termination of the emergency
- a) Ensure that a termination message is written, approved, and transmitted to the State and counties.
 - b) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - c) Replenish content of your position book.
 - d) Restore the facility to stand-by readiness.
 - e) Inventory facility equipment if applicable.

EMERGENCY COMMUNICATOR - STATE/COUNTY CHECKLIST

Position Function: Conduct timely notification and transfer of emergency information to the State and Counties.

Responsibility/Activity



1. Assume the position of Emergency Communicator-State/County.
 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another Emergency Communicator-State/County.
 - 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform the CM when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Communicate the Emergency Notification Forms to the State and counties.
 - a) Ensure the Emergency Notification Forms have been approved by the ERM.
 - b) Obtain verification code words.
 - c) Transmit the notification.
 - 1) Ensure the initial Emergency Notification Forms are transmitted within 15 minutes of any change in classification or PAR.
 - 2) Ensure the follow-up Emergency Notification Forms are transmitted no greater than 60 minutes from the last notification.
3. Prepare Event Notification Checklists as per PEP-310 Att 2-5.
4. Request any materials or supplies not available on site from the ALM or Admin Team.

EMERGENCY COMMUNICATOR - STATE/COUNTY CHECKLIST

Responsibility/Activity



5. Termination of the emergency



- a) Ensure that a termination message is transmitted and communicated to the State and counties.
- b) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- c) Replenish content of your position book.
- d) Restore the facility to stand-by readiness.
- e) Inventory facility equipment if applicable.

EMERGENCY COMMUNICATOR - CORP COMM/JIC CHECKLIST

Position Function: Provide information to support public information emergency response activities.

Responsibility/Activity

- | | |
|--|--------------------------|
| | ✓ |
| 1. Assume the position of Emergency Communicator-Corporate Communications/JIC. | <input type="checkbox"/> |
| a) Sign in on the facility organization chart. | |
| b) Obtain the positional notebook/binder from the storage area. | |
| c) Obtain dosimetry. | |
| d) Perform a formal relief when permanently relieving another Emergency Communicator-Corporate Communications/JIC. | |
| 1) Review the activity log. | |
| 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress. | |
| e) Inform a staff member when temporarily leaving the work area (such as to the restroom). | |
| 1) Designate an individual to answer the phones while away. | |
| 2) Upon return, obtain a briefing on any events which have occurred while away. | |
| 2. Maintain a log by providing input to the Communications Director. | <input type="checkbox"/> |
| 3. Provide information to the News Coordinator to support the preparation of news releases. | <input type="checkbox"/> |
| 4. Provide technical clarification for the Site Communications Manager to support preparation activities for news media briefings prior to JIC activation. | <input type="checkbox"/> |
| 5. Following JIC activation: | <input type="checkbox"/> |
| 1) Inform Site Communications Manager of time of activation. | |
| 2) Provide information to support preparations for news media briefings. | |
| 6. Request any materials or supplies not available on site from the ALM or Admin Team. | <input type="checkbox"/> |

EMERGENCY COMMUNICATOR - CORP COMM/JIC CHECKLIST

Responsibility/Activity



7. Termination of the emergency



- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

NEWS COORDINATOR CHECKLIST

Position Function: Prepare and coordinate the approval of news releases.

Responsibility/Activity



- 1. Assume the position of News Coordinator.
 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another News Coordinator.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
- 2. Maintain a log by providing input to the CM.
- 3. Verify the operability of the computer and printer (report any problems to the ALM).
- 4. Contact Corporate Communications:
 - a) Establish contacts and mechanisms for distributing news releases on the CP&L Internet, prior to JIC activation.
- 5. Contact Site Communications:
 - a) Establish contacts for the distribution of press releases prior to JIC activation.
- 6. Inform Site Communications Manager or Corporate Communications if contacted by the Control Room for events involving a fire or transportation of a contaminated, injured person.

NEWS COORDINATOR CHECKLIST

Responsibility/Activity

✓
□

7. Prepare news releases.

- a) Obtain emergency information from the EOF for use in news releases and media briefings.

NOTE: The EC-Corporate Communications/JIC is the primary source of information for the preparation of news releases.

- b) Use the EAL Reference Manual as a non-technical source of information for emergency descriptions.

8. Ensure news releases are issued no later than 45 minutes after an event classification change, radiological release, or other significant event that has been provided to the State and Counties via the Emergency Notification Form. □

- a) Coordinate with Corporate Communications or the JIC Director (when the JIC is activated) to ensure the correct issue times and chronological numbers are recorded on the news release (the JIC Director will record the time prior to issue).
- b) Place 'DRAFT' in the block for issue time for the news release.
- c) Ensure Corporate Communications receives final, approved news releases.
- d) Ensure the Emergency Response Manager has approved all news releases prior to distribution.
- e) Ensure news releases issued with information that needs to be corrected are corrected and reissued with corrections noted.

NOTE:

- News releases do not have to be approved by the ERM if they contain only the JIC activation time, media/public inquiry telephone numbers, or media briefing times.
- These non-technical news releases are prepared by the JIC Director once the JIC is activated.

NEWS COORDINATOR CHECKLIST

Responsibility/Activity

- | | |
|---|--------|
| | ✓
□ |
| 9. Coordinate the release of news information. | □ |
| a) Coordinate release through the JIC Director (or through Corporate Communications if the JIC is not yet activated). | |
| b) Coordinate distribution to EOF, TSC, and NRC Site Team personnel through the Administrative Team Leader. | |
| 10. Direct media response activities. | □ |
| a) Gather, assess and ensure distribution of emergency information. | |
| 1) Ensure proper approval and issuance of the news releases. | |
| 2) Obtain technical assistance to assess plant data as necessary. | |
| 3) Coordinate with offsite agency public affairs personnel to ensure State and County agencies are aware of emergency information issued by CP&L. | |
| b) Ensure a smooth transition of media response activities from the EOF to the JIC when JIC activation occurs. | |
| 11. Inform JIC Director of Corporate Communications and Site Communications contacts. | □ |
| 12. Request any materials or supplies not available on site from the ALM or Admin Team. | □ |
| 13. Termination of the emergency | □ |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

REP - STATE/COUNTY EOC CHECKLIST

Position Function: Act as technical liaison to provide classification and protective action information to Emergency Management authorities.

Responsibility/Activity

✓

1. Assume the position of Rep - State/County EOC at the appropriate EOC.

a) Notify Emergency Management Authorities of your presence in the EOC.

1) Determine their level of awareness of the event.

NOTE: Do not speculate on plant conditions or actions. Contact the EOF to obtain information prior to answering any questions.

2) Determine if there are any outstanding questions that could be answered by the plant ERO staff.

b) Contact the EOF to indicate arrival at the EOC.

1) Provide the EOF with a contact phone number at the EOC.

2) Attempt to gain answers through the EOF for any initial questions from the EOC staff.

c) Locate the stored plant visual aids package and be prepared to provide information about the plant as necessary.

d) When relieving another individual, review the activity log, obtain a briefing on the emergency and any actions that have been completed or are in progress, and inform those present of the position being filled.

2. Maintain a log of activities using your checklist log.

3. Monitor the progress of the emergency from the EOC.

a) Remain available to the EOC staff to answer questions about plant design, layout, normal operations, etc.

b) Act as a liaison between the EOC and EOF to resolve questions and confusion on the part of the EOC staff.

4. Review incoming notification forms to ensure the EOC staff understands plant conditions and is receiving accurate and timely information.

REP - STATE/COUNTY EOC CHECKLIST

Responsibility/Activity

✓

5. Termination of the emergency

- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

TECHNICAL ANALYSIS MANAGER CHECKLIST

Position Function: Direct and supervise the long term (> 12 hours) accident assessment and technical support emergency response actions.

Responsibility/Activity



1. Assume the position of Technical Analysis Manager.
 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another Technical Analysis Manager.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Maintain a log of activities using your checklist log.
3. Supervise the activities of the EOF Accident Assessment Team.
 - a) Ensure the EOF AAT is adequately staffed.
 - b) Determine the need for additional company or outside personnel to provide technical support.
 - c) Ensure EOF-AAT efforts are focused on long term support activities.
4. Monitor and assess vital plant parameters and conditions.
 - a) Coordinate the receipt and assessment of technical information from on site and off site sources related to plant systems and operations.
 - b) Ensure the ERM is informed of the status of short and long term repair activities.

TECHNICAL ANALYSIS MANAGER CHECKLIST

Responsibility/Activity

- 5. Provide a technical interface with external support and regulatory agencies.
- 6. Ensure adequate personnel and material resources are available to support the long term (>12 hours) technical response.
- 7. Coordinate technical support and engineering efforts with the TAD.
 - a) Contact the TAD to discuss on site activities and to determine if assistance is needed.
 - b) Provide engineering support to the TAD and TSC-AAT on short term repair activities as needed.
- 8. Request any materials or supplies not available on site from the ALM or Admin Team.
 - a) Coordinate with the ALM to obtain assistance from the Nuclear Steam Supply System vendor, architect/engineer, or other contractors not currently on your staff, if assistance is needed.
 - b) Ensure the ALM has arranged for relief staffing for the EOF-AAT.
- 9. Termination of the emergency
 - a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

EOF SENIOR REACTOR OPERATOR CHECKLIST

Position Function: Provide analysis and advice regarding the impact of plant conditions on emergency classifications, Protective Action Recommendations, and accident mitigation.

Responsibility/Activity

✓

- 1. Assume the position of EOF Senior Reactor Operator.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another EOF Senior Reactor Operator.
 - 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

- 2. Maintain a log of activities by providing input to the EOF log keeper.
- 3. Monitor fission product barrier and plant status on ERFIS.
 - a) Provide recommendations for EAL changes.
 - b) Provide recommendations for PAR changes.
 - b) Update the fission product barrier status board.
- 4. Assist in clarifying ERFIS or Plant Parameter Information Forms data.
 - a) Coordinate with the EOF ERFIS operator to display vital plant information pertinent to the event.

EOF SENIOR REACTOR OPERATOR CHECKLIST

Responsibility/Activity

- | | |
|--|--------|
| | ✓
□ |
| 5. Request any materials or supplies not available on site from the ALM or Admin Team. | □ |
| 6. Termination of the emergency | □ |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

EOF SENIOR REACTOR OPERATOR CHECKLIST

Directions for Use of the Operations Mitigation Line

Establish a Conference Call

- Place receiver and wireless headset on self
- Push green toggle switch to 'ON'
- Remove handset from cradle
- Hit 'FLASH' button
- Dial Plant Operations Director phone number
- Hit 'FLASH' button
- Dial TSC Senior Reactor Operator's phone number
- Hit 'FLASH' button
- Verify conference call has been established

Disconnect a Conference Call

- Push green toggle switch to 'OFF' position
- Hang up receiver unit on cradle
- Hang up handset on cradle

EOF ACCIDENT ASSESSMENT TEAM CHECKLIST

Position Function: Provide engineering analysis and trouble shooting, as directed, to assist in accident mitigation.

Responsibility/Activity

✓

1. Assume the position of EOF Accident Assessment Team Engineer.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Perform a formal relief when permanently relieving another EOF AAT Member.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Maintain an accident assessment log by providing input to the TAM.
3. Obtain necessary drawings.
4. Resolve long term engineering problems.
5. Assist as requested in the resolution of short term engineering problems in support of onsite repair efforts.
6. Maintain a listing of out-of service equipment.
7. Request any materials or supplies not available on site from the ALM or Admin Team.

EOF ACCIDENT ASSESSMENT TEAM CHECKLIST

Responsibility/Activity



- 8. Termination of the emergency
 - a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

EOF ERFIS OPERATOR CHECKLIST

Position Function: Operate ERFIS to obtain and display plant information.

Responsibility/Activity

- | | |
|--|--------------------------|
| | ✓ |
| 1. Assume the position of EOF ERFIS Operator. | <input type="checkbox"/> |
| a) Sign in on the facility organization chart. | |
| b) Obtain the positional notebook/binder from the storage area. | |
| c) Obtain dosimetry. | |
| d) Perform a formal relief when permanently relieving another EOF ERFIS Operator. | |
| 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress. | |
| e) Inform the EOF SRO when temporarily leaving the work area (such as to the restroom). | |
| 2. Log on to the ERFIS terminal. | <input type="checkbox"/> |
| 3. Coordinate with the EOF SRO to operate the facility display system. | <input type="checkbox"/> |
| 4. Print ERFIS reports as needed. | <input type="checkbox"/> |
| 5. Termination of the emergency | <input type="checkbox"/> |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

ADMINISTRATIVE AND LOGISTICS MANAGER CHECKLIST

Position Function: Direct and supervise the administrative and logistic support emergency response actions.

Responsibility/Activity

✓

1. Assume the position of Administrative and Logistics Manager.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Obtain dosimetry.
- d) Perform a formal relief when permanently relieving another Administrative and Logistics Manager.
 - 1) Review the activity log.
 - 2) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Maintain a log of activities using your checklist log..
3. Synchronize EOF clocks with the MCR using ERFIS time.
4. Supervise the activities for access authorization into the EOF.
 - a) Inform the EOF security guard of EOF activation when announced by the ERM.
 - b) Notify the EOF security guard that the ALM or ERM will be the point of contact at the EOF if verification of personnel is needed to allow access.
5. Supervise the activities of the Administrative Team and Assembly Area Leader.
 - a) Coordinate necessary relief and stand-by personnel for the Assembly Area.

ADMINISTRATIVE AND LOGISTICS MANAGER CHECKLIST

Responsibility/Activity



- b) Direct the Assembly Area Leader to return assembled personnel to work following instructions from the SEC-TSC or a PA announcement.

NOTE: Permission is required from the SEC-TSC or ERM prior to staffing ERO positions with non-ERO personnel.

NOTE: The Security Director will identify and contact security force personnel. Schedules and logistics for these personnel should be coordinated with the Security Director.

- 6. Direct the development of relief schedules for all HNP emergency response facilities to provide 24 hour coverage.

- a) Contact the SEC-TSC to coordinate relief times for the on site ERO staff.
- b) Coordinate movement of relief personnel with State officials if offsite protective actions are underway.
- c) Contact the relief personnel to inform them of shift schedules.
- d) Obtain direction and approval by the ERM or SEC-TSC when qualified alternates can not be contacted to fill an ERO position.

- 7. Make arrangements for personnel, equipment, supplies and other resources in support of the emergency.

- a) Coordinate the acquisition of offsite resources with emergency facility managers.
- b) Coordinate the purchasing efforts to locate, order, and receive resources used in support of the response activities.
- c) Coordinate the processing of offsite support personnel called in to provide assistance with Security.
- d) Determine the need and make arrangements for additional contracts, services and facilities necessary to support the emergency organization.
 - 1) Support the TAM in acquiring assistance from offsite Agreement Organizations as needed.
- e) Provide logistical arrangements for support and Federal response personnel brought in to assist with the event.

ADMINISTRATIVE AND LOGISTICS MANAGER CHECKLIST

Responsibility/Activity

✓

- f) Provide and coordinate any additional facilities and equipment support for the emergency response facilities.
 - 1) Direct requests for installation, maintenance and operation of communication or computer equipment in the EOF or JIC to the Telecommunications Technical Assistance Center.
- g) Provide and coordinate any additional administrative and clerical support for the emergency response facilities.
- 8. Maintain accountability for EOF personnel.
- a) Ensure EOF managers are accounting for their personnel while a release is in progress.
- 9. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

AGREEMENT ORGANIZATION ASSISTANCE REQUEST FORM

- | | |
|---|--|
| <input type="checkbox"/> INPO | <input type="checkbox"/> American Nuclear Insurers |
| <input type="checkbox"/> Westinghouse | <input type="checkbox"/> Nuclear Mutual Limited |
| <input type="checkbox"/> Washington Group | <input type="checkbox"/> Department of Energy |
| <input type="checkbox"/> Framatone | |
| <input type="checkbox"/> Other: _____ | |

Assistance Requested: _____

Authorization: _____ Date: _____ Time: _____
(Emergency Response Manager)

Individuals Contacted: _____ Date: _____ Time: _____

Assistance They Have Agreed to Provide: _____

Individuals Who Will Be Reporting To The Site:

<u>Name</u>	<u>Location Reporting To</u>	<u>Expected Arrival</u>	
		<u>Date</u>	<u>Time</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Notification Completed: _____
(Administrative and Logistics Manager)

ADMINISTRATIVE TEAM LEADER CHECKLIST

Position Function: Perform administrative activities in the EOF.

Responsibility/Activity



- 1. Assume the position of Administrative Team Leader.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another Administrative Team Leader.
 - 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

- 2. Ensure sufficient clerical support exists in the EOF to adequately support EOF personnel.
- 3. Direct Administrative Team members to perform administrative support functions as necessary.

 - a) Update facility controlled documents as appropriate.
 - b) Copy ERFIS data and distribute to appropriate personnel within the facility, including the NRC, if needed.
 - c) Copy Plant Parameter Information Forms and distribute to appropriate personnel within the facility, including the NRC, if ERFIS is not available.
 - d) Distribute news releases to EOF, TSC and NRC personnel within the EOF.
 - e) Post current plant and offsite information upon a sustained loss of EOF electronic display capability.

ADMINISTRATIVE TEAM LEADER CHECKLIST

Responsibility/Activity

- | | |
|--|--------------------------|
| | ✓ |
| 4. Copy and transmit information to other locations as directed. | <input type="checkbox"/> |
| 5. Obtain procedures and reference materials as requested. | <input type="checkbox"/> |
| 6. Termination of the emergency | <input type="checkbox"/> |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

EOF LOGKEEPER CHECKLIST

Position Function: Maintain a chronological log of all major EOF activities and decisions throughout the emergency.

Responsibility/Activity

✓

- 1. Assume the position of EOF Logkeeper.

 - a) Sign in on the facility organization chart.
 - b) Obtain the positional notebook/binder from the storage area.
 - c) Obtain dosimetry.
 - d) Perform a formal relief when permanently relieving another EOF Logkeeper.
 - 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
 - e) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.

- 2. Maintain the EOF log by recording EOF activities.
- 3. Remind the ERM of predesignated briefing times.
- 4. Ensure the JIC is united with the EOF via speakerphone during regularly scheduled EOF briefings.
 - a) Advise the JIC in advance of upcoming EOF briefings.
 - b) Just prior to commencement of EOF briefings contact the JIC and place the JIC on the speakerphone to monitor EOF briefing reports.
- 5. Termination of the emergency
 - a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
 - b) Replenish content of your position book.
 - c) Restore the facility to stand-by readiness.
 - d) Inventory facility equipment if applicable.

ASSEMBLY AREA LEADER CHECKLIST

Position Function: Coordinate and supervise the activities in the Assembly Area.

Responsibility/Activity



1. Activation of the facility.
 - a) Upon declaration of an emergency with instructions to assemble (usually an Alert of higher), report to the Admin Building CR#228 and coordinate assembly and accountability.
 - b) Obtain the positional notebook/binder from CR#228.
 - c) Determine if restrictions on eating and drinking are in effect and ensure personnel are aware of the restrictions.
 - d) Advise the ALM that the Assembly Area is ready to activate.
 - e) Announce to present personnel that you are the Assembly Area Leader.
2. Instruct arriving personnel to sign in and await instructions.
 - a) Perform accountability for personnel reporting to the assembly area.
 - b) Identify personnel who are qualified to fill an ERO position.
 - c) Direct assembled personnel to return to work following instructions from the SEC-TSC or a PA announcement once verified by the ALM.
3. Coordinate the relocation of assembled personnel in the event of a Exclusion Area evacuation.
 - a) If a Site Evacuation has been announced, direct ERO personnel to proceed to the HEEC Auditorium "A".
 - b) Report when all personnel have left the Admin Building to the ALM and proceed to the HEEC.
 - c) Reestablish a muster sheet of personnel assembled in the auditorium.

ASSEMBLY AREA LEADER CHECKLIST

Responsibility/Activity

- | | |
|--|--------------------------|
| | ✓ |
| 4. Coordinate logistics to provide augmentation personnel when requested. | <input type="checkbox"/> |
| a) Coordinate additional personnel resources with the ALM to augment the ERO as necessary. | |
| 5. Request any materials or supplies not available on site from the ALM or Admin Team. | <input type="checkbox"/> |
| 6. Termination of the emergency | <input type="checkbox"/> |
| a) Provide all logs and records to Emergency Preparedness upon termination of the emergency. | |
| b) Replenish content of your position book. | |
| c) Restore the facility to stand-by readiness. | |
| d) Inventory facility equipment if applicable. | |

EOF TELECOM/COMPUTER SUPPORT CHECKLIST

Position Function: Provide telecom/computer support to EOF Staff

Responsibility/Activity

✓

1. Assume the Position of EOF Telecom/Computer Support.
- a) Sign in on the facility organization chart.
- b) Obtain the positional notebook/binder from the storage area.
- c) Perform a formal relief when permanently relieving another EOF Telecom/Computer Support.
 - 1) Obtain a briefing on the emergency and any actions that have been completed or are in progress.
- d) Inform a staff member when temporarily leaving the work area (such as to the restroom).
 - 1) Designate an individual to answer the phones while away.
 - 2) Upon return, obtain a briefing on any events which have occurred while away.
2. Provide computer support as required to assist EOF Staff
3. Termination of the emergency
- a) Provide all logs and records to Emergency Preparedness upon termination of the emergency.
- b) Replenish content of your position book.
- c) Restore the facility to stand-by readiness.
- d) Inventory facility equipment if applicable.

