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 PLUNKETT, T.F. Florida Power & Light Co. *Rev 2/10/94 JAD*  
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SUBJECT: Forwards Rev 26 to "Turkey Point Radiological Emergency Plan" & Rev 26 to EPIPs 20101, 20111, 20126, 20129, 20130 & 20133.

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L-94-06  
10 CFR 50.54(q)  
10 CFR 50, Appendix E

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Re: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Emergency Plan Implementing Procedures and  
Radiological Emergency Plan - Revision 26

Florida Power and Light Company (FPL) has issued Revision 26 to the Turkey Point Radiological Emergency Plan and has determined that the revision does not decrease the effectiveness of the plan. Attachment 1 provides a summary of the Turkey Point Radiological Emergency Plan Revision 26 changes. Pursuant to 10 CFR 50.54 (q), Attachment 2 provides one copy of the plan.

In accordance with the requirements of 10 CFR 50, Appendix E, Attachment 3 provides one copy of the following revised Emergency Plan Implementing Procedures (EPIPs):

<u>Number</u>	<u>Title</u>	<u>Implementation Date</u>
20101	Duties of Emergency Coordinator	01/01/94
20111	Re-Entry	01/01/94
20126	Offsite Dose Calculations	01/01/94
20129	Emergency Response Team - Offsite	01/01/94
20130	Emergency Radiation Team Response - Onsite	01/01/94
20133	Operations Support Center (OSC) Activation and Operation	01/01/94

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EPIPs 20101, 20111, 20129, 20130, and 20133 were revised to reflect changes to 10 CFR Part 20 requirements. EPIP 20126 was revised to reflect the changes to 10 CFR Part 20 requirements and to replace the reference to Homestead Air Force Base with National Weather Service (NWS).

Should there be any questions, please contact us.

Very truly yours,



T. F. Plunkett  
Vice President  
Turkey Point Plant

TFP/OIH

Attachments

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC (2  
copies)  
T. P. Johnson, Senior Resident Inspector, USNRC, Turkey Point  
Plant (no enclosure)



Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Emergency Plan Implementing Procedures and  
Radiological Emergency Plan - Revision 26

ATTACHMENT 1

SUMMARY OF TURKEY POINT RADIOLOGICAL EMERGENCY PLAN -  
REVISION 26 CHANGES

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

Global Changes Throughout Emergency Plan

Changed: he to he/she

him to him/her

Chairman to Chairperson

Changed: The following plant position titles to reflect the current organization:

"Vice President, Turkey Point - Nuclear" to  
"Vice President, Turkey Point Plant"

"Plant General Manager - Nuclear" to "Plant General Manager"

"Operations Manager - Nuclear" to "Operations Manager"

"Site Quality Manager" to "Quality Manager"

"Site Services Manager" to "Services Manager"

"Emergency Preparedness Supervisor" to "Emergency Preparedness Coordinator"

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
1-1	1.2	Definition of Annual - change "January through..." to "January 1 through..." to clarify definition.
1-2	1.2	Definition of Duty Call Supervisor - change "He is responsible..." to "The Duty Call Supervisor is responsible". for clarification.
1-6	1.4	Concept of Operations - add location of EPIP's listed in the E-Plan.
1-7	Figure 1-1	Revised to reflect overlay of compass sectors with geographic boundaries used in developing and implementing protective actions.
1-8	1.4	Add "and" between Emergency Coordinator and Emergency Control Officer to clarify the statement.
1-9	1.4	Change "...and Corporate FPL..." to "...and activation of Corporate FPL..." to clarify wording.
1-9	1.5	Change "Appendix A, State of Florida Plan, contains a signed agreement by FPL, state, and county officials." to "Appendix A, references the State of Florida Radiological Emergency Management Plan, and the locations where it is maintained for Turkey Point Emergency Response."
1-10	Table 1-1	<p><u>Immediate Response</u> - Actions:</p> <p>a - delete "EC directs corrective action to control or mitigate the condition." This action is a repeat of the first action by the Nuclear Plant Supervisor (NPS).</p> <p>b - change the method of notification to the ECO to allow the Duty Call Supervisor and Nuclear Division Duty Officer to contact the ECO. This flexibility will allow the ECO to be notified more expeditiously, and will allow the NPS/EC to direct more attention to accident mitigation. The Control Room will notify the DCS who will notify the NDDO/ECO. This action will free Control Room personnel to continue with State and NRC notifications.</p>
1-11	Table 1-1	<p><u>Expanded Response</u> - Actions:</p> <p>a - Item 1, changed "The EC can now devote himself..." to "The EC can now devote his/her attention..." This wording more appropriately describes the action.</p> <p>b - Item 3, changed "...then closes out with verbal summary..." to "...then closes out with a summary..." to allow flexibility as agreed to between FPL and Regulatory officials.</p>