EOF Logkeeper Instructions

1. ERFIS Logon Instructions

- a) Press F3 or type turn-on-code (TOC) **MENU**
- b) Select *Emergency Preparedness Functions Menu* or type TOC **EP**
- c) Select *Log into Network Database* or type TOC **LOGIN**
- d) Select EOF log keeper from the position menu
- e) Type your name and press login
- f) Select *Declare Event* or type TOC **EVENT** and press **OK**
- g) Select *Access EP Logs* or type TOC **POSLOG**
- h) Select **ADD** to began typing in the subject area
- i) Select **SAVE** after each entry is completed.

2. ERFIS Relief Instructions

- a) Select **SAVE** for the last entry and press EXIT
- b) Select *Log Out Of Network Data Base* or type TOC **LOGOUT**. This will allow the log to be continued by the relief person.
- c) Select *Log into Network Database* or type TOC **LOGIN**
- d) Select EOF log keeper from the position menu
- e) Type your name and press login
- f) Select *Access EP Logs* or type TOC **POSLOG**
- g) Select **ADD** to began typing in the subject area

3. ERFIS Logoff Instructions

- a) Select **SAVE** for the last entry and press **EXIT**

NOTE: ERFIS Log printing must be performed by EOF Telecom/Computer Support prior to logging off the system.

- b) Select *Terminate Event* or type TOC **NOEVENT**
- c) Select *Log Out Of Network Data Base* or type TOC **LOGOUT**
- d) Select YES

EOF ERFIS Operator Instructions

1. ACTIVATION OF THE LARGE SCREEN DISPLAYS:	
a) Activate the 3 large screen projectors from the black AMX touch screen controller by selecting screen display TSC1, TSC2, and TSC3.	
b) Select one of the three computers that provide the display by	
c) pressing the "Ctrl" key,	
d) releasing the "Ctrl" key and then	
e) selecting 1, 2, or 3 (Computer 1, 2, or 3)	
2. GENERAL INSTRUCTIONS FOR ERFIS USE:	
a) ERFIS defaults to the "MASTER MENU" screen. Press F3 or type "MENU" to return to the "MASTER MENU" from any screen	
b) Menu items may be selected by typing the TURN-ON-CODE (TOC) at the top of the screen or by selecting the menu item with the mouse and clicking	
c) Menu items that are useful for emergency preparedness are:	
<u>ROUTINE EP DATA GROUPS:</u>	
3TSCDAT1	DATA GR 1 FOR EMERGENCY USE IN TSC
3TSCDAT2	DATA GR 2 FOR EMERGENCY USE IN TSC
3TSCDAT3	DATA GR 3 FOR EMERGENCY USE IN TSC
3EALS	DATA FOR ACCIDENT ASSESSMENT TEAM
3DOSE	DOSE PROJECTION INFORMATION
<u>OTHER AVAILABLE EP DATA GROUPS:</u>	
3TSCRMS1	RAB RADIATION MONITORS
3TSCRMS2	WPB/TSC RADIATION MONITORS
3TSCRMS3	FHB RADIATION MONITORS
3TSCRMS4	CNMT, EFFLUENT, AND MISC RAD MON

EOF ERFIS Operator Instructions

<u>OTHER AVAILABLE EP DATA GROUPS:</u>	
REAL	Realtime Data Menu
GL	Group Libraries
PL	Plot Library
EP	Emergency Preparedness Function Menu
Status	Emergency Preparedness Display Menu
3. INSTRUCTIONS FOR PRINTING THE EP DATA GROUPS EVERY 15 MINUTES	
a) From the Master Menu select "Periodic Logs Menu"	
b) Select "Start Periodic Facility Log" to start the logs. They will print every 15 minutes	
c) Select "Stop Periodic Facility Log" to terminate the printing of the logs	
4. INSTRUCTIONS FOR THE REMOTE DISPLAYS IN THE NRC OVERFLOW ROOM:	
a) Turn on the video screen from the front of the monitor.	
b) Select, from the wall panel behind the monitor, the desired display (TSC1, TSC2, or TSC3, video, etc.)	
5. INSTRUCTIONS FOR SECURING THE FACILITY:	
a) Stop Periodic Facility Logs	
b) Sign off ERFIS by terminating the event and logging out	
c) Turn off the overhead projectors by selecting the SHUTDOWN function from the black AMX touch screen controller.	
d) Turn off the video screen from the front of the monitor	

Revision Summary for PEP-270, Rev. 7

The revision to this procedure are primarily due to A/R 30787, "Adverse Met Dose Assessment Calculations. The values used to calculate adverse met are now included in the procedure as well as the directions to perform adverse met calculations. Other changes are as follows:

<u>Section/Page</u>	<u>Change</u>
Various	Deleted form numbers and replaced with the Att number
Various	Changed ENS to ETS
Att 1 Step 4	Evaluate the adequacy of the EOF staff for activation. Minimum staffing was added.
Att 3 Step 1	Changed 'Obtain dosimetry', to 'Evaluate the need for dosimetry and inform the EOF-ERM. 1) Direct personnel to obtain dosimetry from the supply cabinet when appropriate. 2) Do not delay facility activation to issue dosimetry.'
Att 3 Step 3	Added : Facility Activation 1. Relieve the MCR of dose assessment responsibilities as soon as possible. NOTE: Emergency release is defined as radiological release which is the result of ,or associated, with the event. 1. Determine if a release is in progress
Att 3 Step 8	Added 'Determine and direct EOF habitability controls and Ban eating drinking, smoking and chewing at the GE declaration.'
Att 5 Step 3	Added NOTE: Emergency Release is defined as a radiological release which is as a result of, or associated with, the event and Determine if a release is in progress.
Att 5 Step 4	Added (Adverse meteorological looks at the worst case met conditions; 'G' stability class and wind speed of 1.0 mph.)
Att 6 Step 3	Added 'Based on actual meteorological data and Based on adverse met (Adverse meteorological looks at the worst case met conditions; 'G' stability class and wind speed of 1.0 mph.)'
Att 10 Step 3	Changed 'Do not begin creation of a new notification form' to 'Do not create a new notification'
Att 10 Step 3	Added Verify that the back up telephone system is functioning for each position when loss of the HEEC Telephone System occurs. See the Emergency Phone List EPL-001 Section 2.6
Att 10 Step 9	Added a) Ensure that a termination message is written, approved, and transmitted to the State and counties.

Revision Summary for PEP-270, Rev. 7

- Att 10 Step 5. Added a) Ensure that an Emergency Notification Form is completed.
- Att 10 Step 8 Added 'using the PPIF forms in PEP-310 Att. 14.'
- Att 11 Step 2 Changed Prepare the Emergency Notification Forms To Communicate the Emergency Notification Forms to the State and counties.
- Att 11 Step 2.a) Changed Ensure the Emergency Notification Forms are approved by the ERM. To Ensure the Emergency Notification Forms have been approved by the ERM.
- Att 11 Step 3 Added 'Prepare Event Notification Checklists as per PEP-310 Att 2-5'
- Att 10 Step 9 Added Ensure that a termination message is transmitted and communicated to the State and counties.
- Att 13 Step 10 Deleted 'Request security or local law enforcement assistance if the media is present in the plant parking lot.'
- Att 19 Changed Ebasco to Washington Group and Babcock and Wilcox to Framatone
- Att 20 Step 3 Added 'Update facility controlled documents as appropriate.'
- Added within the EOF to Distribute news releases to EOF, TSC and NRC personnel within the EOF.

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
PLANT OPERATING MANUAL

VOLUME 2

PART 5

PROCEDURE TYPE: Plant Emergency Procedure
NUMBER: PEP-310
TITLE: Notifications and Communications

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1.0 PURPOSE

The purpose of this procedure is to provide instructions and documentation for:

1. Requesting assistance from offsite support organizations (Immediate Response Organizations).
2. Notifying HNP Emergency Response Organization (ERO) personnel by automated and manual means.
3. Notification of offsite Emergency Response Organizations and authorities.
4. Notifications to the Nuclear Electric Insurance Limited (NEIL), Institute of Nuclear Power Operations (INPO) and American Nuclear Insurers (ANI).

2.0 INITIATING CONDITIONS

1. An emergency has been declared.
2. An event has occurred which requires a response from an offsite support organization (such as fire, medical or local law enforcement).

3.0 PROCEDURE STEPS

3.1 Requesting Off-Site Support

Instructions and documentation for response requests to offsite support organizations (fire, medical, law enforcement), also referred to as Immediate Response Organizations, is performed using PEP-310 Attachment 1.

3.2 Notifications Checklists

Checklists for use by the SEC-TSC/ERM to perform initial notifications following the declaration of an emergency are documented using the following appropriate form (Attachments to this procedure):

1. PEP-310 Attachment 2, Unusual Event
2. PEP-310 Attachment 3, Alert
3. PEP-310 Attachment 4, Site Area Emergency
4. PEP-310 Attachment 5, General Emergency

3.3 Activation of the Emergency Response Organization (ERO)

1. The Control Room staff initiates a Public Address System announcement directing on-site members of the ERO to activate the Emergency Response Facilities in accordance with PEP-230.
2. The Control Room staff initiates activation of the remainder of the ERO using PEP-310 Attachment 6. In the event of a Dialogic computer malfunction, PEP-310 Attachment 7 or PEP-310 Attachment 8, Part B, are used to initiate back-up methods of ERO activation.
3. Emergency Preparedness is to be contacted if any malfunction of the Dialogic System occurs.

3.4 Notification of Selected Personnel During an Unusual Event

For an Unusual Event, without staffing of the Emergency Response Facilities, selected personnel are notified using Part "A" of PEP-310 Attachment 8.

3.5 State and County Emergency Notifications

CAUTIONS

- Initial notification must occur within 15 minutes after the declaration of an emergency, a change in the classification level or a change in a Protective Action Recommendation.
 - Follow-up notification must occur within 60 minutes of the last notification while in a declared emergency.
-

1. Prepare the Notification Message

- A. Prepare the transmitted portion of the Emergency Notification Form (ENF), referring the guidelines in PEP-310 Attachment 10 as necessary, by :
 - 1) Using ERFIS/RTIN to prepare an automated version, or.
 - 2) Preparing an electronic equivalent of PEP-310 Attachment 9, or hand writing a paper copy of PEP-310 Attachment 9.
- B. The SEC-CR (or ERM if the EOF is activated) must review the message content, edit as necessary, and approve it for release.

2. Transmit the Notification Message

NOTES: Once the State and/or County Emergency Operations Centers (EOC's) are activated, they will request that notification be transmitted directly to the EOCs rather than the Warning Points (WPs).

ERFIS/RTIN prepared ENFs simultaneously faxed to each of the WPs and then each of the EOCs.

- A. If the required locations have been sent a copy of the Emergency Notification Form via ERFIS (1.A.1 above), communicate the content of the form using PEP-310 Attachment 11, ERFIS Method).
- B. If using the PEP-310 Att 9 Emergency Notification Form (1A.2 above), communicate the content using PEP-310 Attachment 12, Manual Method.

3.6 Nuclear Regulatory Commission Notifications

CAUTIONS

- Initial notification must occur as soon as possible (but not to exceed one hour) following the declaration of an emergency or a change in the classification level, unless continuous communications are established.
 - Activation of the NRC ERDS data link is required within 60 minutes of an Alert or higher event declaration.
 - Follow-up notification must occur within 60 minutes of the last message, unless continuous communications are established.
 - A qualified Emergency Communicator-NRC or SRO must be available to continuously communicate with the NRC via the Emergency Telecommunications System (ETS) or commercial telephone line within one hour of the initial event declaration.
-

NOTES: Initial NRC event notification from the MCR may be performed using the State/County Emergency Notification Form in order to expedite the notification.

Communications on the ETS are automatically recorded by the NRC.

Initial communications will likely be interrupted by patch-ins and/or requests to repeat information.

1. Prepare the information for the NRC Notification (AP-617, or State/County notification form of section 3.5 for initial MCR notifications)
2. Contact the NRC Headquarters Operations Officer at the NRC Incident Response Center by performing the following:
 - A. Pick up the receiver on the ETS telephone and call the NRC via one of the numbers listed on the phone.
 - B. If the ETS phone is not operable, use a normal telephone line to contact the NRC Incident Response Center. The numbers are listed on ETS phone and in the Emergency Phone List (EPL-001).
3. When the Headquarters Operations Officer responds, say: "THIS IS THE HARRIS NUCLEAR PLANT." and provide the emergency notification information.
4. Respond to any requests for additional information that you can answer, otherwise, state that the information is not yet available and will be provided in a follow up message.
5. Record the name of the individuals contacted and time of contact.

3.6 Nuclear Regulatory Commission Notifications (continued)

NOTES: ERDS can be activated from any EDS/RTIN terminal in the MCR or TSC.

ERDS = NORMAL should be displayed at the bottom center of ERFIS screens within 5 minutes of system activation in the following step.

6. Verify Emergency Response Data System (**ERDS**) is activated at an Alert or higher classification.

3.7 Notification of the INPO and ANI

CAUTION

Notification must occur within four (4) hours after declaration of an Alert, Site Area Emergency, or General Emergency.

1. Complete the Institute of Nuclear Power Operations (INPO) and American Nuclear Insurers (ANI) Notification Form (PEP-310 Attachment 13).
2. Using EPL-001, contact the INPO and ANI Duty Officers.
3. If contact is made with an answering machine or service:
 - A. Give the plant name, your name and telephone number for the Duty Officer to return the call.
 - B. When completing the form, enter "machine" instead of an individual's name.
4. Read the notification form directly to each Duty Officer and then record the name of each person notified, or
5. After notification is complete, record the date/time and sign the form.

3.8 Notification of Nuclear Electric Insurance Limited

NOTE: This notification is only applicable to events involving equipment damage.

1. The notification should be performed during normal working hours.
2. Notify the CP&L Corporate Insurance Administrator (see EPL-001) of the event and provide any details required for them to make the notification.

3.9 Transmittal of Plant Parameter Information to the TSC and EOF (ERFIS Failure)

1. Have the Admin and Logistics Manager (EOF) call in the following additional personnel while continuing with this procedure:
 - A. One Licensed operator to report to the Main Control Room to assist with data transmittal.

3.9 Transmittal of Plant Parameter Information to the TSC and EOF (ERFIS Failure)
continued

- B. One member of the operations staff to report to the TSC.
 - C. One member of the operations staff to report to the EOF.
 - D. Additional administrative support to report to the TSC and EOF for posting data.
2. A licensed operator in the MCR shall:
 - A. Prepare a copy of the Plant Parameter Information Form (PEP-310 Attachment 14) at 15 minute intervals, or as appropriate.
 - B. Fax the PPIF form, or verbally transmit the data, to the TSC and EOF (see EPL-001).
 3. TSC and EOF administrative personnel should post information as follows:
 - A. Copy the PPIF forms and distribute to appropriate personnel within the facilities, including the NRC, as directed.
 - B. Present the information by transcribing on status boards or project onto screens, as directed.
 4. TSC-SRO and EOF-SRO will provide clarification of data as needed
 5. When additional Operations staff arrive in the TSC and EOF they will:
 - A. Provide updated plant information from the Main Control Room to the TSC and EOF.
 - B. Relieve the TSC SRO and EOF SRO of the duties associated with clarification of data within their facility.
 - C. Coordinate data needs of the OSC and JIC.

4.0 GENERAL

4.1 Regulations and Other Commitments

- Alerting of on site personnel via Public Address announcement is required within 15 minutes of event declaration.
- Federal Regulations state "A licensee shall have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency." This is satisfied when the event's emergency classification level has been directly communicated to the State and County officials (at least one of the agencies).
- Notification of event declaration to the NRC is required "as soon as possible" and no later than 60 minutes after an event declaration.
- Activation of the NRC ERDS data link is required within 60 minutes of an Alert or higher event declaration.

4.1 Regulations and Other Commitments continued

- Notification to Institute of Nuclear Power Operations (INPO) and American Nuclear Insurers (ANI) must occur within four (4) hours after declaration of an Alert, Site Area Emergency, or General Emergency.
- Nuclear Electric Insurance Limited (NEIL) notification is only applicable to events involving equipment damage.

4.2 ERO Activation (Call-Out) During Normal Working Hours

NOTES: *Normal working hours are 0730 to 1600, Monday through Friday (other than CP&L Holidays).*

Control Room actions are the same for normal and off-normal hours.

The Dialogic Computer programming directs calls to where personnel are expected to be (that is, to work numbers during normal hours and a priority placed on calling home numbers during off-hours).

During "Normal working" hours ERO members are to report directly to the Emergency Response Facilities without taking time to "call in."

1. The Main Control Room (MCR), normally the Emergency Communicator - Control Room, makes a Public Address system announcement directing all ERO personnel to report to their Emergency Response Facilities.
2. ERO personnel are to respond to the PA announcement by directly reporting to their assigned emergency response facility.
3. The Emergency Communicator - Control Room activates the Dialogic system using Form PEP-310 Attachment 6.
 - A. The Dialogic system initiates the group call pagers of ERO members.
 - 1) The pagers will display a numeric message indicating the telephone number of Dialogic followed by a two number code (-X-1) where the "X" corresponds to the event classification level and the "1" signifies facility activation required (Pager carrying personnel are issued pocket cards to remind them of these codes).
 - 2) ERO personnel are to respond to this pager code by directly reporting to their assigned emergency response facility. No call back is required during normal working hours.

4.2 ERO Activation (Call-Out) During Normal Working Hours continued

- B. The Dialogic system also initiates telephone calls to work phone numbers of ERO personnel.
 - 1) ERO personnel are to respond to the telephone call and report to their Emergency Response Facility (ERF).
 - 2) Once alerted to the fact that the ERFs are being activated, all ERO personnel are to report. Personnel are not to wait at their desks for a call.
- 4. If an incorrect scenario has been entered into the Dialogic computer, or the System is making nuisance, invalid or disruptive calls, it can be deactivated by the MCR using section 6 of PEP-310 Attachment 6.
- 5. If the Dialogic System fails during normal hours:
 - A. The Emerg. Communicator - Control Room initiates a group page directly through the paging company using PEP-310 Attachment 7.
 - 1) The pagers will display a numeric message indicating the MCR telephone number followed by a two number code (-X-1) where the "X" corresponds to the event classification level and the "1" signifies facility activation required (Pager carrying personnel are issued pocket cards to remind them of these codes).
 - 2) ERO personnel are to respond to NNNNNNN-X-1 code by directly reporting to their assigned emergency response facility, without calling into the Control Room.
 - B. Manual call-out of unfilled ERO positions will be performed by the Admin and Logistics Manager (ALM) in the EOF at the direction of each emergency facility manager.

4.3 ERO Activation (Call-Out) During Off-Normal Hours

NOTES: *Off-normal hours are 1600 to 0730, Monday through Friday, weekends and CP&L holidays.*

Control Room actions are the same for off-normal and normal working hours.

The Dialogic Computer programming directs calls to where personnel are expected to be (that is, priority is placed on calling home numbers during off-hours).

4.3 ERO Activation (Call-Out) During Off-Normal Hours, continued

1. The Main Control Room (MCR), normally the Emergency Communicator - Control Room, makes a Public Address system announcement directing all ERO personnel to report to their Emergency Response Facilities.
2. On-site ERO personnel are to respond to the PA announcement by directly reporting to their assigned emergency response facility.
3. The Emergency Communicator - Control Room activates the Dialogic system using PEP-310 Attachment 6.
 - A. The Dialogic system initiates the group call pagers of ERO members.
 - 1) The pagers will display a numeric message indicating the telephone number of Dialogic followed by a two number code (-X-1) where the "X" corresponds to the event classification level and the "1" signifies facility activation required (Pager carrying personnel are issued pocket cards to remind them of these codes).
 - 2) Personnel with pagers are to call the number listed and answer the questions from the Dialogic computer.
 - a. The first qualified responder for each position, who meets FFD requirements, will be instructed to fill their ERO position.
 - i. These personnel are to report to their facility
 - b. Subsequent responders calling in to the Dialogic system who are:
 - i. Qualified in Key Positions, and who meet FFD requirements, will be notified to report to their facility.
 - c. The practice of having all available personnel in key positions respond to the facilities is designed to enhance the initial emergency response actions and timeliness of facility activation.
 - B. The Dialogic system also initiates telephone calls to home and cell phone numbers to activate the ERO for all required and unfilled positions.
 - 1) Personnel receiving telephone calls are to answer the questions from the Dialogic system.
 - 2) Once identified as being FFD the Dialogic system will notify the person of the position that they are filling and to report to their facility.
 - 3) None of the personnel contacted, other than the JIC Administrative Coordinator, make any calls. They immediately go to their facility.
 - 4) The JIC Administrative Coordinator initiates calls to Progress Energy Building (PEB) and Raleigh Civic and Convention Center (RCCC) setup and security personnel.