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
1-12	Figure 1-2	<u>Initial Notification</u> - changed ECO notification to reflect alternate methodology "...via the DCS or NDDO..." as previously described.
2-4	2.1.2	<u>Division of Florida Highway Patrol, Department of Highway Safety, and Motor Vehicles</u> - changed Appendix A to Annex B to reflect current revision of the State plan.
2-4	2.1.2	<u>State of Florida Response Organization - Other State Agencies</u> - Deleted reference to specific agencies, and added "The DEM can request support, as necessary, from other State agencies as defined in Annex B of the State Plan." This change will prevent discrepancies between the State plan and Turkey Point's plan, and will not reduce the available resources provided by the State.
2-4	2.1.3	<u>County Response Organization</u> - Third paragraph, changed Section XII to Annex K to reflect change in State plan.
2-7	2.1.3	<u>County Response Organizations</u> - Changed "Director, Division of Public Safety, Planning and Assistance" to "Director, Division of Emergency Management" to reflect current State titles.
2-11	Figure 2-3	Turkey Point Plant Normal Operating Organization - updated to reflect organizational changes.
2-13	2.2.1	<u>Normal Operating Organization</u> - Technical Department Manager - (Pg 2-15) deleted reference to Document Control Section, which now reports to the Services Manager.
2-17	Figure 2-4	Modified organization to reflect hierarchy of positions.
2-20/21	Table 2-2a	Deleted a note which no longer applies and corrected a typographical error.
3-1,2,3	3.1,2,3,4	Added clarification words to action steps regarding periodic plant status updates. The same action is applicable under all emergency classifications, and reads: "Provide periodic plant status updates in accordance with plant procedures, typically every sixty minutes, upon significant change in plant conditions, or as agreed to with State County, and Federal Agencies."

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
3-4	3.5	<u>Emergency Action Levels</u> - added the following words to the first paragraph: "Minor changes to parameter values and wording may be made in the emergency classification table throughout the year, and incorporated in the annual revision to the Emergency Plan." This wording is used by several plants, and allows changes of a minor nature that do not warrant an immediate revision of the Emergency Plan. This change has been reviewed with Mr. J. Kreh, NRC Region II.
3-14	Table 3-1	EAL 10. High Radiation Levels in Plant - Alert classification - Item B, changed MPC to DAC in accordance with 10 CFR 20 revisions.
3-25	Table 3-2	Waste Disposal System Liquid Effluent Radiation Monitor - changed low end of range from 0 to 10 cpm. Typographical error; no change in instrumentation effectiveness.
3-30	Table 3-4	Containment Temperature - revised instrumentation to reflect temperature indicators used. They have the same range as the previously referenced recorder (R-*-1413).
4-1	4.0	Changed reference to Initial Notification Flowpath from Figure 4-1 to Figure 1-2. Therefore, Figure 4-1 is deleted because it is identical to Figure 1-2.
4-2	4.1.1	Added Duty Call Supervisor to ECO notification methodology consistent with earlier changes.
4-3	Figure 4-1	Deleted; identical to Figure 1-2.
4-4	Table 4-1	Added specific names for onsite and corporate emergency response facilities. Clarified wording and punctuation in State and County facility titles.
4-7	4.3	Added Monroe County Sheriff's Office to county locations manned on 24 hour basis for notification via the State Hot Ring Down System.
4-8	4.4.1	<u>US Nuclear Regulatory Commission - Communications</u> - changed "activated" to "operational" to clearly establish when communications will be transferred to a facility (TSC or EOF).
4-10	4.6	<u>Communications Equipment</u> - revised description of the Company Radio System being less specific about actual radio bands (UHF/VHF), and adding reference to mobile radios in vehicles. This change will allow greater flexibility to enhance radio communications without needlessly changing the E-Plan.
5-1	5.1.1	<u>Plant Release Pathways</u> - added wording to specify which areas supply effluents to the plant vent.

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
5-2	5.1.2	Changed "Transportation Capability..." to "offsite analysis capability..." to accurately describe the required support.
5-3	5.1.3	<u>Meteorological Systems</u> - changed National Oceanic and Atmospheric Administration (NOAA) Headquarters in Coral Gables, to National Weather Service (News) at Miami International Airport. This change reflects the current practice as the most accurate method, if onsite systems are unavailable. NWS has Doppler Radar Systems, which can accurately detect current weather conditions in the Turkey Point area.
5-4	5.1.5	<u>Exposure and Dose Rate Determination</u> - added EOF Health Physics as an available service for preparing dose estimates, if the EOF is operational.
5-10	5.1.6	<u>Offsite Monitoring - Field Monitoring - State</u>  Revised references to State plan to reflect current changes.
5-12	5.2.1	<u>Protective Actions - Decontamination</u> - Added reference to Mercy Hospital for treatment of contaminated injured personnel.
5-13/5-17	5.2.1\5.2.3	<u>Protective Actions - Offsite/Offsite Protective Measures</u> - revised reference to State plan to reflect current changes.
5-18	5.2.4	<u>Public Warning and Information</u> - added words "...to alert the public.", to clarify the purpose for using TV and radio stations.
5-21	5.3	<u>Radiological Exposure Control</u> - revised the section to incorporate Company Policy on Emergency Worker Exposure Guidelines based on 10 CFR 20 and EPA-400 Guidelines. This change is partial implementation of the EPA-400 revision. The complete implementation will occur on April 1, 1994, as agreed to with the State of Florida.
5-23	5.3.3	<u>Contamination Control and Decontamination Procedures</u> - deleted reference to State plan with regard to handling contaminated injured individuals at Baptist and Mercy Hospitals. The State plan does not provide specific guidance in this area. The hospitals maintain their own programs and are evaluated by FEMA.

SUMMARY OF REVISION 26 CHANGES  
TO THE TURKEY POINT NUCLEAR PLANT RADIOLOGICAL EMERGENCY PLAN

<u>Page</u>	<u>Section</u>	<u>Description of Change</u>
6-7	Table 6-1	Revised press release to accurately separate options regarding no radiation release and radiation release. Deleted "However, this amount is not significantly above the normal background radiation detected in the atmosphere (and does not pose an immediate health or safety hazard to plant employees or the public.)" This statement is not appropriate for an initial press release. Details regarding the release may be added if available.
6-8	Table 6-1	Initial FPL Statement - General Emergency - delete any reference to offsite protective actions. This announcement is the responsibility of the State and County, and would only result in conflict if changed after discussion with FPL officials.
7-2	7.1.3	<u>Planning</u> a. deleted responsibility of Nuclear Emergency Preparedness Manager for requesting personnel for scenario development. This responsibility is already performed by the Emergency Preparedness Coordinator.  b. Item 7 - under Services Manager responsibilities changed the distribution of the scenario and critique from the "Manager, Nuclear Emergency Preparedness" to "Plant and Corporate Management". This distribution provides information to appropriate personnel.
7-3	7.1.4.1	<u>Exercises</u> - change wording regarding elements that will be tested every five years to specifically delineate applicable item.

Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Emergency Plan Implementing Procedures and  
Radiological Emergency Plan - Revision 26

ATTACHMENT 2

TURKEY POINT RADIOLOGICAL EMERGENCY PLAN - REVISION 26



**TURKEY POINT PLANT  
RADIOLOGICAL  
EMERGENCY PLAN  
REVISION 25**

*Superseded pages for Rev. 26  
Emas Plan  
50-250/251 1/25/94  
9402020323*

Reviewed by Plant Nuclear Safety Committee Meeting #93-122 Date: 05/20/93

Approved by: *H. Goldberg*  
President, Nuclear Division

Date: 6/25/93



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## 1. GENERAL INFORMATION

### 1.1 Purpose

This Emergency Plan contains Florida Power & Light Company's plans for coping with radiological emergencies at the Turkey Point Nuclear Power Plant, (Units 3 and 4) located in Dade County, Florida.

The plan has been designed to preclude or mitigate the adverse health and safety effects of an emergency. Four general objectives have been considered in the development of this plan:

- 1) Timely and accurate assessment of off-normal or emergency conditions and proper notification of responsible authorities.
- 2) Effective coordination of emergency actions among all organizations having a response role.
- 3) Continued assessment of actual or potential consequences both onsite and offsite.
- 4) Continuing maintenance of an adequate state of emergency preparedness.

### 1.2 Definitions

Annual - Once per calendar year (January through December 31).

Assessment Actions - Those actions taken during or after an accident to obtain and process information necessary to make decisions to implement specific emergency measures.

Company - Florida Power & Light Company (FPL)

Corporate Emergency Organization - A group of designated individuals from within the normal (non-nuclear plant site) Company organization who may cease normal activities and assume responsibility for augmenting FPL corrective, assessment and protective actions in the event of a radiological emergency at the Plant.