4.3 ERO Activation (Call-Out) During Off-Normal Hours, continued

- 5) The Dialogic system continues to attempt to fill all positions to the required staffing depth.
4. If an incorrect scenario has been entered into the Dialogic computer; or the System is making nuisance, invalid or disruptive calls, the system can be deactivated using section 6 of PEP-310 Attachment 6.
5. If the Dialogic System fails during off-normal hours:
 - A. The Emerg. Communicator - Control Room initiates a group page directly through the paging company using PEP-310 Attachment 7.
 - 1) The pagers will display "9999" followed by a two number code (-X-1) where the "X" corresponds to the event classification level and the "1" signifies facility activation required (Pager carrying personnel are issued pocket cards to remind them of these codes).
 - 2) ERO personnel are to respond to 9999-X-1 code by directly reporting to the assigned emergency facility, without calling into the Control Room.
 - 3) All responders for each position who meets FFD requirements will be instructed to fill their ERO position.
 - B. Manual call-out of unfilled positions will be performed by the Admin and Logistics Manager (ALM) in the EOF at the direction of each emergency facility manager.

4.3 ERO Activation (Call-Out) During Off-Normal Hours, continued

C. If both Dialogic and the group page methods have failed, the MCR must initiate a manual call-out of the ERO using PEP-310 Attachment 8, Part B.

- 1) The first person contacted in each position who meets FFD requirements will be instructed to fill their ERO position.
 - a. The on-shift E&RC and Maintenance personnel are directed to call in additional staff to fill the ERO pool (technician) positions.

4.4 Off-Normal Hours Manual ERO Call Out

NOTES: *During off-normal hours, without Dialogic operating, selected ERO personnel will be notified through a manual call out*

1. On-shift personnel have the following responsibilities:
 - A. On-shift Operations personnel initiate a group page directly through the paging company as described in step 5 of section 4.3 above.
 - B. On-shift Maintenance personnel call in personnel as needed to augment on-shift staffing to meet the emergency requirements. As a minimum:
 - 3 Electrical/I&C Personnel
 - 2 Mechanical Personnel
 - C. On-shift E&RC personnel call in personnel as needed to augment on-shift staffing to meet the emergency requirements. As a minimum:
 - 8 OSC RP Pool Personnel
 - 4 EnMon Team Personnel
 - 1 Chemistry Technician
2. Manual call-out of unfilled ERO positions will be performed by the Admin and Logistics Manager (ALM) in the EOF at the direction of each emergency facility manager.

5.0 REFERENCES

5.1 Referenced Plant Emergency Procedures

1. PEP-110, "Emergency Classification and Protective Action Recommendations"
2. PEP-230, "Control Room Operations"
3. PEP-270, "Activation and Operation of the Emergency Operations Facility"
4. PEP-340, "Radiological Assessment"
5. PEP-350, "Protective Actions"

5.2 Other References

1. AP-617, "Reportability Determination"
2. SP-015, "Emergency Plan Support"
3. EPL-001, "Emergency Phone List"
4. NRC IN 98-08, "Information Likely to be Requested if an Emergency is Declared"

6.0 DIAGRAMS/ATTACHMENTS

See Table of Contents

Request for Off-site Support

1. Support Determination

A. FIRE

- Apex Fire Department (Inside or outside the Protected Area) 911
- Holly Springs Fire Department (Inside Protected Area) 911

B. MEDICAL

NOTE: Duke Life Flight will not transport a chemically or radiologically contaminated patient.

NOTE: Carolina Air Care or Duke Life Flight may be contacted directly for helicopter transport of an injured individual (Bypass 911 Dispatch).

- Apex Rescue Squad (Ambulance) 911
- Carolina Air Care (Helicopter) 1-800-247-6264
- Duke Life Flight (Helicopter) 1-800-362-5433

C. OTHER

- Wake County Sheriff Department 911
- Other (specify): _____

2. Contacting the Support Organization

NOTE: If the telephone cannot be used or 911 does not answer, direct Security to relay the message by radio.

NOTE: When contacting 911, use an outside extension (362-7992 or 362-7997 from the MCR) this will provide the dispatch center with information specifying HNP as the originating location.

NOTE: 911 calls are routed to the Wake County center. If Apex Rescue of Fire Department is requested, the call will be transferred to the Apex dispatcher. When the transfer occurs, repeat the message.

A. Contact the selected organization (from above) and say:

“This is the Harris Nuclear Plant, please dispatch the (as checked above)”

B. Provide and document a brief description of the reason for the request:

Request for Off-site Support

2. Contacting the Support Organization (cont.)

NOTE: Do not allow the following request to delay emergency response (If not immediately available, a call back with the information is acceptable).

C. Request information: # Vehicles: _____ # Personnel: _____ ETA: _____

D. Record the time and date of the call: _____ / _____

3. Callback Requests:

If a call back verification is received, record:

Name of caller: _____ Time of call back: _____

4. Notify Security:

Notify Security of the following information, if available:

- Type of response (fire, sheriff, ambulance).
- Where to meet the responder (Security Building gate, helicopter landing zone).
- Number of vehicles and personnel responding.
- Estimated time of arrival.

5. Notify HP:

Notify the Duty HP Supervisor (or Radiation Control Director [RCD] in the TSC if Emergency Response Facilities are activated) of the following information, if available:

- Type of response (fire, sheriff, ambulance).
- Where the responder will be going.
- Estimated time of arrival.

6. Additional Notifications:

- A. If applicable, alert the receiving hospital to initiate their plan for handling contaminated patients (the destination can be obtained from the responding organization through the First Aid Team). _____ (Time)
- B. Notify a member of the EP staff (or *EP Advisor* in the EOF if Emergency Response Facilities are activated) to provide a courtesy notification of the event to offsite Emergency Management _____ (Time)
- C. Consult with the SSO to determine if notifications, other than the above, are performed, refer to AP-617 to determine whether an event notification under "Off-site Notification has or will be made" is required.

7. Completion:

Notification Completed: _____ (signature) _____ (date/time)

UNUSUAL EVENT NOTIFICATIONS CHECKLIST

Notification of Site Personnel - Standby Status **Completed**

CAUTION

During a security event, it may be advisable **NOT** to sound an alarm or make a PA announcement.

1. Make the following announcement over the public address system:
 - A. "Attention all personnel; attention all personnel: An Unusual Event has been declared due to (*brief description of initiating event*). All members of the ERO standby for further instructions. All other personnel continue with your present duties."
 - B. If there is a localized emergency (for example, high radiation, fire), announce its type and location and instruct personnel to stand clear of this area.
2. Repeat the PA Message(s).

Notification of the ERO - Standby Status **Completed**

1. Notify or direct notification of the ERO per Section 3.3 using Attachments 6-8 as appropriate.

Notification of State and Local Agencies **Completed**

1. Notify or direct notification of the State and local authorities within 15 minutes of the event classification by communicating an initial Emergency Notification Form (Attachment 9) per Section 3.5 using Attachment 11 or 12 as appropriate.

Notification of the NRC **Completed**

1. As soon as possible but within 60 minutes of the event classification, inform the NRC using the ETS or a commercial telephone per Section 3.6.

Notification Completed: _____
(signature) (date/time)

ALERT NOTIFICATIONS CHECKLIST

Notification of Site Personnel - Dismissal of Personnel **Completed**

CAUTION

During a security event, it may be advisable **NOT** to sound an alarm or make a PA announcement.

1. Have the Control Room sound the Site Evacuation Alarm for 15 seconds, then the TSC will make the following announcement over the public address system:
 - A. "Attention all personnel; attention all personnel: An Alert has been declared due to (*brief description of initiating event*). All members of the ERO report to your designated emergency response facility. All other HNP personnel exit the Protected Area and report to the Admin Building 2nd floor conference room area, and await instructions. All visitors, all nonessential contractor personnel, all declared pregnant females and all handicapped personnel please leave the site at this time."
 - B. If there is a localized emergency (for example, high radiation, fire), announce its type and location and instruct personnel to stand clear of this area.
 - C. If there is a potential for an airborne radiological release, consider announcing that there will be no eating, drinking, or smoking until further notice.
2. Repeat the PA Message(s).

Notification of State and Local Agencies **Completed**

1. Notify or direct notification of the State and local authorities within 15 minutes of the event classification by communicating an initial Emergency Notification Form (Attachment 9) per Section 3.5 using Attachment 11 or 12 as appropriate.

Notification of the NRC **Completed**

1. As soon as possible but within 60 minutes of the event classification, inform the NRC using the ETS or a commercial telephone per Section 3.6.
2. Activation of the NRC ERDS data link is required within 60 minutes of an Alert or higher event declaration.

Action Verification **Completed**

1. Have security verify public access areas have been evacuated.

Notification Completed: _____
(signature) (date/time)

SITE AREA EMERGENCY NOTIFICATIONS CHECKLIST

Notification of Site Personnel - Protected Area Evacuation **Completed**

CAUTION

During a security event, it may be advisable **NOT** to sound an alarm or make a PA announcement.

Consider radiological conditions when preparing to evacuate personnel. If high dose rates will be encountered it may be better to shelter non-essential personnel onsite.

1. Have the Control Room sound the Site Evacuation Alarm for 15 seconds, then the TSC will make the following announcement over the public address system:

A. If entering from no event or an Unusual Event:

"Attention all personnel; attention all personnel: A Site Area Emergency has been declared due to (*brief description of event*). All ERO members report to your designated emergency response facility. All other personnel exit the Protected Area and leave the site. Security, initiate Accountability."

If upgrading from an Alert:

"Attention all personnel, Attention all personnel: A Site Area Emergency has been declared due to (*brief description of event*). All personnel who are not part of the ERO exit the Protected Area and leave the site. Security, initiate Accountability."

B. If there is a localized emergency (for example, high radiation, fire), announce its type and location and instruct personnel to stand clear of this area.

C. If there is a potential for an airborne radiological release, consider announcing that there will be no eating, drinking, or smoking until further notice.

2. Repeat the alarm and PA Message(s).

Notification of State and Local Agencies **Completed**

1. Notify or direct notification of the State and local authorities within 15 minutes of the event classification by communicating an initial Emergency Notification Form (Attachment 9) per Section 3.5 using Attachment 11 or 12 as appropriate.

Notification of the NRC **Completed**

1. As soon as possible but within 60 minutes of the event classification, inform the NRC using the ETS or a commercial telephone per Section 3.6.

2. Activation of the NRC ERDS data link is required within 60 minutes of an Alert or higher event declaration.

Verify Accountability **Completed**

1. Security should report within 30 minutes of declaration of a Site Area Emergency that accountability is complete and provide the names of missing persons, if any. Log the time that Accountability was completed.

2. If not previously performed, direct Security to verify public access areas have been evacuated.

Notification Completed: _____ (signature) _____ (date/time)

GENERAL EMERGENCY NOTIFICATIONS CHECKLIST

Notification of Site Personnel - Protected Area Evacuation **Completed**

CAUTION

During a security event, it may be advisable **NOT** to sound an alarm or make a PA announcement.

Consider radiological conditions when preparing to evacuate personnel. If high dose rates will be encountered it may be better to shelter non-essential personnel onsite.

1. Have the Control Room sound the Site Evacuation Alarm for 15 seconds, then the TSC will make the following announcement over the public address system:
 - A. If entering into a GE from an Alert or lower:
"Attention all personnel; attention all personnel: A General Emergency has been declared due to (*brief description of event*). All members of the ERO report to your designated emergency response facility. All other personnel exit the Protected Area and leave the site. Security, initiate Accountability. There will be no eating, drinking, or smoking until further notice."

If upgrading from an Site Area Emergency:
"Attention all personnel, Attention all personnel: A General Emergency has been declared due to (*brief description of event*). There will be no eating, drinking, or smoking until further notice."
 - B. If there is a localized emergency (for example, high radiation, fire), announce its type and location and instruct personnel to stand clear of this area.
2. Repeat the alarm and PA Message(s).

Notification of State and Local Agencies **Completed**

NOTE: Protective Action Recommendations issued in accordance with PEP-110 are mandatory for a General Emergency Classification.

1. Notify or direct notification of the State and local authorities within 15 minutes of the event classification by communicating an initial Emergency Notification Form (Attachment 9) per Section 3.5 using Attachment 11 or 12 as appropriate.

Notification of the NRC **Completed**

1. As soon as possible but within 60 minutes of the event classification, inform the NRC using the ETS or a commercial telephone per Section 3.6.
2. Activation of the NRC ERDS data link is required within 60 minutes of an Alert or higher event declaration.

Verify Accountability **Completed**

1. If not previously done, Security should report within 30 minutes of declaration of the a General Emergency that accountability is complete and provide the names of missing persons, if any. Log the time that Accountability was completed.
2. Verify Security has performed the actions for Exclusion Area Evacuation per SP-15.

Notifications Completed: _____ (signature) _____ (date/time)

Emergency Response Organization Activation - Dialogic System

NOTE: If the System is not operable, proceed directly to Form PEP-310-7.

1. Scenario Determination:

Select the appropriate scenario number from the options below:

Off Normal Hours-1600 to 0730, Monday Thru Friday, Weekends and Holidays

- UNUSUAL EVENT - Pre-staffing Facilities21
- ALERT22
- SITE AREA EMERGENCY23
- GENERAL EMERGENCY.....24

Normal Working Hours, 0730 to 1600, Monday Through Friday

- UNUSUAL EVENT - Pre-staffing Facilities31
- ALERT32
- SITE AREA EMERGENCY33
- GENERAL EMERGENCY.....34

2. Connecting to the System:

NOTE: The number of step "B" below must be entered as soon as the system starts saying "Hello". If you wait too long the system will respond, "Hello, there is no activity at this time, goodbye" and hang up.

If this happens, hang up and start again at step "A".

<u>Operator Action:</u>	<u>Proper System Response:</u>
A. Dial 2452 on a plant extension or dial 362-2452 if using a Southern Bell line.	"Hello."
B. Immediately enter 4357 followed by the "#" key.	"Enter the scenario number you wish to work with."
C. Enter the appropriate scenario number (checked above) followed by the "#" key.	"You entered XX. Is that correct? Please press 9 for yes, 6 for no."
D. If correct, enter 9. - or - If incorrect, <ul style="list-style-type: none"> • enter 6 • hang up, and • repeat the above steps 	If "9" was entered: "The selected scenario has been completed. Do you want to queue it? Please press 9 for yes, 6 for no."
E. Enter 9	"You will queue scenario XX as an Emergency. Are you sure this is what you want to do? Please press 9 for yes, 6 for no."

Emergency Response Organization Activation - Dialogic System

2. Connecting to the System (continued):	
<u>Operator Action:</u>	<u>Proper System Response:</u>
F. Enter 9 , and Disregard the message (this a system default message not associated with the ERO activation process at HNP).	<i>"Press 1 to stop scenario monitor or press 2 to speak of the status. The selected scenario is active, goodbye."</i>
G. Hang up and prepare for system activation verification in the section below.	The System will soon dial telephones in the MCR (362-7992 or 362-7997).

3. System Activation Verification:	
<u>Operator Action:</u>	<u>Proper System Response:</u>
A. When one of the Direct Bell lines rings, answer the telephone and say	<i>Please enter a 2 followed by your social security number.</i>
B. Enter 2-123-45-6789	<i>You entered x-xxx-xx-xxxx is that correct? Please press 9 for yes, 6 for no."</i>
C. If correct, enter 9 , otherwise: enter 6 and follow the instructions to correct the SSN.	<i>Provide emergency classification and ask if you a fit for duty.</i>
D. Enter 9	<i>You will be filling the position of Main Control Room. Please enter your ETA in minutes.</i>
E. Enter 00 (any number will work)	<i>Thank you, goodbye</i>
F. If the computer functioned as expected, notify the SEC-CR that Dialogic is calling in the ERO. If the computer fails to communicate as listed, perform ERO activation using the pagers per Form PEP-310- 7.	

4. Completion:	
Inform SEC-CR of the results of the system activation.	
Notification Completed: _____	
(signature)	(date/time)

CAUTION:

Emergency Response Organization Activation - Dialogic System

The section below is performed **only if** the Dialogic system is malfunctioning.

5. Dialogic System Deactivation:	
If an incorrect scenario has been entered or the System is making nuisance, invalid, or disruptive calls, the Dialogic System can be deactivated using the following steps.	
<u>Operator Action:</u>	<u>Proper System Response:</u>
NOTE: Following the next step you must rapidly enter the first number of the password as the System is saying "Hello". If you wait too long the system will respond, "Hello, there is no activity at this time, goodbye" and hang up.	
A. Dial 2452 on a plant extension (or dial 362-2452 if using a Southern Bell line)	"Hello"
B. Immediately enter 4357 followed by the "#" key.	"Enter the scenario number you wish to work with."
C. Enter the appropriate scenario number (from Section 1) followed by the "#" key.	"You entered XX. Is that correct? Please press 9 for yes, 6 for no."
D. Enter a '9'.	"The selected scenario is active. Press 1 to complete (stop) it, a 2 to suspend (temporarily stop) it, or press 3 to exit."
E. Enter a '1'	"You will complete the scenario XX, Are you sure this is what you want to do? Please press a 9 for yes, 6 for no."
F. Enter a '9'.	"The selected scenario has been completed, goodbye."
G. Hang up the phone (The system has been deactivated)	

Emergency Response Organization Activation - Pager System

NOTE: When pre-staffing the emergency response facilities is NOT desired, perform Unusual Event ERO notifications manually per Form PEP-310-8.

1. Pager Code (Numeric Message) Determination:

Select the appropriate classification level from the options below:	<u>Pager Codes</u>
<input type="checkbox"/> Unusual Event (pre-staffing of the facilities)	9999*1*1 ##
<input type="checkbox"/> Alert	9999*2*1 ##
<input type="checkbox"/> Site Area Emergency	9999*3*1 ##
<input type="checkbox"/> General Emergency	9999*4*1 ##

Classification Level
 Code for "Response Required"
 Completes call

2. Activating the Group Page:

<u>Operator Action:</u>	<u>Proper System Response:</u>
A. From an outside line, dial 800-538-5388.	"Please enter the pager ID number."
B. Enter 123008.	"Please enter your numeric message after the tone."
C. After the three (3) beeps, enter the pager code determined in "1" above.	
D. Hang up.	
E. Record the time: _____	

Notification Call-Backs:

Call backs are not required, but if calls are received, notify individuals to report directly to their emergency facilities.

4. Completion:

Notification Completed: _____ (signature) _____ (date/time)

Manual Emergency Response Organization Activation /UE Notification

Part A - Unusual Event Notification of Selected Personnel

NOTES: EPL-001, Emergency Phone List, contains home, work, and pager numbers for personnel filling ERO Positions.

The SEC may elect to notify personnel in addition to those listed below.

1. Contact the on-duty ERO member (refer to the Intranet EP Web site or EPL-001) in the following positions, and notify them of the event. If the on-duty person can not be contacted, contact any of the other ERO members in that position who are Fit For Duty (FFD).

<u>ERO Position/Facility</u>	<u>Person Contacted</u>	<u>Time</u>
Site Emergency Coordinator-TSC	_____	_____
Emergency Response Manager / EOF	_____	_____
Emergency Preparedness Advisor / EOF	_____	_____
Company Spokesperson / JIC	_____	_____

2. Contact and inform the NRC Resident Inspector of the event. _____

3. Inform the SEC-CR of the results of the notification. _____
(Initials)

4. Sign for completion of ERO Notification of an Unusual Event

Notification Completed: _____
(signature) (date/time)

Manual Emergency Response Organization Activation /UE Notification

Part B - Manual Call-Out for Events Requiring Facility Activation

CAUTIONS

- Emergency notification messages shall be given only to the specified individuals and not to their spouse, children, baby-sitter, and so forth.
- If you encounter an answering machine, leave a message to call the plant with a phone number, but leave no emergency information.