Corrective Actions - Those measures taken to mitigate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release, e.g., shutting down equipment, firefighting, repair, and damage control.

Duty Call Supervisor - A designated supervisor assigned from the nuclear plant staff to provide 24-hour response to any radiological emergency upon notification by the Nuclear Plant Supervisor. He is responsible for notifying plant management in the event of an emergency.

Emergency - Any off-normal event or condition which is classified into one of the four event categories in Table 3-1, Emergency Classification Table, of this Plan. A radiological emergency at the Plant is classified in accordance with EP 20101 as an Unusual Event, an Alert, a Site Area Emergency, or a General Emergency.

Emergency Action Levels (EALs) - Radiological dose rates, specific contamination levels of airborne, waterborne, or surface-deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that may be used as thresholds for initiating specific emergency measures such as designating a particular class of emergency, or initiating a particular protective action.

Emergency Control Officer (ECO) - A designated Company corporate officer or senior manager who will have the authority during a radiological emergency to make policy and expend funds for emergency response activities.

Emergency Coordinator (EC) - The title assumed by the Nuclear Plant Supervisor or member of the plant management staff, in the event of a radiological emergency at the Plant. The EC is responsible for notifying offsite authorities, both inside and outside the Company, and has full authority and responsibility for onsite emergency response actions.

Emergency Information Manager (EIM) - A designated Company corporate officer or Company manager who will serve as the principal public spokesman for the Company during a radiological emergency.

Emergency News Center (ENC) - A designated facility for use by the EIM in communicating with the news media.

Emergency Operations Centers (EOCs) - Designated offsite facilities from which the Dade County, Monroe County and State of Florida Emergency Response Organizations will direct necessary assessment and protective actions for offsite areas.

Emergency Operations Facility (EOF) - A designated location from which FPL emergency activities will be coordinated.

Emergency Operating Procedures (EOPs) - Specific procedures that provide instructions to guide plant operations during potential or actual emergency situations.

Emergency Plan Implementing Procedures (EPIPs) - A set of emergency response procedures initiated and followed by the FPL Emergency Response Organization to activate the appropriate sections of the Emergency Plan, assess and classify the emergency, notify the appropriate authorities, and provide continuing response capability (See Appendix C).

Emergency Planning Zone (EPZ) - That area, for which emergency planning consideration of the plume exposure and ingestion pathways has been given, in order to assure that prompt and effective actions can be taken to protect the public in the event of a radiological emergency at the Plant.

Emergency Response Organization - That portion of the FPL organization assigned responsibilities upon initiation of the Radiological Emergency Plan for the Turkey Point Plant.

Emergency Response Directors - The Directors of Dade County Office of Emergency Management and Monroe County Office of Civil Defense.

Emergency Security Manager (ESM) - A designated Company manager or supervisor who will have responsibility during a radiological emergency for security aspects of the emergency response.

Emergency Technical Manager (ETM) - A designated Company manager who will be responsible, during a radiological emergency, for providing engineering technical support for emergency response actions.

Governmental Affairs Manager (GAM) - A designated Company officer or senior manager who has the responsibility for liaison between the Emergency Control Officer and political officials of the local, State and Federal Governments during radiological emergency.

Ingestion Pathway Emergency Planning Zone - That area, approximately 50 miles in radius from the center of the Plant, for which detailed plans are made to protect people from ingestion of food-stuffs and water contaminated by radioactive materials released from the Plant.



National Oceanic and Atmospheric Administration (NOAA) - Government agency responsible for the forecasting of weather conditions. The National Weather Service (NWS) is a branch under NOAA that provides weather information and warning of severe weather situations such as hurricanes and tornados.

Nuclear Division Duty Officer (NDDO) - A designated member of the FPL Nuclear Division Management with responsibility for responding to radiological emergencies on a 24-hour per day basis. The NDDO may serve as an interim Emergency Control Officer until the primary or alternates are reached.

Nuclear Division Management Center - that area of the Juno Beach Office that will be manned as deemed necessary by the ECO for assembly of Corporate emergency personnel prior to activation of the Emergency Operations Facility (EOF). The Nuclear Division Management Center is located in the "D" building, 4th floor, executive officer area.

Owner Controlled Area - That portion of FPL property surrounding and including the Turkey Point Plant which is subject to limited access and control as deemed appropriate by FPL.

Operations Support Center (OSC) - An onsite Emergency Response Facility area where FPL operations, maintenance, health physics, and chemistry support personnel can report in an emergency and await assignment.

Offsite - All property outside the Protected Area.

Onsite - The area within the Protected Area.

Plant - The Turkey Point Nuclear Power Plant, Units 3 and 4.

Plume Exposure Pathway Emergency Planning Zone - That area, approximately 10 miles in radius from the center of the Plant, for which detailed plans are made to protect people from exposure to a plume containing radioactive materials.

Protected Area - The area (within the Owner Controlled Area) occupied by the two nuclear units and their associated equipment enclosed within the security perimeter fence.

Protective Actions - Those measures taken for the purpose of preventing or minimizing radiological exposure to persons during an emergency.

Quarterly - Once per quarter year; (March 31, June 30, September 30 and December 31).

Radiation Controlled Area (RCA) - The area (within the Protected Area) wherein personnel access is restricted for the purpose of monitoring and controlling exposure to radiation.

Recovery Actions - Those actions taken to restore the plant as nearly as possible to its condition before the emergency.

Recovery Manager (RM) - A designated Company senior manager who will have responsibility during a radiological emergency for managing the Emergency Response Organization in the EOF.

REAC/TS - The Radiological Emergency Assistance Center/ Training Site is operated by the Oak Ridge Associated Universities for the Department of Energy. REAC/TS serves as a backup medical facility for the Turkey Point Plant.

Site - The Turkey Point Power Plant Protected Area.

State - The State of Florida.

State Plan - The State of Florida's Radiological Emergency Management Plan for Nuclear Power Plants

System Operations Power Coordinator - An FPL System Operations position which is staffed 24 hours per day providing uninterrupted coordination of electrical power distribution. Communication is maintained by the System Operations Power Coordinator with all FPL plants, service centers, and the General Office.

Technical Support Center (TSC) - A designated onsite facility that serves as a work area for use by technical and management personnel in order to provide technical support to Control Room personnel

TSC Supervisor - The person assigned to supervise the personnel and direct the technical support activities in the TSC.

### 1.3 Scope and Applicability

The Emergency Plan describes Florida Power & Light Company's plans for responding to emergencies that may develop at the Turkey Point Plant. The plan has been prepared to meet the requirements of 10 CFR 50.47(b), 10 CFR 50.72, and 10 CFR 50 Appendix E. The purpose of this plan is to define and assign authority and responsibility in order to protect the health and safety of the public and plant personnel. This plan applies to all plant emergencies which have resulted in, or which increase the risk of the accidental release of radioactive materials to the environment.

Plans have been developed based upon knowledge of the potential consequences, timing, and release characteristics of a spectrum of events. Emergency Planning Zones have been defined. Figure 1-1 illustrates the Plume Exposure Pathway Emergency Planning Zone for the Turkey Point Plant. A key component of this plan is coordination with federal, state, and county authorities who contribute to the overall response effort. This plan outlines Company responsibilities within the framework of the overall emergency response organization, and provides a conceptual basis for the development of the detailed procedures necessary to implement the plan.