<p>1. Contact the on-duty ERO member in the listed in the table on the next page. Refer to Intranet EP Web site and the Emergency Phone List (EPL-001), Attachment 1, to obtain contact numbers for personnel in each of the ERO positions.</p> <p>a. If the on-duty person can not be contacted, contact any of the other ERO members in that position.</p> <p>b. Ask each individual if they are Fit For Duty (FFD).</p> <p>1) If FFD:</p> <p>a) Advise them of the event declaration and that them this is a manual call out of the ERO.</p> <p>2) If the individual is <u>not</u> fit for duty, tell them a response is not required at this time, but to stay near their phone.</p>	
<p>2. If off-normal hours, contact on-shift personnel and provide them the following instructions:</p> <p>a. Maintenance; call in, as a minimum:</p> <ul style="list-style-type: none">• 3 additional Electrical/I&C techs• 2 additional Mechanics <p>b. E&RC; call in, as a minimum:</p> <ul style="list-style-type: none">• 8 additional OSC RC Pool personnel• 4 additional EnMon Team personnel• 1 additional Chemistry Technician	<p>_____</p> <p>_____</p>
<p>3. Contact and inform the NRC Resident Inspector of the event.</p>	<p>_____</p>
<p>4. Inform the SEC-CR of the results of the manual call-out</p>	<p>_____</p>
<p>5. Manual Call Out of ERO Completed: _____</p>	
<p>(signature)</p>	<p>(date/time)</p>

Manual Emergency Response Organization Activation /UE Notification

Part B - Manual Call-Out for Events Requiring Facility Activation, continued

<u>MCR ERO Position</u>	<u>Person Contacted / ETA (min)</u>	<u>Time</u>
Plant Operations Director (in MCR)	_____	_____
<u>OSC ERO Positions</u>		
Emergency Repair Director	_____	_____
Damage Control Coordinator	_____	_____
Radiological Control Coordinator	_____	_____
Chemistry Coordinator	_____	_____
<u>TSC ERO Positions</u>		
Site Emergency Coordinator-TSC	_____	_____
Technical Analysis Director	_____	_____
TSC AAT - Core Performance	_____	_____
TSC AAT - Electrical	_____	_____
TSC AAT - Mechanical	_____	_____
Radiological Control Director	_____	_____
Communications Director	_____	_____
Security Director	_____	_____
<u>EOF ERO Positions</u>		
Emergency Response Manager	_____	_____
Emerg Preparedness Advisor	_____	_____
Communications Manager	_____	_____
Emerg Communicator-State/County	_____	_____
Radiological Control Manager	_____	_____
Dose Projection Team Leader	_____	_____
Technical Analysis Manager	_____	_____
News Coordinator	_____	_____
Administrative & Logistics Manager	_____	_____
<u>JIC ERO Positions</u>		
Company Spokesperson	_____	_____
JIC Director	_____	_____

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

To Use ERFIS/RTIN to Perform Notifications:

NOTE: If limited access to ERFIS terminals, it may be helpful to obtain meteorological data prior to bringing up the notification form.

1. Select or enter the Turn-on-Code(TOC) **EP** "EMERGENCY PREPAREDNESS FUNCTION MENU" from the ERFIS Main Menu.
2. Select or enter TOC **LOGIN** "LOG INTO NETWORK DATABASE" to sign on to the system.
3. Select your ERO position from the Position Menu, type in your name, and select login.
4. Select or enter TOC **EVENT** "DECLARE EVENT"(if an event has not previously been declared on RTIN) and select O.K.
5. Select or enter TOC **EFORM** "EMERGENCY NOTIFICATION FORM" from the menu.

Form Completion Guidelines:

**Line
NO.**

INSTRUCTION

All Marking of a block on the notification form should be done clearly, such as by diagonally shading ½ of the block (■) when filling out manually (or by checking the block when using RTIN).

1. Mark the form as '**A**' **DRILL** or '**B**' **ACTUAL EMERGENCY**.

Mark **INITIAL** for

- The first message for the declared emergency classification level (either upgrade or downgrade).
- A change in Protective Action Recommendations.

Mark **FOLLOW-UP** if this is not the first message for the declared emergency classification level.

Assign a numerical message number.

- The first notification is message number 1.
- Each subsequent message is numbered sequentially.
- The message number does not begin again at 1 for any reason during the course of the declared event.
- Numbering of forms will be done automatically in ERFIS if you select "ADD".

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

Form Completion Guidelines (continued):

**Line
NO.**

INSTRUCTION

2. Record the name of the person who will be reading the message to the State & County personnel in the **REPORTED BY** space.

3. **TRANSMITTAL TIME/DATE** is not filled until message transmittal (If using ERFIS, this will be done automatically).

In the **CONFIRMATION PHONE NO.** blank, record a direct Bell Line phone number that off-site agencies could use for verification that this message is authentic.

4. **AUTHENTICATION** is not filled out until the message is being communicated.

5. Mark the form with the applicable **EMERGENCY CLASSIFICATION LEVEL**.

If the event has been upgraded or downgraded prior to completion of the off-site notification form, do not transmit old information. Complete a new notification form or modify the existing form to reflect current conditions.

However, if the event has been terminated prior to completion of the off-site notification form, mark the highest emergency classification level that existed and refer to item 6 below.

For a "termination" message, leave Item 5 blank.

For Follow-up messages, indicate the same classification as the previous message.

6. Mark the form with '**A**' **EMERGENCY DECLARATION AT** unless this is a termination message.

Mark the form with '**B**' **TERMINATION AT** for a termination message.

Indicate the time and date that the emergency classification was declared or terminated.

If the event has been terminated prior to completion of the off-site notification form, mark both '**A**' and '**B**' and indicate both the start and stop time of the event.

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

Form Completion Guidelines (continued):

Line
NO.

INSTRUCTION

7. Record the 'EAL Reference Number _____' and a short narrative of the event, using layman's terms, in the **EMERGENCY DESCRIPTION REMARKS**. Any of the following items should also be included:
- Estimate of any surface radioactive contamination in plant, on site or off site.
 - HNP emergency response actions underway (for example, evacuation of site personnel).
 - Any requests for assistance (for example, Rescue, Fire or Sheriff).

If the event is being terminated describe the bases for the termination.

If the event has been downgraded prior to completion of the previous off-site notification form, then record:

- The start and stop times that the higher classification level existed.
- The EAL for the higher classification level.
- The mitigating conditions that caused the classification level to be downgraded.

If the event has been terminated prior to completion of the previous off-site notification form, then record reason for the event and the reason for the termination.

8. Mark **PLANT CONDITION** as appropriate.
- Termination messages do not require Item 8 to be filled in.
- **'A' IMPROVING**
 - **'B' STABLE**
 - **'C' DEGRADING**

9. Mark **REACTOR STATUS** as follows:
- Termination messages do not require Item 9 to be filled in.
- Mark **'A' SHUTDOWN** if the reactor is shutdown and indicate the time and date, if applicable.
- Enter "N/A" for the time and date of shutdown if the reactor is at power.
- Mark **'B' POWER** if the reactor is at power and record the current reactor power level.
- Enter "N/A" for the power level if the reactor is shutdown.

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

Form Completion Guidelines (continued):

Line
NO. **INSTRUCTION**

10. Mark **EMERGENCY RELEASE(S)** as appropriate:

NOTE: Emergency Release is defined as ANY radioactive release which is a result of, or associated with, the event.

- Mark '**A**' **NONE** if no Emergency Release is occurring or has occurred.
- Mark '**B**' **POTENTIAL** if no release is occurring but the potential for a release exists (for example, an RCS leak into containment with the Containment fission product barrier in a "Jeopardy" condition, or based on plant data a trend predicts the final barrier will be breached and there are no systems capable of mitigating the trend).
- Mark '**C**' **IS OCCURRING** if an Emergency Release is occurring (for example, any SG tube leak, RCS leak outside containment, or fuel handling accident that results in a declared emergency is to be reported as an "Emergency Release.") A detectable Radiation Monitor reading increase is not required for a release to exist.
- Mark '**D**' **HAS OCCURRED** for Emergency Releases which have occurred but are now terminated.

11. Mark **TYPE OF RELEASES** as '**B**' **GROUND LEVEL** for all Emergency Releases.

Item 11 may be skipped if either 'none' or 'potential' were selected for emergency release.

For initial notifications, the remaining information for Item 11 may not be available. If this is the case, leave it blank.

- Mark '**A**' **AIRBORNE** for an airborne release.

Indicate the time and date for the release start and stop.

If the release is in progress at the time of this notification, enter "N/A" for stop time.

- Mark '**B**' **LIQUID** for an liquid release.

Indicate the time and date for the release start and stop.

If the release is in progress at the time of this notification, enter "N/A" for stop time.

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

Form Completion Guidelines (continued):

Line
NO.

INSTRUCTION

12. Mark **RELEASE MAGNITUDE** as appropriate:

This information may not be available for initial notifications.

Item 12 may be skipped if either 'none' or 'potential' were selected for emergency release.

- Mark **'A' CURIES/SEC**
- Mark **'B' CURIES**

Mark **NORMAL OPER. LIMITS** based on whether the release is below or above Technical Specification limits.

- Mark **'C' BELOW**
- Mark **'D' ABOVE**

Mark **'A' NOBLE GASES** and record magnitude in Curies or Curies/sec, if applicable.

Mark **'B' IODINES** and record magnitude in Curies or Curies/sec, if applicable.

Mark **'C' PARTICULATES** and record magnitude in Curies or Curies/sec, if applicable.

Mark **'D' OTHER** as N/A, not applicable to the Harris Plant.

13. Mark **ESTIMATE OF PROJECTED OFF-SITE DOSE** as appropriate:

This information may not be available for initial notifications.

Item 13 may be skipped if no emergency release has occurred.

- Mark **'A' NEW** if this is the first dose projection or if the release/release rate has changed significantly (approximately 15%).
- Mark **'B' UNCHANGED** if no new projection is available.

Enter **PROJECTION TIME** with the time the dose projection data was obtained.

Enter **ESTIMATED DURATION** with the time, in hours, of a potential or on going release.

Enter the **TEDE** and **THYROID CDE** doses in mrem. DO NOT change the units on the form.

STATE/COUNTY NOTIFICATION FORM INSTRUCTIONS

Form Completion Guidelines (continued):

**Line
NO.**

INSTRUCTION

14. Enter **METEOROLOGICAL DATA** as appropriate:
This information may not be available for initial notifications.
- Mark '**A**' **WIND DIRECTION** and enter the direction in degrees from.
 - Mark '**B**' **SPEED** and enter the wind speed in MPH.
 - Mark '**C**' **STABILITY CLASS** and enter the appropriate stability as 'A' - 'G'.
 - Mark '**D**' **PRECIPITATION** and enter 'RAIN' or 'SNOW' or 'SLEET' if any precipitation has occurred within the last 15 minutes.
15. Mark **RECOMMENDED PROTECTIVE ACTIONS** as appropriate per PEP-110.
- Mark '**A**' **NO RECOMMENDED PROTECTIVE ACTIONS** Unless a General Emergency has been declared.
 - Mark '**B**' **EVACUATE** if a General Emergency has been declared and enter each of the subzones for which this recommendation applies (for example, A,B,C,D, and so forth).
 - For '**C**' **SHELTER IN-PLACE** if a General Emergency has been declared, enter the remaining subzones which were not entered for evacuate.
 - '**D**' **OTHER** is not applicable to HNP. Areas beyond 10 miles will be considered only on an ad-hoc basis and will be directly communicated with the offsite agencies through the ERM.
16. **APPROVED BY** Obtain approval from the Site Emergency Coordinator or Emergency Response Manager prior to transmittal of the notification to the State and Counties. Either:
- Obtain signature, title, time and date on a hard copy prior to transmittal of the notification to the State and Counties, or
 - Enter name, title, time and date on ERFIS following approval of the hard copy prior to transmittal of the notification to the State and Counties.

NOTE: Transmittal Time/Date and authentication in Items 3 and 4 will be filled in following approval of the form. Any other changes made to the information after this signature must be initialed by the SEC or ERM as applicable.

State/County Notification Checklist-ERFIS Method

NOTE: If the Selective Signaling phone is inoperable, use the normal telephone system. If both phone systems fail use the UHF State frequency radio in the TSC or EOF (State and Wake WP do not have a radio).

1. Contacting the Offsite Authorities:

A. Obtain the **verification code words** from the following storage locations:

1. Emergency Communicator's position notebook in the Main Control Room (MCR).
2. Key locker at the Auxiliary Control Panel (ACP).
3. EOF supply cabinet.

NOTE: If you do not hear a tone, a conference network may already be established.

B. Using the Selective Signaling System, dial '10' and listen for a tone.

C. At the tone, perform one of the following:

- Dial **22** to contact the **Warning Points** (normally used by the MCR).
- Dial **33** to contact the State and County **EOCs** (commonly used by the EOF).
- Dial **44** to contact **all Warning Points and EOCs** (during EOC activation, as requested).

D. Wait for the initial response and say: "***This is the Harris Nuclear Plant, stand by.***"

E. After the responses cease, say: "***This is Harris Nuclear Plant, answer to roll call,***"

- "***State***" (Pause for response).
- "***Chatham County***" (Pause for response).
- "***Harnett County***" (Pause for response).
- "***Lee County***" (Pause for response).
- "***Wake County***" (Pause for response).

F. If one or more organizations did not respond to roll call:

1. Say "***Standby while I re-dial the missing location(s)***"
2. Re-enter the appropriate 2 digit code from step "C" above.
3. Repeat the roll call for the missing locations.

G. If a location(s) still does not respond, request an assistant to contact the missing organization(s) by phone (see EPL-001) and read the message to them.

H. Continue with the locations that are on the line.

2. For Initial Notifications (15 minute notification requirements):

A. Say "***This is the Harris Nuclear Plant, Emergency Notification number _____ was sent via fax. A _____ has been:***"

(state the classification level)

- ***declared; or***
- ***remains in effect***"

B. Say "***Refer to line 15 of your notification form***" and then report the PARs as listed.

C. Record the current time and date (24 hour clock) _____ / _____.

(Continued on next page)

State/County Notification Checklist-ERFIS Method

3. Communicate contents of notification form:

- A. If not done in step 2, say
"This is the Harris Nuclear Plant. A _____ continues to be in effect.
 (state the classification level)
- B. **Please confirm that a legible copy of the notification form has been received."**
- C. If any one responds that they are having difficulty reading the faxed notification form, read it over the line.
- D. Print and provide your name on line 2 of the form for "Reported By:"
- E. Say **"State please supply an authentication number"**
- F. Respond with the corresponding word from the list of verification code words.
- G. Record the authentication information on the form (line 4).
- H. Say **"are there any questions?"**
- I. If necessary, correct any errors or clarify misunderstood information.

4. Completion:

- A. Say **"respond to roll call with your name."**, call roll and record the information below. Identify the applicable location for each agency (WP is not used for notification/communication after EOC is activated).

<u>Agency:</u>	<u>WP:</u>	<u>EOC:</u>	<u>Name of Person Contacted:</u>
<i>State</i>			
<i>Chatham County</i>			
<i>Harnett County</i>			
<i>Lee County</i>			
<i>Wake County.</i>			

- B. When completed, say **"This is the end of the emergency notification. You may leave the network. This is the Harris Nuclear Plant, out."**
- C. If performed from the MCR, fax the Emergency Notification Form to the TSC and the EOF.
- D. If telecommunications problems were encountered, notify the Help Desk (refer to EPL-001)

E. State/County Notification Completed: _____ (signature) _____ (date/time)

State/County Notification Checklist - Manual Method

NOTE: If the Selective Signaling phone is inoperable, use the normal telephone system or the UHF State frequency radio in the TSC or EOF.

1. Contacting the Offsite Authorities:

A. Obtain the **verification code words** from the following storage locations:

1. Emergency Communicator's position notebook in the Main Control Room (MCR).
2. Key locker at the Auxiliary Control Panel (ACP).
3. EOF supply cabinet.

NOTE: If you do not hear a tone, a conference network may already be established.

B. Using the Selective Signaling System, dial **'10'** and listen for a tone.

C. At the tone, perform one of the following:

- Dial **22** to contact the **Warning Points** (normally used by the MCR).
- Dial **33** to contact the State and County **EOCs** (commonly used by the EOF).
- Dial **44** to contact **all Warning Points and EOCs** (during EOC activation, as requested).

D. Wait for the initial response and say: **"This is the Harris Nuclear Plant, stand by."**

E. After the responses cease, say: **"This is Harris Nuclear Plant, answer to roll call,"**

- "State"** (Pause for response).
- "Chatham County"** (Pause for response).
- "Harnett County"** (Pause for response).
- "Lee County"** (Pause for response).
- "Wake County"** (Pause for response).

F. If one or more organizations did not respond to roll call:

1. Say **"Standby while I re-dial the missing location(s)"**
2. Re-enter the appropriate 2 digit code from step "C" above.
3. Repeat the roll call for the missing locations.

G. If a location(s) still does not respond, request an assistant to contact the missing organization(s) by phone (see EPL-001) and read the message to them.

H. Continue with the locations that are on the line.

2. For Initial Notifications (15 minute notification requirements):

A. Say **"This is the Harris Nuclear Plant, Please record the following information on an Emergency Notification Form."** (pause to allow the locations to retrieve a form).

B. Say **"Line 1,** (Read each checked item) , **Emergency Notification number** _____

C. Say **"Line 5, a _____ has been:**

(state the classification level)

- declared; or
- remains in effect."

D. Say **"Line 15"** and then report the PARs as listed.

E. Record the current time and date (24 hour clock) _____/_____.

(Continued on next page)

State/County Notification Checklist - Manual Method

3. Communicate contents of notification form:

- A. If not done in step 2, say
"This is the Harris Nuclear Plant. A _____ continues to be in effect.
 (state the classification level)
Please record the following information on an Emergency Notification Form." (pause to allow the locations to retrieve a form).
- B. Read the form to the responding locations as follows:
1. Identify each line by number before communicating the content.
 2. Spell difficult words.
 3. Print and provide your name on line 2 of the form for "Reported By:"
 4. When you get to line 4, say **"State please supply an authentication number"**
 5. Respond with the corresponding word from the list of verification code words.
 6. Record the authentication information on the form (line 4).
 7. Complete reading the remainder of the form.
- C. Say **"are there any questions?"**
- D. If necessary, correct any errors or clarify misunderstood information.
- E. Say **"Copies of this notification will be sent to you via Fax."**

4. Completion:

- A. Say **"respond to roll call with your name."**, call roll and record the information below. Identify the applicable location for each agency (WP is not used for notification/communication after EOC is activated).

<u>Agency:</u>	<u>WP:</u>	<u>EOC:</u>	<u>Name of Person Contacted:</u>
State			
Chatham County			
Harnett County			
Lee County			
Wake County.			