#### 1.4 Concept of Operations

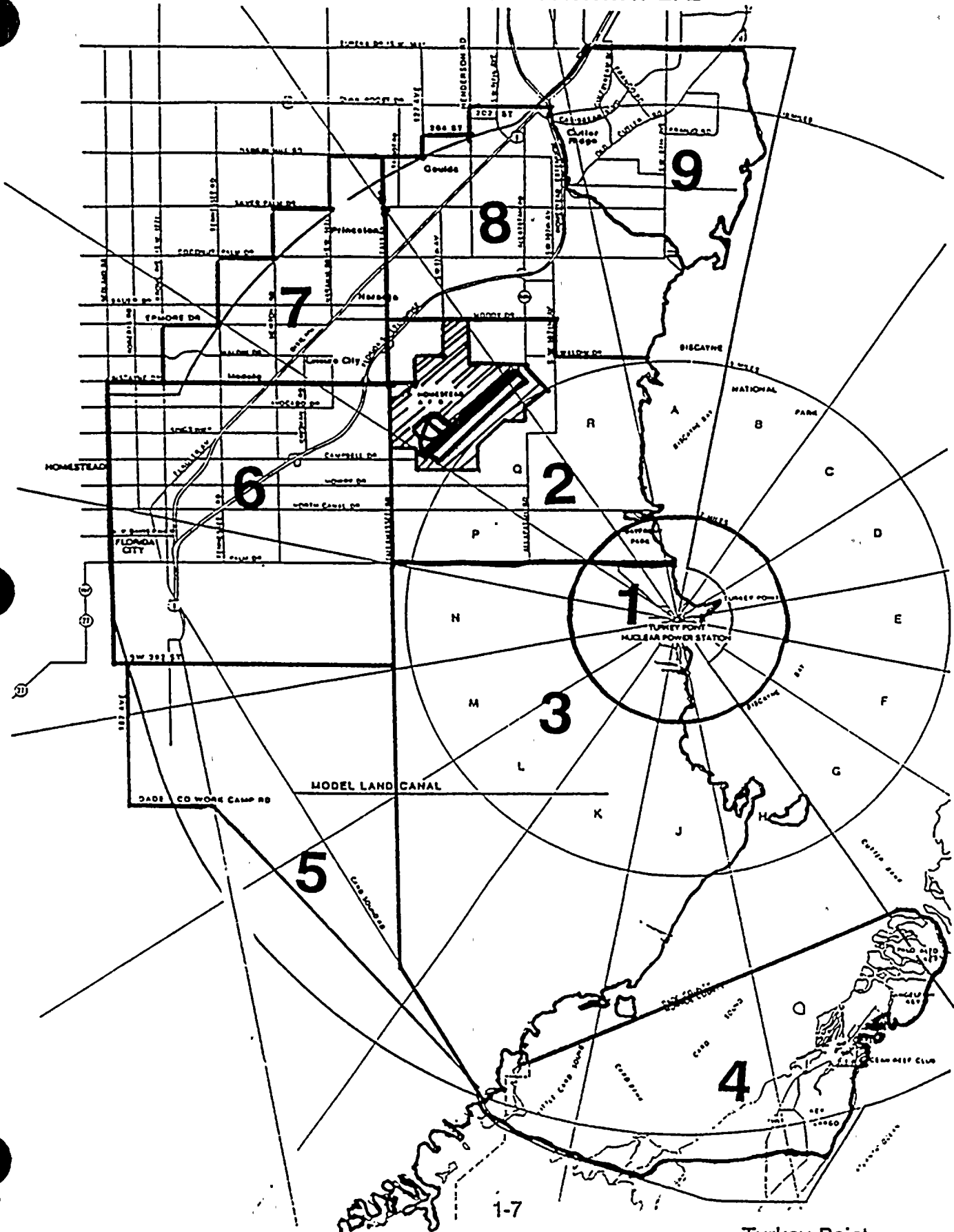
The Emergency Plan defines emergency conditions and delineates the responsibilities and duties of the FPL Emergency Response Organization (see Figure 2-1). The Emergency Plan is concerned with the following basic activities, which are discussed in the Plan in detail:

- 1) Organization and resources adequate to detect the presence of an emergency condition, assess the condition, and respond in an appropriate manner (Chapter 2).
- 2) Assignment of an off-normal event to its proper classification (Chapter 3).
- 3) Notification of offsite authorities, as required, and continuing communications (Chapter 4).
- 4) Gathering and interpreting data to determine appropriate actions (Chapter 5).
- 5) Assisting governmental agencies in the development of information for the public both in terms of preparatory education and emergency response information (Chapter 6).
- 6) Maintaining the FPL Emergency Preparedness Program in a state of readiness (Chapter 7).

Associated with this Emergency Plan are implementing procedures which provide a detailed source of pertinent information and data required by the response organization during an emergency.

FIGURE 1-1

PLUME EXPOSURE PATHWAY EPZ



Off-normal events have been separated into the following four classifications of emergencies:

- 1) Unusual Event
- 2) Alert
- 3) Site Area Emergency
- 4) General Emergency

These four classes represent emergency conditions which trigger activation of emergency procedures. When an emergency is declared in connection with one of these four classes, many individuals assume new title with special responsibilities.

Each emergency class is characterized by unusual or off-normal plant events detected by Control Room instrumentation and/or routine or directed surveillance activities.

The Company's response to an emergency condition consists of an immediate response and an expanded response reflecting the need for a dynamic emergency response organization which can readily adapt to an emergency condition as it develops. The immediate response phase encompasses the period of time and sequence of actions associated with the initial detection of an off-normal event, classification as an emergency, and activation of the expanded response capability, if required. During this phase, the Nuclear Plant Supervisor assumes responsibility as the Emergency Coordinator and initiates the following general activities:

- 1) Diagnosis of the off-normal event.
- 2) Corrective action.
- 3) Classification of the off-normal event.
- 4) Notification of appropriate offsite authorities.
- 5) Notification of appropriate FPL authorities.

During the expanded response phase, the Emergency Coordinator (for onsite response) Emergency Control Officer (for Corporate FPL and offsite response) will assess the situation and expand the emergency response as necessary. All available company resources (site and corporate) can be mobilized as needed during this period. State, county, and federal response organizations can become fully operational, as required. Continuing corrective, assessment, and protective actions are underway, as required.