- B. When completed, say **"This is the end of the emergency notification. You may leave the network. This is the Harris Nuclear Plant, out."**
- C. Fax a copy of the Emergency Notification Form to the applicable WPs and/or EOCs.
- D. If performed from the MCR, fax the Emergency Notification Form to the TSC and the EOF.
- E. If telecommunications problems were encountered, notify the Help Desk (refer to EPL-001)

F. Manual State/County Notification Completed: _____
 (signature) (date/time)

INPO/ANI NOTIFICATION FORM

Institute of Nuclear Power Operations (INPO)

American Nuclear Insurers (ANI)

1. "This is _____ from Carolina Power & Light at the Harris Nuclear Plant,
(name of caller)

telephone number 919-362-_____, concerning Unit One."
(call back number)

2. This is a drill. This is an actual emergency.

3. Emergency Classification:

Alert Site Area Emergency General Emergency

Basis: _____

4. Current Plant Conditions/Additional Information _____

5. Notification Authorized: _____ (ERM signature) _____ (date/time)

6. Name of person notified: (INPO) _____
(ANI) _____

7. Notification Completed: _____ (signature) _____ (date/time)

PLANT PARAMETER INFORMATION FORM

Date: _____ Time: _____

FUEL STATUS:	
1. GFFD	CPM
2. RCS Activity Sample	_____ (time) _____ $\mu\text{ci/ml}$
3. RCS I-131 DE Sample	_____ (time) _____ $\mu\text{ci/ml}$
4. Core Exit Temp	°F

REACTOR COOLANT SYSTEM (RCS) STATUS	
1. Reactor Power (PR)	_____ %
2. Reactor Power (IR)	(SUR) _____ DPM Amps
3. Reactor Power (SR)	(SUR) _____ DPM CPS
4. RCS Pressure	PSIG
5. PRZ Level	_____ %
6. Average Temperature	_____ °F
7. RCS Loop A	T_{hot} _____ °F T_{cold} _____ °F ΔT _____ °F
8. RCS Loop B	T_{hot} _____ °F T_{cold} _____ °F ΔT _____ °F
9. RCS Loop C	T_{hot} _____ °F T_{cold} _____ °F ΔT _____ °F
10. Subcooling	_____ °F
11. Charging Flow	_____ GPM
12. Letdown Flow	_____ GPM
13. SI Flow	_____ GPM
14. Boron Concentration (Sample)	_____ (time) _____ PPM
15. RVLIS (Dynamic/Full/Upper)	_____ %
16. RCS Leakage	_____ GPM
17. RCPs Operating	(A / B / C)

CONTAINMENT STATUS:	
1. Phase A - All Isolated	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. CVI - All Isolated	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Cnmt. Pressure (WR)	PSIG
4. Cnmt. Temperature	_____ °F
5. Hydrogen Concentration	_____ %
6. Sump Level	_____ %
7. RWST Level	_____ %
8. Spray Add. Tank Level	_____ %

SECONDARY SYSTEMS STATUS	
1. Main Steam Flow:	
A. FI-474	_____ MPPH
B. FI-484	_____ MPPH
C. FI-494	_____ MPPH
2. Main Feedwater Flow:	
A. FI-476	_____ MPPH
B. FI-486	_____ MPPH
C. FI-496	_____ MPPH
3. Aux. Feedwater Flow:	
A. FI-2050A	_____ KPPH
B. FI-2050B	_____ KPPH
C. FI-2050C	_____ KPPH
4. Steam Generator Press.:	
A. PI-476	_____ PSIG
B. PI-486	_____ PSIG
C. PI-496	_____ PSIG
5. Steam Generator Levels:	
Wide Range A	_____ %
B	_____ %
C	_____ %
Narrow Range A	_____ %
B	_____ %
C	_____ %
6. SG Safety(s) Open	_____ Number (A / B / C)
7. SG PORV(s) Open	(A / B / C)
8. Primary - Sec. Leakage	_____ GPM

PROVIDE DATA FOR BLANKS
CIRCLE THE CORRECT OPTION, OR LINE THROUGH OTHERS

ABBREVIATIONS AND SYMBOLS:

INOPERABLE ISOLATED NA = NOT APPLICABLE
▲ = OFF SCALE HIGH ▼ = OFF SCALE LOW

AC ELECTRICAL POWER:	
1. A-SA AC Bus Voltage	_____ V AC
2. B-SB AC Bus Voltage	_____ V AC

DC ELECTRICAL POWER:	
1. A-SA DC Bus Voltage	_____ V DC
2. B-SB DC Bus Voltage	_____ V DC

PLANT PARAMETER INFORMATION FORM

Date: _____ Time: _____

CSFST STATUS:	
CSF-1 Subcriticality	(Red/Magenta/Yellow/Green)
CSF-2 Core Cooling	(Red/Yellow/Green)
CSF-3 Heat Sink	(Red/Magenta/Yellow/Green)
CSF-4 RCS Integrity	(Red/Magenta/Yellow/Green)
CSF-5 Containment	(Red/Magenta/Yellow/Green)
CSF-6 RCS Inven.	(Yellow/Green)

SEISMIC CONDITIONS:	
1. "SEISMIC MON OBE EXCEEDED" Alarm	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. White Event Indicator on SMA Control Panel	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Alarm at Triaxial Spectrum Annunciator	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Noticeable Tremors	<input type="checkbox"/> Yes <input type="checkbox"/> No

METEOROLOGICAL CONDITIONS:	
1. Wind Speed (lower)	MPH
2. Wind Direction (lower)	Deg
3. Stability Class	

SPENT FUEL POOL SYSTEMS:	
1. Unit 1 New Fuel Pool Level	Ft.
2. Unit 1 Spent Fuel Pool Level	Ft.

PROVIDE DATA FOR BLANKS

CIRCLE THE CORRECT OPTION, OR LINE THROUGH OTHERS

ABBREVIATIONS AND SYMBOLS:

INOPERABLE ISOLATED NA = NOT APPLICABLE

▲ = OFF SCALE HIGH ▼ = OFF SCALE LOW

RADIATION MONITORS:

Effluent Monitors:	
1. CNMT Leak Det REM-1LT-3502-SA	µCi/ml
2. CNMT Hi Range REM-1CR-3589-SA	R/hr
3. CNMT Hi Range REM-1CR-3590-SB	R/hr
4. PVS 1 WRGM Effl. RM-21AV-3509-1SA	µCi/sec
5. PVS 1 WRGM (L/M/H) RM-21AV-3509-1SA	µCi/ml
6. PVS 1 PIG (Gas) REM-1AV-3509-SA	µCi/ml
7. TB Stk 3 WRGM Effl. RM-1TV-3536-1	µCi/sec
8. TB Stk 3 WRGM (L/M/H) RM-1TV-3536-1	µCi/ml
9. CVPETS REM-1TV-3534	µCi/ml
Main Steam Line Monitors:	
1. MSL A RM-1MS-3591-SB	mR/hr
2. MSL B RM-1MS-3592-SB	mR/hr
3. MSL C RM-1MS-3593-SB	mR/hr
Fuel Breach Monitors:	
1. VCT Area RM-1RR-3595	mR/hr
2. CSIP A Area RM-1RR-3599A	mR/hr
3. CSIP B Area RM-1RR-3599B	mR/hr
4. CSIP C Area RM-1RR-3599C	mR/hr
5. BRS Hx Area RM-1RR-3600	mR/hr
6. Ltn Hx Area RM-1RR-3601	mR/hr
7. Mod Hx Area RM-1RR-3602	mR/hr
Waste Process. Bldg. Radiation Monitors:	
1. Stack 5 WRGM Eff RM-1WV-3546-1	µCi/sec
2. Stk 5 WRGM (L/M/H)RM-1WV-3546-1	µCi/ml
3. Stack 5 PIG (Gas) REM-1WV-3546	µCi/ml
4. Stack 5A WRGM Eff RM-1WV-3547-1	µCi/sec
5. Stk 5A WRGM(L/M/H) RM-1WV-3547-1	µCi/ml
6. Stack 5A PIG (Gas) REM-1WV-3547	µCi/ml
7. TL&HS Disch RM-1WL-3540	µCi/ml
8. SWTS Disch RM-21WS-3542	µCi/ml
9. WMT Disch REM-1WL-3541	µCi/ml
10. Turbine Bldg Drain REM-1WL-3528	µCi/ml
Fuel Handling Bldg. Radiation Monitors:	
1. SFP South (Highest) RM-1FR-3564A-SA	mR/hr
2. SFP South (Highest) RM-1FR-3564B-SB	mR/hr
3. SFP South (Highest) RM-1FR-3565A-SA	mR/hr
4. SFP South (Highest) RM-1FR-3565B-SB	mR/hr
5. SFP North (Highest) RM-1FR-3566A-SA	mR/hr
6. SFP North (Highest) RM-1FR-3566B-SB	mR/hr
7. SFP North (Highest) RM-1FR-3567A-SA	mR/hr
8. SFP North (Highest) RM-1FR-3567B-SB	mR/hr

ESF Equipment Out Of Service: _____

Revision Summary PEP-310 Rev. 10

This revision is as a result of the Phase 3 of the ERO Reorganization. ENS was updated to ETS and clarifications to the procedure were added. Form number references were updated to attachment references.

Specifically, changes other than administrative in nature include:

Section Revision

Various	Changed references to form to attachments throughout the procedure.
Page 10 Step 4.3.3.2)i	Deleted 'Call cards are <u>not</u> used if Dialogic is functioning. The call cards are only used if the Dialogic system is not functioning.'
Page 10 Step 4.3.2.A. 2)ii	Qualified in other positions will be notified that "there are no positions for which you qualify." These personnel do <u>not</u> need to report to their facility.
Page 11 Step 4.3.5.1)	Removed the MCR number in The pagers will display "9999" followed by a two number code (-X-1) where the "X" corresponds to the event classification level and the "1" signifies facility activation required (Pager carrying personnel are issued pocket cards to remind them of these codes).
Page 11 4.3.5.2)	Changed 'ERO personnel are to respond to NNNNNNN-X-1 code by calling into the Control Room at the listed number.' To "ERO personnel are to respond to 9999-X-1 code by directly reporting to the assigned emergency facility, without calling into the Control Room.
Page 11 Step 4.3.5.3)	Changed 'The first responder for each position who meets FFD requirements will be instructed to fill their ERO position', to All responders for each position who meets FFD requirements will be instructed to fill their ERP positions.' and deleted
	a. Designated personnel have call tree responsibilities as outlined in section 4.4.
	b. These calls are to be accomplished prior to leaving for, or on the way to, the Emergency Response Facilities.
Page 11 Step 4.3.B.5. 4)	Deleted 'Subsequent responders in Key Positions, who meet FFD requirements, will be notified that their ERO position has already been filled, and: a.They are also to report to their facility. b.They do <u>not</u> call out additional personnel.
Page 11 Step 4.3.5.B.	Added 'Manual call-out of unfilled positions will be performed by the Admin and Logistics Manager (ALM) in the EOF at the direction of each emergency facility manager.'
Page 11 Step 4.3.C.1) and a-c	Removed as above from 'As above, the first person contacted in each position who meets FFD requirements will be instructed to fill their ERO position.' and deleted a.Those that have call tree responsibilities will be instructed to initiate their calls. b. Call tree responsibilities are to be accomplished prior to leaving for, or on the way to the Emergency Response Facilities. and deleted as outlined in section 4.4. from 'c. The on-shift E&RC and Maintenance personnel are directed to call in additional staff to fill the ERO pool (technician) positions as outlined in section 4.4.'

Revision Summary PEP-310 Rev. 10

Section Revision

- Page 12 Changed 4.4 Off-Normal Hours Manual ERO Call Trees to Off-Normal Hours Manual ERO Call Out
- Page 12 Deleted *Selected On-Shift, OSC, TSC, EOF, and JIC personnel have designated responsibilities for calling in additional personnel. Individuals with these calling responsibilities are provided pocket cards with the work and home phone numbers of additional personnel they are assigned to contact. These cards are updated at least quarterly.*
- Second NOTE
- Page 12 Step 4.4 A-C Changed A. 'On-shift Operations personnel initiate the process as described in step 5 of section 4.3 above.' To 'On-shift Operations personnel initiate a group page directly through the paging company. '

Removed:

B. On-shift Maintenance personnel call in personnel as needed to augment on-shift staffing to meet the emergency requirements. As a minimum:

- 3 Electrical/I&C Personnel
- 2 Mechanical Personnel

C. On-shift E&RC personnel call in personnel as needed to augment on-shift staffing to meet the emergency requirements. As a minimum:

- 8 OSC RP Pool Personnel
- 4 EnMon Team Personnel
- 1 Chemistry Technician

Page 12 Step 4.4.2. Deleted 2. 'The following OSC personnel, after being contacted by the MCR staff, contact the remainder of the facility staff. A. The Emergency Repair Director calls: 1) The OSC Logkeeper, who calls:

- One OSC Storekeeper
- One Mechanical Maintenance Planner
- One Elect/I&C Maintenance Planner

Added 'Manual call-out of unfilled ERO positions will be performed by the Admin and Logistics Manager (ALM) in the EOF at the direction of each emergency facility manager.

Revision Summary PEP-310 Rev. 10

<u>Section</u>	<u>Revision</u>
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Page 13 Steps 4.4.3. and 4.	<p>Deleted:</p> <p>3. The following TSC personnel, after being contacted by the MCR staff, contact the remainder of the facility staff.</p> <p>A. The Technical Analysis Director calls the AAT-STA.</p> <p>B. The Communications Director calls:</p> <p>1) The Emergency Communicator - NRC, who calls:</p> <ul style="list-style-type: none">• TSC SRO <p>2) TSC Logkeeper, who calls:</p> <ul style="list-style-type: none">• The Administrative Team (1 support staff and 1 librarian)• The TSC ERFIS Operator• The TSC Telecom/Computer Support. <p>4. The following EOF personnel, after being contacted by the MCR staff, contact the remainder of the facility staff.</p> <p>A. The Administrative & Logistics Manager calls:</p> <p>1) The Administrative Team Leader, who calls:</p> <p>a. The EOF Logkeeper</p> <p>b. The Administrative Team (2 support and 1 librarian)</p> <p>c. The EOF Administrative Setup Leader, who calls:</p> <ul style="list-style-type: none">• The EOF ERFIS Operator• The EOF Telecom/Computer Support• The EOF SRO <p>b. The Technical Analysis Manager calls:</p> <ul style="list-style-type: none">• EOF Mechanical Engineer• EOF Electrical Engineer• EOF I&C Engineer• EOF Civil Engineer. <p>C. The Radiological Control Manager calls:</p> <ul style="list-style-type: none">• The Technical Advisor• The Environmental Field Coordinator <p>D. The Communications Manager calls:</p> <ul style="list-style-type: none">• The Emergency Communicator-Corp. Comm/JIC• Representatives for the State, Chatham, Harnett, Lee, and Wake County EOCs
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Revision Summary PEP-310 Rev. 10

Section Revision

- E. The Dose Projection Team Leader calls:
 - Dose Projection Team Members
- 5. The following JIC personnel, after being contacted by the MCR staff, contact the remainder of the JIC staff.
 - A. The JIC Director calls:
 - 1) The Technical Specialist
 - 2) The Public Information Coordinator, who calls:
 - Four (4) Public Information Specialists
 - 3) The JIC Administrative Coordinator, who calls:
 - Progress Energy Building (PEB) and Raleigh Civic and Convention Center (RCCC) setup and security personnel (just as in a Dialogic call out), and
 - 2 JIC Administrative Assistants
 - The JIC Media Badging Specialist
- Att 1
6.B. Changed Notify the EP Supervisor (or *EP Advisor* in the EOF if Emergency Response Facilities are activated) to provide a courtesy notification of the event to offsite Emergency Management, to Notify a member of the EP staff (or *EP Advisor* in the EOF if Emergency Response Facilities are activated) to provide a courtesy notification of the event to offsite Emergency Management
- Att 1
6.C. Changed If notifications, other than the above, are performed, refer to AP-617 to determine whether a four (4) hour NRC event notification under "Off-site Notification has or will be made" is required. To Consult with the SSO to determine if notifications, other than the above, are performed, refer to AP-617 to determine whether an event notification under "Off-site Notification has or will be made" is required.
- Att 6 4. Removed verification response. This is to be performed by the ALM.
- Att 7 Pager codes have been changed to 9999 since no return calls to the MCR are required for this activation.
- Att 8 Added for user to refer to EPL-001 as well as the EP Web site
- Att 10
Step
16. Added either to '**APPROVED BY** Obtain approval from the Site Emergency Coordinator or Emergency Response Manager prior to transmittal of the notification to the State and Counties by either:' and or after the first bullet statement.
- Att 11 User format changes to sections 2 and 3.
- Att 12 User format changes to sections 2 and 3.
- Various Changed ENS to ETS

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT

PLANT OPERATING MANUAL

VOLUME 2

PART 5

PROCEDURE TYPE: Plant Emergency Procedure

NUMBER: PEP-500

TITLE: Recovery

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1.0 PURPOSE

This procedure provides guidance for the transition into, conduct of operations while in, and termination of the recovery phase of a classified emergency event involving the implementation of the Harris Nuclear Plant (HNP) Emergency Plan.

2.0 INITIATING CONDITIONS

1. An event has been classified as an emergency in accordance with PEP-110.
2. Conditions have stabilized and the Site Emergency Coordinator is preparing to terminate the emergency in accordance with guidelines in PEP-110.

3.0 PROCEDURE STEPS

3.1 Transition and Recovery Following an Unusual Event

- NOTE:
- This section is not applicable for events which are terminated from an Unusual Event following downgrading from a higher classification level.
 - The steps described in Sections 3.2 and 3.3 shall be used whenever the classification level has exceeded an Unusual Event.

1. The Site Emergency Coordinator shall:

- NOTE:
- The Event Summary Report is required within 24 hours of terminating an Unusual Event.
 - a) Direct the completion and distribution of an Emergency Notification Form, per PEP-310, to signify termination of the Unusual Event. For an Unusual Event this notification can also be considered the Event Summary Report.
 - b) Announce the following (or similar) message to plant personnel over the public address system:

“Attention all personnel, attention all personnel. The Unusual Event has been terminated. I repeat, the Unusual Event has been terminated.”
 - c) Notify the ERO of the decision to terminate the emergency per PEP-310.
 - d) Notify the Plant General Manager or designee to enter this procedure upon entry into Recovery from an Unusual Event.

2. Plant General Manager or designee shall:

- NOTE: At the discretion of the Plant General Manager or designee, the start of the recovery activities following an Unusual Event may be delayed until the next morning.

3.1 Transition and Recovery Following an Unusual Event (continued)

- a) Ensure any reportable event(s) is/are reported per procedures AP-617 and AP-620.
- b) Convene an event review meeting as soon as practical following the de-escalation from the Unusual Event. The review should involve key participants from the event , including State and County Management personnel and focus on establishing lessons learned and the generation of follow up action items.
- c) Ensure that a Significant Adverse Condition Investigation is initiated, in coordination with the Licensing and Emergency Preparedness Units Supervisors, in accordance with procedures CAP-NGGC-0200.
- d) Ensure that identified corrective actions are assigned to appropriate organizations and a method is established for tracking items to completion, in coordination with the Licensing and Emergency Preparedness Units Supervisors.

3.2 Transition Following an Alert or Higher Classification

- 1. As conditions improve and additional personnel and resources become available, certain recovery activities should be initiated prior to termination of the emergency. The process for transition to Recovery is illustrated in Attachment 1, Illustrated Recovery Process.
- 2. The Emergency Response Manager shall:
 - a) Determine Emergency Response Facilities staffing requirements until a Recovery Plan Outline describing the necessary Recovery Organization has been approved (see Attachment 3, Recovery Plan Outline).
 - 1) For events of the Alert classification, Emergency Response Organization personnel may be adequate to perform necessary recovery actions prior to returning to the normal HNP Organization.
 - 2) For event classifications of Site Area or General Emergency, the basic Recovery Organization (as illustrated in Attachment 2) shall be established (unless the event was transitory in nature - downgraded at time of first notification). Additional positions may be assigned to perform specific recovery activities.

NOTE: Detailed plans and procedures are not required to be developed prior to event termination and entry into Recovery. However, a Recovery Plan Outline should be completed and the recovery organization management positions identified and ready for staffing.

3.2 Transition Following an Alert or Higher Classification (continued)

- b) Direct the Site Emergency Coordinator and the Company Spokesperson to each develop an Issues/Strategies Package and determine the Onsite and Public Information Recovery Organization staffing requirements using Attachments 4, 6, and 7 for guidance.
- c) Develop an Offsite Issues/Strategies Package and determine the Offsite Recovery Organization staffing requirements using Attachments 5 and 7 for guidance.
- d) Convene a joint conference with the Site Emergency Coordinator, and the Company Spokesperson to:
 - 1) Review the Recovery Issues/Strategies Packages.
 - 2) Review the Recovery Organization staffing requirements.
 - 3) Develop and approve the Recovery Plan Outline.
- e) Conduct a formal discussion with regulatory and State authorities to ensure coordination and agreement is met for entry into Recovery.
- f) Complete and distribute an Emergency Notification Form, per PEP-310, to signify entry into Recovery.
- g) Concurrent with offsite notification, announce or direct the announcement of the following message (or similar message) to plant personnel over the public address system:

“Attention all personnel, attention all personnel. The emergency has been terminated and we have entered Recovery. I repeat, the emergency has been terminated and we have entered Recovery.”
- h) Notify the ERO of the decision to terminate the emergency and enter into Recovery.

3.3 Recovery Following an Alert or Higher Classification

NOTE: Select emergency response facilities or portions thereof may remain activated for some time after event termination during Recovery (for example, the JIC, Communications portions of the EOF).

1. The Recovery Manager should:
 - a) Ensure non-emergency (10 CFR 20) limits and controls for radiation exposure are used for repair activities conducted during Recovery (see existing plant exposure control procedures for guidance).
 - b) Ensure existing plant procedures, or procedures developed for specific tasks are used for plant repair activities during Recovery.
 - c) Maintain a log of specific recovery actions taken such as:
 - 1) Specific actions taken per this procedure.
 - 2) Communication with offsite authorities related to emergency and/or Recovery.
 - 3) Any meetings held to discuss conduct or close out of the recovery phase.
 - 4) Details on all repair or restoration projects need not be included.
 - d) Within eight (8) hours of entering Recovery, complete an Event Summary Report and transmit it to offsite authorities. Attachment 8, Event Summary Report Format, provides guidance on report content and format.
 - e) Ensure any reportable event(s) is/are reported per procedures AP-617 and AP-620 (such as 10CFR50.72, 10CFR20 Subpart M, or HNP Technical Specifications, section 6.9).
 - f) Approve any special procedures developed for recovery activities outside the plant.
 - g) As necessary, determine the scope and direct the Onsite Recovery Director and the Offsite Recovery Director to conduct an investigation and develop a Significant Adverse Condition Investigation Report in accordance with CAP-NGGC-0200.
 - h) Ensure action items identified during the transition phase are entered for tracking per CAP-NGGC-0200.
 - i) Direct and/or coordinate all actions of the Recovery Organization, and approve any reports released to offsite authorities.
 - j) Continue to develop and direct the activities of the Recovery Plan and supporting procedures.

3.3 Recovery Following an Alert or Higher Classification (continued)

- k) Continue verification and approval of information released by the Company Spokesperson which pertains to the emergency or recovery from the accident.
2. The Onsite Recovery Director should perform the following as required:
- a) Continue to identify and document issues relating to Recovery operations using Attachment 4 and procedure CAP-NGGC-0200.
 - b) Construct and implement the Recovery Plan and procedures for onsite activities. Procedures used for outage planning should be used to plan and schedule details of specific tasks.
3. The Offsite Recovery Director should perform the following as required:
- a) Continue to identify and document issues relating to recovery operations using Attachment 5 and procedure CAP-NGGC-0200.
 - b) Construct and implement the Recovery Plan and procedures for offsite activities.
 - c) Communicate with offsite agencies and coordinate CP&L assistance for offsite recovery activities as needed.
 - d) Develop and deliver any post-accident reports to offsite agencies (such as; development of an offsite accident analysis report).
 - e) Coordinate CP&L environmental sampling activities. This should include calculations for total population exposure based on data from available sources and/or mathematical modeling.
 - f) Develop a radiological release report including an estimation of the total projected population exposure as applicable.
4. The Company Spokesperson should direct the following as required:
- a) Continue to identify and document issues relating to recovery operations using Attachment 6 and procedure CAP-NGGC-0200.
 - b) Construct and implement the Recovery Plan and procedures for Public Information activities.

3.4 Exit from Recovery

1. The recovery phase can be terminated for an Unusual Event, when the Plant General Manager has ensured that plant conditions warrant exiting the recovery phase.
2. Convene an event review meeting as soon as practical following the de-escalation from the Unusual Event. The review should involve key participants from the event , including State and County Management personnel and focus on establishing lessons learned and the generation of follow up action items.
3. For any event or series of events which reached an Alert classification or higher, the Recovery Manager should consider the following prior to terminating the recovery phase:
 - a) Onsite and offsite organizations involved with the emergency and the recovery have been apprised of the existing conditions and of the anticipated termination of activities.
 - b) The news media has received a final status report on the emergency and recovery operations.
 - c) The emergency response facilities are no longer required, and actions have commenced to restore them to their pre-emergency condition.
 - d) A thorough review of all actions taken during the emergency and recovery phases has been conducted and a Significant Adverse Condition Investigation Report has been prepared following the guidance provided in CAP-NGGC-0200.
 - e) Necessary revisions of the HNP Emergency Plan and Plant Emergency Procedures have been identified to the Emergency Preparedness Unit Supervisor.
4. Perform the following to Terminate the Recovery Phase:
 - a) Issue a Detailed Incident Report containing the Significant Adverse Condition Investigation and a summary of major action items identified. This should be done in the form of a memo to the Vice President – HNP with copies going to all personnel involved in event (use of computer distribution to all plant personnel is preferred).
 - b) Ensure that the Detailed Incident Report, along with all emergency records (position logs and forms completed per Plant Emergency Procedures), are collected and submitted for records retention per RDC-NGGC-0001.

4.0 GENERAL

4.1 Recovery Goals

1. To assess the on and off site consequences of the emergency.
2. Perform clean up and repair operations as necessary to return plant to pre-event conditions.
3. Investigate the causes of the event and plan actions to prevent recurrence.

4.2 Federal Response

1. The NRC and/or FEMA will coordinate support from multiple federal government agencies.
2. Federal Agencies may request HNP provide resources (space, phones and so forth) to aid in their recovery efforts.

4.3 Definitions

1. Critique - A fact-finding meeting with the individuals involved in the occurrence to review the event(s), cause(s) and actions leading up to and throughout the declaration of an emergency.
2. Detailed Incident Report - A written report that summarizes the facts and assigns corrective actions. The report includes the facts of the emergency, describes the root cause(s) of any emergency response problems and recommends corrective actions.
3. Event Summary Report - A written report summarizing the incident prepared for delivery to offsite authorities (NRC, State and local). This report is required within 24 hours of terminating an Unusual Event and within 8 hours of terminating any higher event.
4. Investigation - An investigation is conducted to evaluate the event causes, actions and response each time the emergency plan is implemented. This will be accomplished by a close examination of the facts through critique(s), interviews, and a review of pertinent documentation and logs.
5. Recovery - The classification describing the plant status and organization which occurs after the emergency situation has been controlled/corrected and the event has been terminated. Recovery consists of the actions required to restore the plant to its pre-incident condition or to place the plant into a safe, long term shutdown condition.

4.3 Definitions (continued)

6. Termination - The point at which the classified emergency event is no longer considered to be an emergency. Termination of the emergency is formally identified by an Emergency Notification Form transmission and entry into Recovery.
7. Transition - The passage from the emergency phase into the recovery phase of an accident. Transition is the period of time following the stabilization of the emergency when plans and personnel, necessary to the recovery, are developed and identified. Transition activities are performed while in a classified event. That is, the emergency can not be terminated until a Recovery Plan has been developed and a Recovery Organization identified.

5.0 REFERENCES

5.1 Emergency Plan (PLP-201) References

1. Section 6, "Recovery"

5.2 Referenced Plant Emergency Procedures

1. PEP-110, "Emergency Classification and Protective Action Recommendations"
2. PEP-310, "Notification and Communications"

5.3 Other References

1. AP-617, "Reportability Determination"
2. CAP-NGGC-0200, "Corrective Action Program"
3. AP-620, "Licensee Event Report Development and Approval"
4. RDC-NGGC-0001, "NGG Standard Records Management Program"

6.0 DIAGRAMS/ATTACHMENTS

See Table of Contents

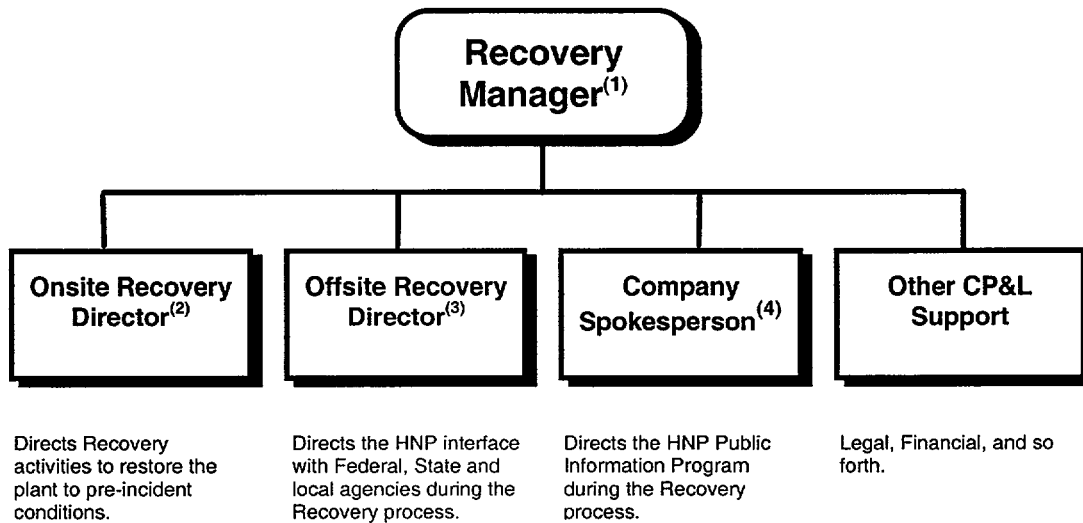
ILLUSTRATED RECOVERY PROCESS

1 ↓	Emergency Event	<ul style="list-style-type: none"> • Emergency Plan is implemented. • Actions are taken to return the plant to a safe condition.
	Transition	<ul style="list-style-type: none"> • Select Facilities are maintained at full or partial staffing. • The SEC, ERM and Company Spokesperson prepare a Recovery Issues/Strategies Package. • A Recovery Plan Outline is developed. • Organizational requirements are determined. • Personnel are standing by to assume the identified recovery positions.
2 ↓	Recovery	<ul style="list-style-type: none"> • An Event Summary Report is developed and issued. • A Significant Adverse Condition Investigation is conducted and action items identified • A detailed Recovery Plan is developed and implemented. • Activities to restore the plant to pre-incident conditions are conducted.
		<ul style="list-style-type: none"> • A Detailed Incident Report is developed and issued. • Records collected and vaulted.
3 ↓		

The above arrows represent points in time in the chronology of a classified emergency:

- ❶ The initiating state of emergency no longer exists.
- ❷ Formal termination of the emergency occurs (Notification of termination to Federal, State and County Officials by the Emergency Response Manager).
 - Emergency dose limits and special exceptions to procedures no longer apply.
 - Organizational titles are changed to reflect the new status.
- ❸ Exit from Recovery.

TYPICAL RECOVERY ORGANIZATION

**NOTES:**

- (1) The Recovery Manager position will normally be filled by the Vice President-HNP or designee.
- (2) The Onsite Recovery Director position will normally be filled by the Plant General Manager or designee. The normal plant staff will support recovery activities as required. A special Radiological Control Manager and/or Administrative and Logistics Manager may need to be appointed for events which involving severe plant damage or large releases of radioactive materials inside or outside the plant.
- (3) The Offsite Recovery Director position will normally be filled by the Manager Plant Support Services or designee.
- (4) The Company Spokesperson position will normally be filled by the Site Communications Manager or designee.

RECOVERY PLAN OUTLINE

SECTION I. RECOVERY ORGANIZATION

- A. Organization structure
- B. Assignment of authorities/responsibilities

SECTION II. ONSITE RECOVERY PROGRAM

- A. Major Goals
- B. Issues and Strategies

SECTION III. OFFSITE RECOVERY PROGRAM

- A. Major Goals
- B. Issues and Strategies

SECTION IV. PUBLIC INFORMATION RECOVERY PROGRAM

- A. Major Goals
- B. Issues and Strategies

ONSITE RECOVERY ISSUES/STRATEGIES GUIDE

NOTE: • Attachment 7, Issue/Strategies Form should be used to document items identified during the meeting. Complete as much of the form as possible but only the 'Description of Issue' section needs to be completed during initial meeting.

- In addition to the ERO positions listed, members of the Outage Planning group should attend the initial onsite recovery meeting to plan for the "Forced Outage" needed to restore plant to pre-event condition.

1. When directed, convene a meeting of key plant ERO personnel. It is suggested as a minimum the following members attend:

- Site Emergency Coordinator
- Radiological Control Director
- Emergency Repair Director
- Technical Analysis Director
- Plant Operations Director

2. Review existing conditions, outline the onsite issues to be resolved, and develop an Issues/Strategies Package that will form the basis for the onsite portion of the plant's Recovery Plan. Issues that should be considered in the formation of the package include:

A. Present Activities Being Performed By Plant Staff (Onsite ERO)

- Identify ongoing activities and determine the need to continue

B. Equipment Status Verifications

- Perform/Document secured lineups
- List/Identify inoperable equipment
- Hang appropriate tagouts
- Document temporary repairs/lineup
- Obtain appropriate samples to verify core status

C. Stabilization Of Plant For Long Term Cooling

- Identify present cooling lineup(s)
- Document available back-up cooling lineup(s)
- Confirm condition of RHR/CCW/ESW/CVCS/Cont. Spray
- Develop a plan to transition to long term cooling if required

ONSITE RECOVERY ISSUES/STRATEGIES GUIDE

D. System Repairs and Restorations

- Prioritize out of service equipment for restoration
- Plan restoration process by milestones
- Determine testing to increase/ensure equipment reliability
- Determine long term resolution of temporary repairs
- Examine options for temporary systems
- Bring in industry expertise (such as INPO, Westinghouse) as necessary
- Insure proper QA on any repairs made during the emergency

E. Radiological Controls And Area Decontamination

- Perform comprehensive surveys of onsite areas
- Establish additional survey and sampling frequency requirements
- Determine if additional monitoring equipment is required
- Develop a decon plan based on prioritized recovery of plant areas
- Commence Bioassay program
- Contract for large volume decontamination equipment/expertise

F. Water Management

- Identify sources, volumes and activity of water inventories
- Prioritize clean-up
- Verify/evaluate condition of existing clean-up systems
- Establish tagouts/controls to preclude inadvertent discharges
- Evaluate need to contract portable filtering systems/expertise
- Establish berms and restraints for control and mitigation of spills
- Evaluate need for additional onsite waste storage capability
- Evaluate need for additional burial space for waste

ONSITE RECOVERY ISSUES/STRATEGIES GUIDE

G. Logistics (Use guidelines for Forced Outage Scheduling)

- Identify manpower needs
- Obtain (if necessary) damage control equipment
- Consider use of outside specialist (INPO, Westinghouse)
- Set up training for off normal conditions (ALARA)
- Consider restricting site access
- Order extra HP supplies to support recovery
- Evaluate the need for additional security (crowd control)
- Evaluate the need for remote technology for inspections and cleanup
- Evaluate the need for additional communications capabilities

H. Documentation

- Initiate actions to complete any required NRC reports per AP-617 and AP-620.
- Develop onsite portions of Detailed Incident Report
- Develop onsite Recovery Plan (short/long term)
- Write special procedures to perform tasks outside the scope of normal procedures

I. Other

- Any item which does not fall into one of the listed categories

OFFSITE RECOVERY ISSUES/STRATEGIES GUIDE

NOTE: • Attachment 7, Issue/Strategies Form should be used to document items identified during the meeting. Complete as much of the form as possible but only the 'Description of Issue' section needs to be completed during initial meeting.

- In addition to the ERO positions listed, the Manager - Plant Support Services or a representative should attend this meeting.

1. Convene a meeting of key EOF Emergency Response Organization (ERO) personnel. It is suggested as a minimum the following members attend:

- Emergency Response Manager
- Emergency Preparedness Advisor
- Communications Manager
- Admin. and Logistics Manager
- Radiological Control Manager
- State and County Emergency Management Personnel

2. Review existing conditions, outline the issues to be resolved, and develop an Issues/Strategies Package that will form the basis for the offsite portion of the plant's Recovery Plan. Issues that should be considered include:

A. Present Activities Being Performed by EOF Staff

- Identify ongoing activities and determine the need to continue

B. Radiological

- Evaluate the need for an environmental sampling program
- If required, estimate total population dose
- Evaluate clean-up requirements
- Evaluate the need to bring in outside expertise for rad monitoring

C. Support to Offsite Authorities

- Consider outstanding requests from offsite authorities
- Keep offsite authorities apprised of onsite conditions and activities

OFFSITE RECOVERY ISSUES/STRATEGIES GUIDE

D. Corporate Interface

- Keep corporate management apprised of conditions and activities
- Provide information to legal organization as requested
- Identify issues applicable to HR and Employee Assistance

E. Logistics

- Identify manpower needs to support offsite recovery activities
- Identify all non-HNP personnel and activities currently in place
- Review equipment and material needs for EOF recovery activities
- Assist onsite and Public Information organizations in obtaining offsite support
- Evaluate the need for additional communications capabilities

F. Documentation

- Direct that an Event Summary Report be prepared
- Develop offsite portions of Detailed Incident Report
- Develop offsite Recovery Plan (short/long term)

G. Other

- Any item which does not fall into one of the listed categories

PUBLIC INFORMATION RECOVERY ISSUES/STRATEGIES GUIDE

NOTE: Attachment 7, Issue/Strategies Form should be used to document items identified during the meeting. Complete as much of the form as possible but only the 'Description of Issue' section needs to be completed during initial meeting.

1. When directed, convene a meeting of key Public Information Emergency Response Organization personnel. It is suggested as a minimum the following ERO members attend:
 - Company Spokesperson
 - JIC Director
 - Public Information Coordinator
 - Technical Specialist
 - Administrative Coordinator
2. Review existing conditions, outline the public information issues to be resolved, and develop an Issues/Strategies Package that will form the basis for the public information portion of the plant's Recovery Plan. Issues that should be considered in the formation of the package include:
 - A. Present Activities Being Performed by JIC Staff**
 - Identify ongoing activities and determine the need to continue
 - B. Offsite Interface**
 - Identify activities needed to keep offsite authorities apprised of CP&L Public Information activities
 - C. Documentation**
 - Develop the Public Information portion of the recovery plan
 - D. Other**
 - Any item which does not fall into one of the listed categories

EVENT SUMMARY REPORT FORMAT

*Date**Time*To: *Offsite Authority* (NRC, State, Local)From: *Name* (Recovery Manager)Subject: Event Summary Report of Emergency Declared at Harris Nuclear Plant

The Harris Nuclear Plant terminated from emergency status at *time* and entered into Recovery.

The following is a review of events and items pertaining to *Indicate EAL and Type* reported on *date*.

Provide a narrative of the event (describe the event giving the facts of the emergency including as a minimum:)

1. Time and description of initiating events (i.e., "On July 4, 1997, at 0640 hours a bomb threat was received at....."). Include information on personnel injuries and status. **(DO NOT INCLUDE NAME(S) OF VICTIMS UNLESS THE FAMILY HAS BEEN NOTIFIED).**
2. Performance of initial notifications to offsite authorities, to include time, location and mode of notification (That is: fax, radio, telephone).
3. Requests for offsite assistance, including time and type.
4. The magnitude of any radiological release and Protective Action Recommendation information as applicable.
5. Telephone numbers where people can call for any additional information (such as the Rumor Control or Media Centers).

Approval: *Signature*

Revision Summary For PEP-500 Rev. 11

Revision 10 included the items related to Phase 3 of the ERO Reorganization, specifically the removal of the Company Technical Spokesperson. Details are listed below:

<u>Section</u>	<u>Description of Change</u>
Title Page	Added Information Use
3.1.2.b.	Added ', including State and County Management personnel' to 'Convene an event review meeting as soon as practical following the de-escalation from the Unusual Event. The review should involve key participants from the event , including State and County Management personnel and focus on establishing lessons learned and the generation of follow up action items.
3.4.2.	Added same wording from 3.1.2.b. 'Convene an event review meeting as soon as practical following the de-escalation from the Unusual Event. The review should involve key participants from the event , including State and County Management personnel and focus on establishing lessons learned and the generation of follow up action items.' And removed b) and c).
3.4	Added Perform the following to... to Perform the following to Terminate the Recovery Phase
5.0 and various	CAP-NGGC-0001, "Corrective Action Management" was replaced with CAP-NGGC-0200, "Corrective Action Program" and also replaces AP-605, "Root Cause Investigation" RMP-006, "Quality Assurance/Vital Records Program" was replaced with RDC-NGGC-0001, "NGG Standard Records Management Program"
various	Replaced Root Cause Investigation with Significant Adverse Condition Investigation
Att 5 Step 1	Added State and County Emergency Management Personnel to
Att 6	Removed Company Technical Spokesperson and replaced with Technical Specialist
Att 7	Deleted form number

INFORMATION
USE

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
PLANT OPERATING MANUAL
VOLUME 2
PART 5

PROCEDURE TYPE: Plant Emergency Procedure
NUMBER: PEP-340
TITLE: Dose Assessment

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1.0 PURPOSE

The purpose of this procedure is to provide guidance for performing offsite radiological dose assessments during an emergency at the HNP. The HNP Dose Assessment and Protective Action Recommendation (DAPAR) program is designed to be used in conjunction with this procedure.

2.0 INITIATING CONDITIONS

1. An emergency has been declared.
2. Events require the projection of offsite doses due to an actual or potential release of radioactive materials near or beyond the site boundary.

3.0 PROCEDURE STEPS

CAUTION

Use of DAPAR to project doses based on normal plant readings would indicate offsite doses many magnitudes higher than actual offsite doses. Care should be taken in making a Protective Action Recommendation based on program output if there are no indications of Core Damage.

3.1 Start Up

1. Start the computer.
2. Ensure no other programs are running.
3. Start DAPAR program – A shortcut icon labeled DAPAR v2.0 should be located on the desktop, if not locate the program on the Y:\ Access Databases, Shared, Dose Assessment.
4. If the assigned Dose Assessment Computer does not operate or the DAPAR program will not run, use another Dose Assessment Computer if available or install the program on any computer from CDs or Disks located in Emergency Communicator's Desk in the Control Room or the Dose Projection Cabinet in the EOF.