Table 1-1 summarizes the sequence of actions taken during the phased response. Figure 1-2 delineates the initial notification flow and Figure 2-2 shows the same for the State and county organizations.

As discussed throughout this plan, FPL maintains adequate facilities and equipment for detecting, assessing, and responding to emergencies. Redundant means of communications among key response participants are maintained. FPL also maintains agreements that will provide for emergency medical, rescue, or fire support onsite, if needed. The training program is designed to maintain the proficiency of the Emergency Response Organization.

The FPL individual in charge of onsite Emergency response during the immediate and expanded response phases is the Emergency Coordinator. The senior company official, with responsibility for policy and authority to expend funds and Corporate FPL and offsite expanded response phases, is the Emergency Control Officer. The individual responsible for Emergency Operations Facility operation during the expanded response phase is the Recovery Manager.

In Dade County, the individual responsible during emergencies is the County Manager. In Monroe County, the Chairman, County Board of Commissioners, provides direction and control during emergencies.

As indicated in Annex B of the State Plan, "the Governor is ultimately responsible for protecting the population of the State from the dangers created by disasters which are beyond the capabilities of local governments or which are multi-jurisdictional in nature. He will provide that protection through the assignment of appropriate state resources and agencies. The Governor has appointed the Director, Division of Emergency Management, as his Authorized Representative (GAR) to act in his behalf as necessary during a radiological emergency." During emergencies, all state agencies report to these persons.

#### 1.5 Supporting Plans and Agreements

Supporting plans and agreements are included in the Appendices of this plan. Appendix A, State of Florida Plan, contains a signed agreement by FPL, state and county officials. Additional material utilized in the preparation of the Turkey Point Plan are:

- a) NUREG 0654, Rev. 1
- b) NUREG 0578
- c) NUREG 0737
- d) 10 CFR 20
- e) 10 CFR 50
- f) EPA 520/1 - 75/001
- g) Reg. Guide 1.97



## TABLE 1-1

### **TYPICAL SEQUENCE OF ACTIONS**

#### Detection of Off-Normal Conditions

- Actions:
- o Individual identifies off-normal condition.
  - o Individual immediately notifies Nuclear Plant Supervisor (NPS).

#### Immediate Response

- Actions:
- o NPS diagnose condition and directs initial corrective action to control or mitigate the condition.
  - o NPS classifies the condition in accordance with plant procedures. If the condition is classified as an emergency, the NPS through the Emergency Plan becomes the Emergency Coordinator (EC).
  - o EC notifies Duty Call Supervisor.
  - o EC directs corrective action to control or mitigate the condition.
  - o The EC orders mobilization of the Technical Support Center and the Operations Support Center (as required for Alert classification or higher classification).
  - o EC initiates necessary protective actions for onsite personnel.
  - o The EC mobilizes onsite emergency response teams as necessary to assess and control the emergency.
  - o EC notifies state and county in accordance with plant procedures.
  - o EC notifies NRC via ENS communications link.
  - o EC notifies the Emergency Control Officer. If the ECO or his alternate cannot be reached, the Nuclear Division Duty Officer (NDDO) is notified.
  - o Duty Call Supervisor notifies plant management.