3.2 ERFIS Data

1. Obtain monitored release path information by accessing ERFIS Group Display 3DOSE.

3.3 Basic Program Flow Diagram

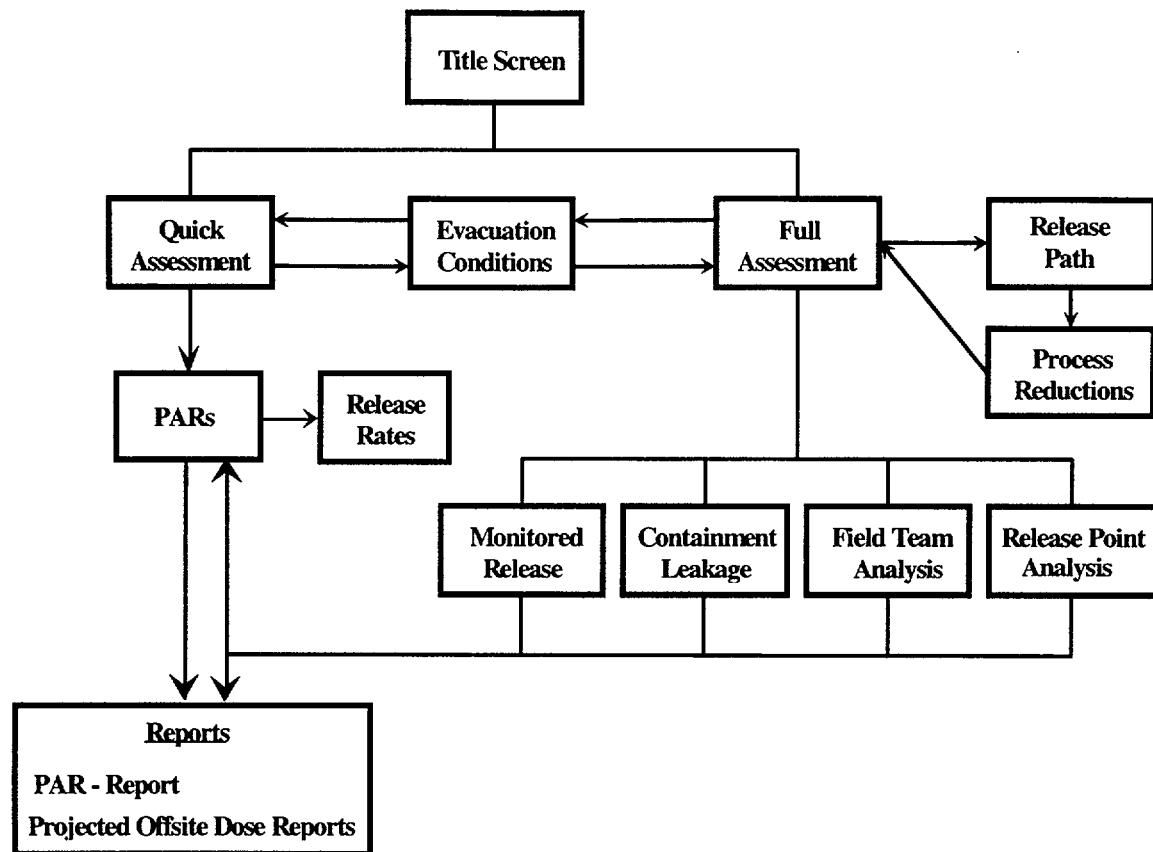


Diagram shows basic tasks which can be performed by the program and how user would maneuver between them.

3.4 Title Screen

The title screen shows the application version and offers the user three options to direct program flow

1. **Quick Assessment**
This option is designed to be used by the Control Room. It performs assessments based on design basis default source terms.
2. **Full Assessment**
This option is designed to be used by the Dose Assessment Staff in the EOF. It allows user more options in performing calculations
3. **Quit**
Exits the Program.

3.4 Title Screen (continued)

NOTE: Once the User selects “Quick Assessment” or “Full Assessment” returning to the Title screen will reset all program values.

4. User should now go to:
 - a. Section 3.5 for Quick Assessment.
 - b. Section 3.7 for Full Assessment.

3.5 Quick Assessment

The Quick Assessment operations and calculations are identical to the Full Assessment method for a monitored release, but utilizes default release path and core damage assumptions for the determination of offsite doses. This allows for a rapid assessment from the Main Control Room.

Monitor Information	Relief Inputs	Release Parameters
<input type="radio"/> Plant Vent	S/G Press: <input type="text" value="800"/>	Wind Speed (MPH): <input type="text" value="1.0"/>
<input type="radio"/> Turbine Building Vent	SRVs Open: <input type="text" value="0"/>	Wind Direction (From): <input type="text" value="002"/>
<input type="radio"/> WP Building Stack 5	PORV Open: <input type="checkbox"/>	Stability Class (A-G): <input type="text" value="D"/>
<input type="radio"/> WP Building Stack 5a		
<input checked="" type="radio"/> Main Steam Line		
Reading (mR/hr): <input type="text" value="2.00E+02"/>	Time After Rx S/G (h:mm): <input type="text" value="3:00"/>	Max ETE: <input type="text" value="3:25"/>
		Release Duration (h:mm): <input type="text" value="3:25"/>
		<input type="button" value="PAUSE"/> <input type="button" value="Back"/>

1. Select **Monitor Information** – User chooses the appropriate monitor from the listed Monitors.
 - a. Plant Vent – this is stack #1, the value for the reading of this monitor is provided at computer point RAV3509H. It reads out in $\mu\text{Ci}/\text{sec}$.
 - b. Turbine Building Vent – this is stack #3, the value for the reading of this monitor is provided at computer point RTV3536D. It reads out in $\mu\text{Ci}/\text{sec}$.
 - c. WP Building Vent 5 – the value for the reading of this monitor is provided at computer point RWV3546H. It reads out in $\mu\text{Ci}/\text{sec}$.
 - d. WPB Building Vent 5A – the value for the reading of this monitor is provided at computer point RWV3547H. It reads out in $\mu\text{Ci}/\text{sec}$.

3.5 Quick Assessment (continued)

- e. **Main Steam Line** – The Main Steam Line radiation monitors are used for this release point. The computer points for these monitors are RMS3591A, RMS3592A, and RMS3593A. Since these monitors read out in mR/hr a flow has to be determined to calculate the $\mu\text{C}/\text{sec}$ release rate. This is accomplished by entering the steam pressure and the number of relief valves that are open in the section labeled “Relief Inputs”.
2. **Input Reading Information** – Enter the appropriate monitor reading in $\mu\text{Ci}/\text{sec}$ or mRr/hr.
3. **Input Time After Rx Shutdown (S/D) Information** – Enter the time since the reactor was shutdown in hours and minutes (hh:mm).

NOTE: If Met Tower data is unavailable, another source of meteorological data may be used such as the National Weather Service or a local TV or Radio broadcast stations and the stability class can be estimated.

4. **Input Meteorological Data** – Enter the appropriate data from plant instruments as follows:
 - a. **Wind Speed (MPH)** – Obtain the Lower Wind Speed from the ERFIS computer or the Control Room.
 - b. **Wind Direction (From)** – Obtain the Lower Wind Direction from the ERFIS computer or the Control Room.
 - c. **Stability Class (A-G AND 1-7)** – Obtain the stability class from the ERFIS computer or the Control Room. Stability Classes:

A	1	Extremely unstable conditions
B	2	Moderately unstable conditions
C	3	Slightly unstable conditions
D	4	Neutral conditions
E	5	Slightly stable conditions
F	6	Moderately stable conditions
G	7	Extremely stable conditions

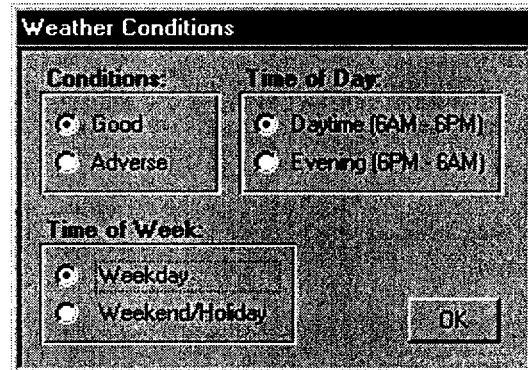
3.5 Quick Assessment (continued)

- d. If the stability class is not available use the following table to choose appropriated value:

Surface Wind Speed (mph)	Daytime Solar Radiation (For moderate cloud cover move one column to the right)			Nighttime Conditions		Day or Night
	Summer/ Clear Sky	Spring & Fall Clear Sky	Winter	Thin overcast (>1/2 cloud cover)	<3/8 cloud cover	
	A	A-B	B			D
0.0 to 9.0	A-B	B	C	E	F	D
9.0 to 13.5	B	B-C	C	D	E	D
> 13.5	C	C-D	D	D	D	D

NOTE: The conditions Good or Adverse in the following step are in relation to the weather. Adverse is heavy rain or any other condition which would hinder the flow of traffic.

5. **Set Evacuation Conditions**
Click on the “Conditions” button to select the appropriate conditions for the program to calculate the Maximum Evacuation Time Estimate (ETE). Once the user sets the evacuation conditions the program will place the Max ETE value in the “Release Duration” and “Max ETE” text boxes.

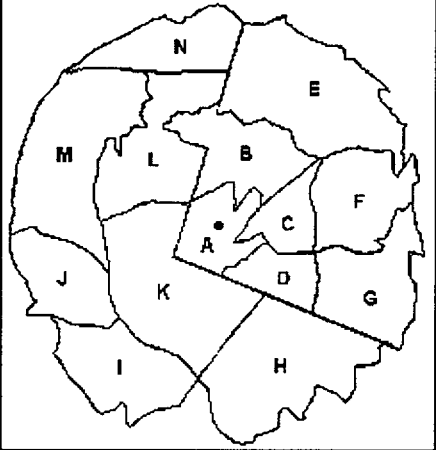


6. If the **Release Duration** is known change the displayed time to the known release duration. If a good estimate of the release duration can not be determined use the default value entered by the program.
7. Click the **PARs** button – The program will calculate the downwind doses based on user inputs and display Protective Action Recommendation form.

3.6 Protective Action Recommendations

1. The Protective Action Recommendation (PAR) form displays a summary of the downwind dose projections with a map showing which Subzones (grayed areas) the Protective Actions Guidance (PAG) is exceeded. Additional evaluation of the affected subzones would be made using PEP-110 Attachment 3.

Protective Action Recommendations

<p>Assessment Method Monitor Reading (Quick)</p> <p>Conditions Good, Daytime, Weekday</p> <p>Stability Class: <input type="text" value="A"/></p> <p>Wind Direction (from): <input type="text" value="002"/></p> <p>Wind Speed (mph): <input type="text" value="20"/></p> <p>Release Duration: <input type="text" value="3:25"/></p>	<p>Subzones to be Evacuated</p> 																													
<p>RR= <input type="button" value="Print"/> <input type="button" value="Back"/></p>																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Affected Subzones</th> <th>(Dose in Rem)</th> <th>TEDE</th> <th>CDE thy</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Ring 1 <i>(0-2 miles)</i></td> <td rowspan="2">A</td> <td>No Protection:</td> <td>1.29E-04</td> <td>2.25E-05</td> </tr> <tr> <td>Sheltered:</td> <td>1.16E-04</td> <td>1.62E-05</td> </tr> <tr> <td rowspan="2">Ring 2 <i>(2-5 miles)</i></td> <td rowspan="2">D, K</td> <td>No Protection:</td> <td>3.45E-06</td> <td>6.03E-07</td> </tr> <tr> <td>Sheltered:</td> <td>3.09E-06</td> <td>4.33E-07</td> </tr> <tr> <td rowspan="2">Ring 3 <i>(5-10 miles)</i></td> <td rowspan="2">H, I</td> <td>No Protection:</td> <td>1.59E-06</td> <td>2.78E-07</td> </tr> <tr> <td>Sheltered:</td> <td>1.43E-06</td> <td>2.00E-07</td> </tr> </tbody> </table>			Affected Subzones	(Dose in Rem)	TEDE	CDE thy	Ring 1 <i>(0-2 miles)</i>	A	No Protection:	1.29E-04	2.25E-05	Sheltered:	1.16E-04	1.62E-05	Ring 2 <i>(2-5 miles)</i>	D, K	No Protection:	3.45E-06	6.03E-07	Sheltered:	3.09E-06	4.33E-07	Ring 3 <i>(5-10 miles)</i>	H, I	No Protection:	1.59E-06	2.78E-07	Sheltered:	1.43E-06	2.00E-07
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		Sheltered:	1.43E-06	2.00E-07																										

2. Explanation of displayed data:
 - a. Assessment Method – Method used to calculate downwind doses.
 - b. Evacuation Scenario – Entered evacuation conditions and meteorological data, along with Release Duration.
 - c. Form displays the meteorological data used to determine PAR.
 - d. Form displays an EPZ map, Subzones in which the population may receive doses exceeding a PAG will be shaded.
 - e. Affected Areas – This is the downwind Subzones which are affected by the release.

3.6 Protective Action Recommendations (continued)

NOTE: The State/County Notification Form uses the units of mRem for reporting. Convert Rem to mRem.

- f. TEDE and CDE Thyroid (thy)– Shows the highest doses (no protection and sheltered) in Rem for each Ring.

3. The **RRs** button will display the total release rates for isotopic groups in Ci/sec.

Group Release Rates		
	True	Equivalents
Noble Gases:	2.12E+01	2.01E+02 (X=133)
Halogens:	3.82E+01	1.36E+01 (I-131)
Particulates:	4.06E+02	4.61E+02 (Cs-137)
(Units of Ci/sec)		[OK]

4. User can now **Print** the PARs or

5. Go **Back** and modify inputs. This will return user to either Quick Assessment Form or one of the Assessment Method forms available in Full Assessment.

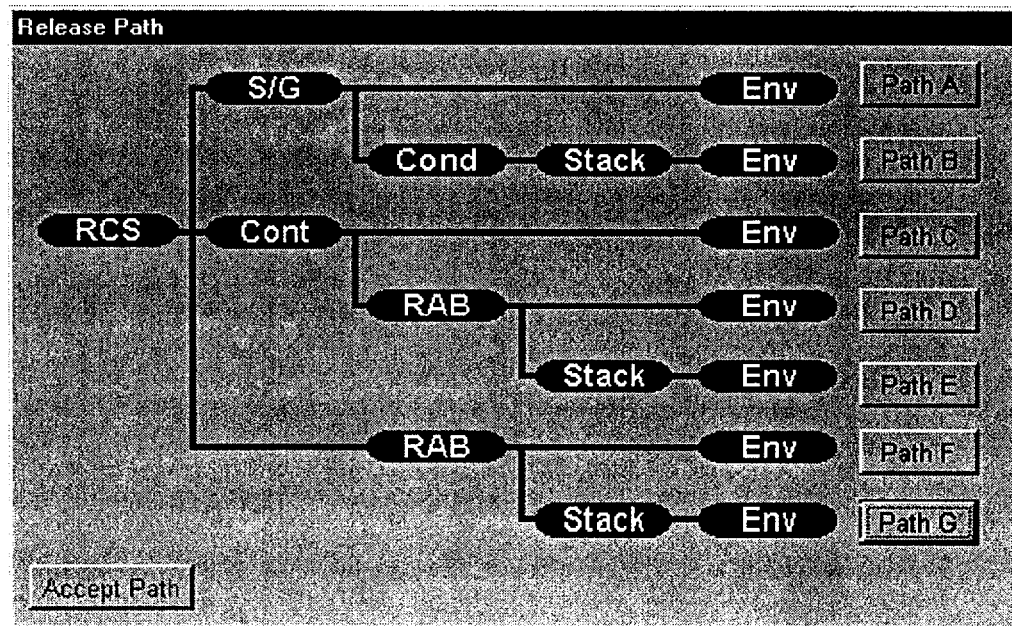
3.7 Full Assessment

1. The Full Assessment operations and calculations are identical to the Quick Assessment method for a monitored release, but it allows the user to make more choices in performing dose projection calculations.
2. Choosing the Full Assessment option directs the program to a baseline data entry window. The window is divided into four input areas.

Source Term		Meteorological Data	
<input checked="" type="checkbox"/> Reactor Core Accident	Type of Damage: <input checked="" type="radio"/> Gap <input type="radio"/> Melt	Wind Speed (MPH):	1.0
<input type="checkbox"/> Spent Fuel Accident	Amount of Damage (%): 10	Wind Direction (From):	002
<input type="checkbox"/> Waste Gas Decay Tank Accident	Hours After S/D (hr:mm): 1:00	Stability Class (A-G):	D
	PRF: 0.4	Max ETE:	3:25
Dominant Release Path		Release Duration (hr:mm):	3:25
<RCS>-<CONT>-<ENV>		Assessment Method	
Select Path		Monitored Release	
		Continue Back	

3.7 Full Assessment (continued)

3. Choose **Source Term** – This allows user to choose the appropriate source term depending on plant conditions and the type of accident that has occurred.
 - a. Select Reactor Core Accident if the source of the release is from the reactor core. Select Gap or Melt and the % Damage based on core damage estimates or known conditions in the plant.
 - b. Select Spent Fuel if the release is caused by damage to the spent fuel. User chooses between New Fuel or Old Fuel based on the type of fuel that has been damaged. Program uses a gap release scenario and defaults to a reactor Time After Shutdown based on this choice.
 - c. Select Waste Gas Decay Tank Accident if the release is caused by damage/failure of a waste gas decay tank. Program sets source to one failed Waste Gas Decay Tank inventory.
 - d. Enter Time after S/D in hours and minutes.
4. Select the **Dominant Release Path** – choose the most appropriate release path:



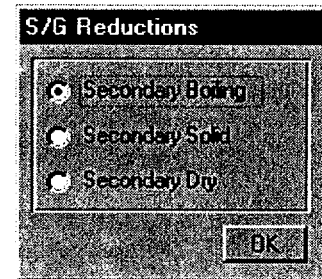
3.7 Full Assessment (continued)

5. Depending on the path chosen the user will be presented with more choices to pick the appropriate Process Reductions for the release.

Process Reduction Factors

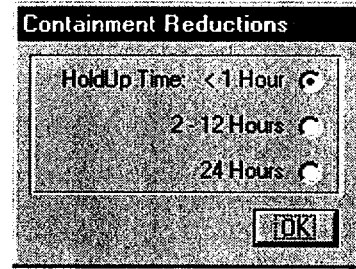
Removal Mechanism	PRF
Maximum (all systems)	0.001
S/G Tube Rupture Secondary Boiling	0.02
S/G Tube Rupture Secondary (Solid) No Boiling	0.50
S/G Tube Rupture Secondary Dry S/G	1.00
Bypass (failure into low-pressure system)	0.40
0.5 Hr Hold-Up Containment Spray	0.03
2-12 Hr Hold-Up Containment Spray	0.02
24 Hr Hold-Up Containment Spray	0.002
0.5 Hr Hold-Up No Containment Spray	0.4
2-12 Hr Hold-Up No Containment Spray	0.04
24 Hr Hold-Up No Containment Spray	0.01
Condenser Releases (no non-noble releases)	0.00
Building Holdup 0.5 Hr	0.40
Building Holdup 2-12 Hr	0.04
Building Holdup 24 Hr	0.01
Small Releases through Bldg Filters	0.01

- a. If a release through the Steam Generators is chosen. Determine the status of the secondary side of the steam generator and select the appropriate condition.
- b. If a release through containment is chosen:
- First determine if containment sprays are on or off.

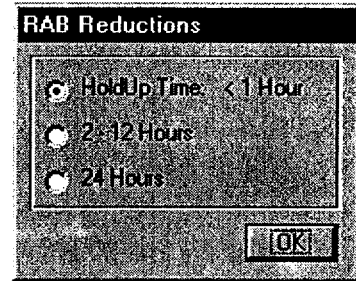


3.7 Full Assessment (continued)

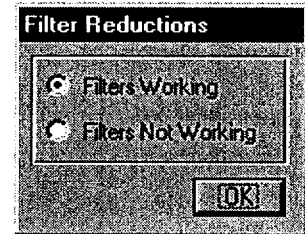
- Then determine if containment holdup time.



- c. If a release through the RAB is chosen, determine the RAB holdup time.



- d. If a release through a filtered Vent is chosen select if the filters are working or not. If the release has been ongoing for a long time or contains a large amount of liquids filters may not be working.



NOTE: If Met Tower data is unavailable, another source of meteorological data may be used such as the National Weather Service or a local TV or Radio broadcast stations and the stability class can be estimated.

6. **Input Meteorological Data** – Enter the appropriate data from plant instruments as follows:
 - a. Wind Speed (MPH) – Obtain the Lower Wind Speed from the ERFIS computer or the Control Room.
 - b. Wind Direction (From) – Obtain the Lower Wind Direction from the ERFIS computer or the Control Room.

3.7 Full Assessment (continued)

c. Stability Class (A-G) – Obtain the stability class from the ERFIS computer or the Control Room. Stability Classes:

- A 1 Extremely unstable conditions
- B 2 Moderately unstable conditions
- C 3 Slightly unstable conditions
- D 4 Neutral conditions
- E 5 Slightly stable conditions
- F 6 Moderately stable conditions
- G 7 Extremely stable conditions

d. If the stability class is not available use the following table to choose appropriated value:

Surface Wind Speed (mph)	Daytime Solar Radiation (For moderate cloud cover move one column to the right)			Nighttime Conditions		Day or Night
	Summer/ Clear Sky	Spring & Fall Clear Sky	Winter	Thin overcast (>1/2 cloud cover)	<3/8 cloud cover	Heavy Overcast or Rain
	A	A-B	B			D
0.0 to 9.0	A-B	B	C	E	F	D
9.0 to 13.5	B	B-C	C	D	E	D
> 13.5	C	C-D	D	D	D	D

NOTE: The conditions Good or Adverse in the following step are in relation to the weather. Adverse is heavy rain or any other condition which would hinder the flow of traffic.

7. **Set Evacuation Conditions** – Click on the “Conditions” button to select the appropriate conditions for the program to calculate the Maximum Evacuation Time Estimate (ETE). Once the user sets the evacuation conditions the program will place the Max ETE value in the “Release Duration” and “Max ETE” text boxes.

3.7 Full Assessment (continued)

8. If the **Release Duration** is known change the displayed times to the known release duration. If a good estimate of the release duration can not be determined use the default value entered by the program.

NOTE: User may switch back and forth between assessment methods as more information becomes available or conditions change. With the exception of the Hours After Shutdown, which updates each time user returns to main form, the data on the Full Assessment form will not change unless user changes it.

9. Choose the **Assessment Method** – Choose the appropriate assessment method based on available inputs. Assessment methods:
 - a. Monitored Release – Choose this method for a release through a plant vent or through the Main Steam Relief Valves. Go to Section 3.8.
 - b. Containment Leakage/Failure – Choose this method for containment failure scenarios. Go to Section 3.9.
 - c. Field Team Analysis – Choose this method if field team survey or sample data is available. Go to Section 3.10.
 - d. Release Point Analysis – Choose this method for a sample of a release has been obtained and a release flow rate can be estimated. Go to Section 3.11.

3.8 Monitored Release

Monitored Release

<p>Monitor</p> <p><input type="radio"/> Plant Vent</p> <p><input type="radio"/> Turbine Building Stack</p> <p><input type="radio"/> WP Building Stack 5</p> <p><input type="radio"/> WP Building Stack 5a</p> <p><input checked="" type="radio"/> Main Steam Line</p>	<p>Relief Inputs</p> <p>S/G Press: <input type="text" value="600"/></p> <p>SRVs Open: <input type="text" value="0"/></p> <p>PORV Open: <input checked="" type="checkbox"/></p>	<p>PAGs Exceeded (miles)</p> <p>TEDE To: <input type="text" value="1.0"/></p> <p>CDE (thyroid) To: <input type="text" value="2.5"/></p> <p>Rel Dur (hh:mm): <input type="text" value="3:25"/></p>																																																																						
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1. Choose the appropriate monitor:
 - a. Plant Vent – this is stack #1, the monitor reading from computer point RAV3509H is used for this release point. It reads out in $\mu\text{Ci}/\text{sec}$ for this monitor.
 - b. Turbine Building Vent – this is stack #3, the monitor reading from computer point RTV3536D is used for this release point. It reads out in $\mu\text{Ci}/\text{sec}$ for this monitor.
 - c. WP Building Vent 5 – computer point RWV3546H is used for this release point. It reads out in $\mu\text{Ci}/\text{sec}$ for this monitor.
 - d. WPB Building Vent 5A – computer point RWV3547H is used for this release point. It reads out in $\mu\text{Ci}/\text{sec}$ for this monitor.
 - e. Main Steam Line – The Main Steam Line radiation monitors are used for this release point. The computer points for these monitors are RMS3591A, RMS3592A, and RMS3593A. Since these monitors read out in mR/hr a flow has to be determined to calculate the $\mu\text{Ci}/\text{sec}$ release rate. This is accomplished by entering the steam pressure and the number of relief valves that are open.

2. Input **Reading** Information – User enters the appropriate monitor reading in $\mu\text{Ci}/\text{sec}$ or mR/hr.

3.8 Monitored Release (continued)

3. After User enters data the program calculates offsite doses. The user can now perform one of the following items:
 - a. Press Print button– Prints offsite dose projections based on monitor release.
 - b. Press Back button to Change input data on the Full Assessment Form.
 - c. Press PARs button to view PAR form – Go to section 3.6.
 - d. Select a different monitor and/or change readings to recalculate doses and update PAR.

3.9 Containment Leakage/Failure

Distance (miles)	External In/Ren/h	External (Rem)	Inhalation (Rem)	Deposition (Rem)	TEDE (Rem)	CDE (thyroid) (Rem)
S.B	1.20E+03	2.69E+00	1.79E+01	8.92E+00	2.95E+01	4.14E+02
0.5	1.10E+03	2.45E+00	1.63E+01	8.13E+00	2.69E+01	3.78E+02
1.0	3.41E+02	7.64E-01	5.08E+00	2.53E+00	8.37E+00	1.18E+02
1.5	1.77E+02	3.96E-01	2.63E+00	1.31E+00	4.33E+00	6.09E+01
2.0	1.19E+02	2.53E-01	1.69E+00	8.39E-01	2.77E+00	3.89E+01
2.5	8.11E+01	1.82E-01	1.21E+00	6.02E-01	1.99E+00	2.79E+01
3.0	6.24E+01	1.40E-01	9.28E-01	4.63E-01	1.53E+00	2.15E+01
3.5	5.03E+01	1.13E-01	7.48E-01	3.73E-01	1.23E+00	1.73E+01
4.0	4.18E+01	9.36E-02	6.22E-01	3.10E-01	1.03E+00	1.44E+01

1. Select the appropriate containment release mode:
 - a. Leakage – Program defaults to 0.1% per day which is the Design Leakage rate per the FSAR. If a different percentage of leak rate has been calculated by TSC engineers enter that value in the % per day text box.
 - b. Failure to Isolate – Assumes 100% of the isotopes available for release are released in a 24 hour time period.
 - c. Catastrophic Failure – Assumes 100% of the isotopes available for release are released in a 1 hour time period.

3.9 Containment Leakage/Failure (continued)

2. After User enters data the program calculates offsite doses. The user can now have the program perform the following items:
 - a. Press Print button to prints offsite dose projections based on containment failure.
 - b. Press Back button to change input data on the Full Assessment Form.
 - c. Change containment failure mode – either by selecting different type of containment failure or % of daily leakage.
 - d. Press PARs button to view PAR form – Go to section 3.6.

3.10 Field Team Analysis

NOTE: The program calculates the plume Travel Time and Release Time to allow Dose Assessment personnel to compare previous dose assessment reports with data measured in the field.

1. Analysis Method –**Survey** – Select this method if Field Team Dose Rate Survey Data is available.

Field Team Analysis																																			
Analysis Basis <input checked="" type="radio"/> Survey <input type="radio"/> Sample		PAGs Exceeded (miles) 																																	
Downwind (miles):	9.00	Travel Time:	4:30																																
Crosswind (miles):	0.20	Release Time:	7:30																																
Level (mR/hr):	50.0	Field X/Q:	2.46E-06																																
Survey Time:	12:00	Release Duration:	3:25																																
<input type="button" value="PAR"/> <input type="button" value="Print"/> <input type="button" value="Back"/>		<table border="1"> <thead> <tr> <th>Isotope</th> <th>Concentration (uCi/cc)</th> </tr> </thead> <tbody> <tr><td>Kr-85</td><td></td></tr> <tr><td>Kr-85m</td><td></td></tr> <tr><td>Kr-87</td><td></td></tr> <tr><td>Kr-88</td><td></td></tr> <tr><td>Xe-131m</td><td></td></tr> <tr><td>Xe-133</td><td></td></tr> <tr><td>Xe-133m</td><td></td></tr> <tr><td>Xe-135</td><td></td></tr> <tr><td>Xe-135m</td><td></td></tr> <tr><td>Xe-138</td><td></td></tr> </tbody> </table>		Isotope	Concentration (uCi/cc)	Kr-85		Kr-85m		Kr-87		Kr-88		Xe-131m		Xe-133		Xe-133m		Xe-135		Xe-135m		Xe-138											
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NOTE: Field team dose and dose rate values based on rad level surveys only include the external exposure component. Values should be used for comparison purposes, not as the basis for making Protective Action Recommendations.		<table border="1"> <thead> <tr> <th>Distance (miles)</th> <th>Centerline X/Ds</th> <th>Dose Rate (mR/Hr)</th> <th>Dose (Rem)</th> </tr> </thead> <tbody> <tr><td>S.B.</td><td>2.71E-04</td><td>5.50E+03</td><td>1.88E+01</td></tr> <tr><td>0.5</td><td>2.47E-04</td><td>5.01E+03</td><td>1.72E+01</td></tr> <tr><td>1.0</td><td>7.69E-05</td><td>1.56E+03</td><td>5.34E+00</td></tr> <tr><td>1.5</td><td>3.98E-05</td><td>8.09E+02</td><td>2.76E+00</td></tr> <tr><td>2.0</td><td>2.55E-05</td><td>5.17E+02</td><td>1.77E+00</td></tr> <tr><td>2.5</td><td>1.83E-05</td><td>3.71E+02</td><td>1.27E+00</td></tr> <tr><td>3.0</td><td>1.41E-05</td><td>2.85E+02</td><td>9.76E-01</td></tr> </tbody> </table>		Distance (miles)	Centerline X/Ds	Dose Rate (mR/Hr)	Dose (Rem)	S.B.	2.71E-04	5.50E+03	1.88E+01	0.5	2.47E-04	5.01E+03	1.72E+01	1.0	7.69E-05	1.56E+03	5.34E+00	1.5	3.98E-05	8.09E+02	2.76E+00	2.0	2.55E-05	5.17E+02	1.77E+00	2.5	1.83E-05	3.71E+02	1.27E+00	3.0	1.41E-05	2.85E+02	9.76E-01
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3.10 Field Team Analysis (continued)

2. Analysis Method **Sample** – Select this method if Field Team Air Sample Data is available.

Field Team Analysis

Analysis Basis
 Survey Sample

Downwind (miles): 9.00
 Crosswind (miles): 0.20
 Level (mR/hr):
 Survey Time: 12:00

PAGs Exceeded (miles)
 TEDE To: 10.0
 CDE (thyroid) To: 10.0

Travel Time: 4:30
 Release Time: 7:30
 Field X/Q: 2.46E+06
 Release Duration: 3:25

Isotope Concentration (µCi/cc)

Isotope	Concentration (µCi/cc)
Kr-85	
Kr-85m	
Kr-87	1.00E+00
Kr-88	
Xe-131m	1.11E+02
Xe-133	
Xe-133m	2.20E+01
Xe-135	
Xe-135m	
Xe-138	

PAR Print Back

Distance (miles)	External (mR/hr)	External (Rem)	Inhalation (Rem)	Deposition (Rem)	TEDE (Rem)	CDE (Rem)
0.5	2.09E+09	2.71E+06	2.29E+05	1.86E+06	4.80E+06	1.86E+06
1.0	1.91E+09	2.47E+06	2.09E+05	1.69E+06	4.38E+06	1.69E+06
1.5	5.94E+08	7.70E+05	6.48E+04	5.27E+05	1.36E+06	5.27E+05
2.0	3.08E+08	3.99E+05	3.36E+04	2.73E+05	7.05E+05	2.73E+05
2.5	1.97E+08	2.55E+05	2.15E+04	1.75E+05	4.51E+05	1.75E+05
3.0	1.41E+08	1.83E+05	1.54E+04	1.25E+05	3.24E+05	1.25E+05
3.5	1.09E+08	1.41E+05	1.19E+04	9.63E+04	2.49E+05	9.63E+04

3. Enter Location of Field Team Sample, Reading(s) and time sample was taken. Program will not allow mR/hr readings for sample data or isotopic results for survey data.
 - a. Downwind (miles) – straight line distance from release point to sample location.
 - b. Crosswind (miles) – the distance the team was away from the centerline when the sample was taken. The program will warn user if reported sample location is wider than expected plume width. The maximum width of any plume for the most unstable stability class is 2.96 miles, 10 miles downwind.
 - c. If Analysis Method is Dose Rate Survey – Enter the Field Team Survey reading. in the box labeled “Level”.
 - d. If Analysis Method is Air Sample Results enter the µCi/cc values for each known isotope in the table at the upper right section of the form.
 - e. Survey Time – Enter the time the survey or sample was taken.

3.10 Field Team Analysis (continued)

4. After User enters data the program calculates offsite doses. The user can now have the program perform the following items:
 - a. Press Print button to prints offsite dose projections based on Field Team Survey/Sample data.
 - b. Press Back button to Change input data on the Full Assessment Form.
 - c. Press PARs button to view PAR form – Go to section 3.6.

3.11 Release Point Analysis

Release Point Analysis

Isotope	Concentration (uCi/cc)
Kr-85	
Kr-85m	
Kr-87	2.22E+02
Kr-88	
Xe-131m	
Xe-133	
Xe-133m	
Xe-135	

Vent Flow Rate (SCFM):

Release Duration (hr:mm):

PARs Exceeded (index):

TEDE To:

Distance (miles)	External (Rem)	External (Rem)	Inhalation (Rem)	Deposition (Rem)	TEDE	TEDE
S.B	7.24E+04	1.12E+02	0.00E+00	0.00E+00	1.12E+02	0.00E+00
0.5	6.60E+04	1.02E+02	0.00E+00	0.00E+00	1.02E+02	0.00E+00
1.0	2.05E+04	3.18E+01	0.00E+00	0.00E+00	3.18E+01	0.00E+00
1.5	1.06E+04	1.65E+01	0.00E+00	0.00E+00	1.65E+01	0.00E+00
2.0	6.81E+03	1.05E+01	0.00E+00	0.00E+00	1.05E+01	0.00E+00
2.5	4.88E+03	7.55E+00	0.00E+00	0.00E+00	7.55E+00	0.00E+00
3.0	3.76E+03	5.81E+00	0.00E+00	0.00E+00	5.81E+00	0.00E+00
3.5	3.03E+03	4.68E+00	0.00E+00	0.00E+00	4.68E+00	0.00E+00

1. Enter the isotopic known concentration for each isotope (if unknown leave blank).
2. Enter vent flow rate (or estimate flow rate for other releases) in SCFM.
3. After User enters data the program calculates offsite doses. The user can now have the program perform the following items:
 - a. Press Print button to print offsite dose projections based on release point data.
 - b. Press Back button to Change input data on the Full Assessment Form.
 - c. Press PARs button to view PAR form – Go to section 3.6

4.0 General

4.1 Overview

1. As a Microsoft Windows based application designed in MS Access, HNP-DAPAR uses many standard user interfaces. Instructions are not provided in basic computer operations in the Windows® environment. The user must be familiar with these to efficiently operated the program.
2. It is also assumed the user is somewhat familiar with health physics fundamentals. Emergency Response Organization training provides an overview of dose assessment methodologies.

4.2 DAPAR Program Use

The program is to be used to estimate the offsite consequences of a release or potential release of radioactive materials from the HNP during an emergency. The primary purpose of these dose projections is to arrive at a Protective Action Recommendation given by HNP management to offsite authorities. These PARs will be used by those authorities in their decision making process to take actions to protect the general public.

4.3 Limitations of DAPAR Program Use

The program should not be used to calculate the actual dose received by populations exposed to radioactive materials from HNP. Results from it may be used as part of the post accident investigations but a much more in depth analysis is needed to actually assign doses receives to members of the public.

4.4 Pre-Conditions for use DAPAR

An Emergency has been declared at the HNP. The program makes many conservative assumptions to ensure proper actions are taken offsite prior to exposing the general public to any release of radioactive materials. Use of the program to project doses based on normal plant readings would indicate offsite doses many magnitudes higher than actual offsite doses.

4.5 Definitions, Acronyms and Abbreviations

The following is a list of the Definitions, Acronyms and Abbreviations which a user of the HNP Dose Assessment and Protective Action Recommendations (DAPAR) computer program should be familiar with:

1. **Centerline (plume)** An imaginary line drawn in the middle of the plume along its downwind travel direction. The plume concentrations and deposition are assumed to be the highest along the centerline.
2. **Cloud Shine** Gamma radiation from radioactive materials in the air (plume)

4.5 Definitions, Acronyms and Abbreviations (continued)

3. **Committed Dose Equivalent (CDE)** The dose equivalent to parts of the body that will be received from an intake of radioactive material by an individual over a 50-year period of time.
4. **Committed Effective Dose Equivalent (CEDE)** The sum of the dose equivalent for 50 years following intake (inhalation or ingestion) of a radionuclide to each organ multiplied by a weighting factor
5. **Core Damage** Damage to the components which comprise the reactor core. Core damage typically refers to the failure of fuel cladding and/or fuel melting as a result of overheating.
6. **Curie (Ci)** A unit of radioactivity equal to $3.7E+10$ disintegrations per second.
7. **Delta T** As used in dose projections it is the difference in temperature from the 11 meter temperature sensor and the 59.9 meter temperature sensor on the HNP meteorological tower.
8. **Deposition** The contamination found on the surface of the ground.
9. **Dose Commitment** The dose that will be accumulated by a specific organ over a specified period following uptake.
10. **Dose Conversion Factor (DCF)** The dose equivalent per unit intake of a radionuclide (mRem/ μ Ci) or the effects of exposure to a given concentration of an isotope in a plume. R/hr per μ Ci/cc.
11. **Dose Projection** The calculation of individual radiation exposure at a given location at some time in the future. Dose projections are performed in response to an actual or anticipated release of radioactive material to the environment.
12. **Effective Dose Equivalent (EDE)** The sum of the dose equivalent from external exposure to each organ multiplied by a weighting factor. EDE is used to estimate the risk of delayed health effects.
13. **Emergency Planning Zone (EPZ)** An area around a nuclear power plant in which plans are in place for an emergency at the plant. Plans are in place to take immediate protective actions for individuals located within 10 miles of the Harris Nuclear Plant. This area is called the Plume Exposure Emergency Planning Zone. In addition, longer term plans are in place for the Ingestion Pathway Emergency Planning Zone which is within 50 miles of the plant.
14. **Evacuation Exposure Period** The period during which those being evacuated are exposed to the radioactive plume.

4.5 Definitions, Acronyms and Abbreviations (continued)

15. **Millirem (mR)** One one-thousandth of a Rem. The Rem is a unit of measure which defines the extent of biological injury that results to the body when it is exposed to radiation.
16. **Offsite** The area out side the site boundary, approximately 2500 feet from the center of Containment
17. **Pilot Operated Relief Valve (PORV)** A valve which serves to reduce pressure in the reactor coolant system or main steam system by allowing steam to escape from the pressurizer or the steam generators. The PORVs can be operated remotely by Plant Operators or automatically by high pressure.
18. **Protective Action Guidelines (PAGs)** Radiation exposure guidelines established by the Environmental Protection Agency which are used to determine the appropriate protective actions to be taken on the part of emergency workers and the general public. These actions include sheltering and evacuation.
19. **Protective Action Recommendations (PARs)** A recommendation made by HNP personnel to the offsite authorities on the appropriate protective actions to be taken on the part of the general public. The PARs are based on plant conditions or dose projections using the PAGs for guidance. These actions include sheltering and evacuation.
20. **Safety Relief Valve** A valve which serves to reduce pressure in a fluid system should the pressure become to high. Both the reactor coolant system (located on the pressurizer) and the main steam system (located on the steam generators) have safety and relief valves to protect them from being damaged by excessive pressure.
21. **Site Boundary** Defined as a circle with a radius of 2500 feet and the containment building as it's center.
22. **Station Vent** That part of the plant's ventilation system through which the containment building and auxiliary building air may be processed to the outside atmosphere. The discharge of the station vent is continuously monitored for abnormal amounts of radiation and would be isolated long before radiation levels approach federal limits
23. **Subzones** Pre-designated areas offsite in which Protective Actions such as evacuation of sheltering will be performed.
24. **Total Effective Dose Equivalent (TEDE)** A method of converting exposure to radiation to the biological effects that it will cause to the human body. It combines the external and internal ionizing radiation exposure.

5.0 References

1. HNP DAPAR Program Manual

6.0 Diagrams / Attachments

None

Revision Summary for PEP-340 Rev.8

The changes to PEP-340 are as a result of ESR 00-00372 for the Meteorological Tower. The changes are clarifications. One was to provide information that the Met Tower wind speed and wind direction are to be taken from the lower Met Tower sensors and that the Delta T points from the Met Tower are now 11 and 59.9.

Section	Changes
Page 6	Added Lower to 'Wind Speed (MPH) – Obtain the Lower Wind Speed from the ERFIS computer or the Control Room.' Added Lower to 'Wind Direction (From) – Obtain the Lower Wind Direction from the ERFIS computer or the Control Room.'
Page 12	Added Lower to 'Wind Speed (MPH) – Obtain the Lower Wind Speed from the ERFIS computer or the Control Room.' Added Lower to 'Wind Direction (From) – Obtain the Lower Wind Direction from the ERFIS computer or the Control Room.'
Page 21	Changed 10 to 11 and 60 to 59.5 in ' <u>Delta T</u> As used in dose projections it is the difference in temperature from the 10 meter temperature sensor and the 60 meter temperature sensor on the HNP meteorological tower.'