TABLE 1-1

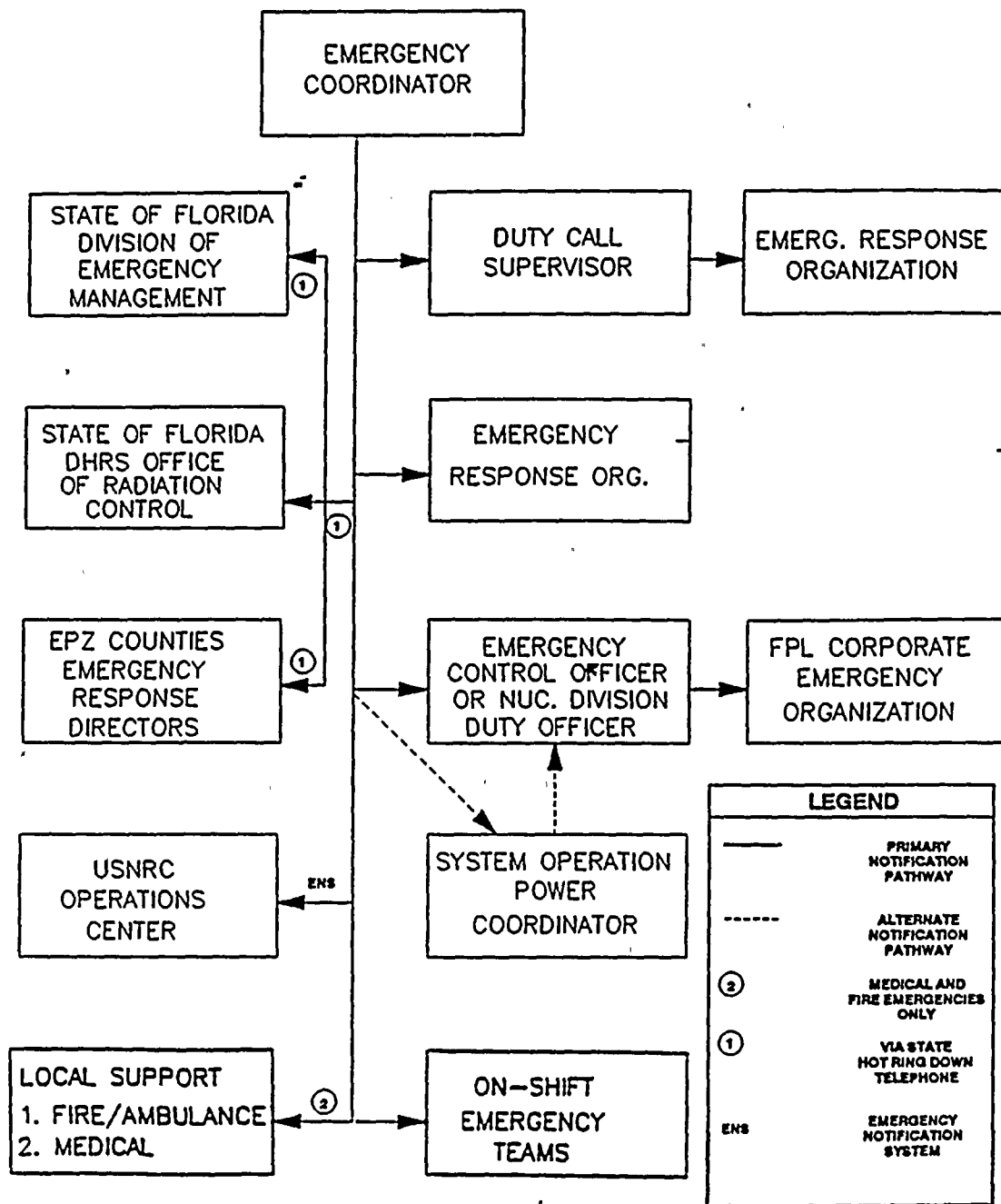
**TYPICAL SEQUENCE OF ACTIONS**

Expanded Response (Alert Class and Higher)

- Actions:
- o ECO and RM proceed to Nuclear Division Management Center or the Emergency Operations Facility, as appropriate. RM notifies EC when EOF is operational and assumes responsibility for protective actions and for communications with offsite organizations. The EC can now devote himself to control of the power plant.
  - o RM (or designated response staff) receives and assesses periodic plant status, radiological data, and meteorological data, and continues communications and coordination with the state and county authorities.
  - o RM continues assessment of conditions and control of FPL response until Plant conditions stabilize then closes out with verbal summary to offsite authorities or prepares for further long-term activities.
  - o EIM proceeds to the Emergency Operations Facility as appropriate and establishes communications with the ECO and Emergency News Center.



**FIGURE 1-2**  
**INITIAL NOTIFICATION**



\*

## 2. ORGANIZATION, FACILITIES, AND SUPPORT SERVICES

### 2.1 Elements of the Emergency Response Organization

This section defines the primary components of the overall Emergency Response Organization and the relationship of each component to the total effort.

#### 2.1.1 Florida Power & Light Company

Florida Power & Light Company (FPL) is the licensed operator of Turkey Point Units 3 and 4. As the licensed operator, FPL has developed this Emergency Plan (and associated procedures) to specify actions and provide a framework for emergency response. FPL's primary responsibilities include the following:

- 1) Diagnosis and corrective action.
- 2) Emergency classification.
- 3) Notification of appropriate governmental response organizations and continuing communication.
- 4) Initiation of protective actions for employees and others onsite.
- 5) Recommendation of protective action for the public.
- 6) Mobilization of the Florida Power & Light Company Emergency Response Organization.
- 7) Continuing data collection, dose projection, and assessment actions.
- 8) Owner Controlled Area Recovery and re-entry.

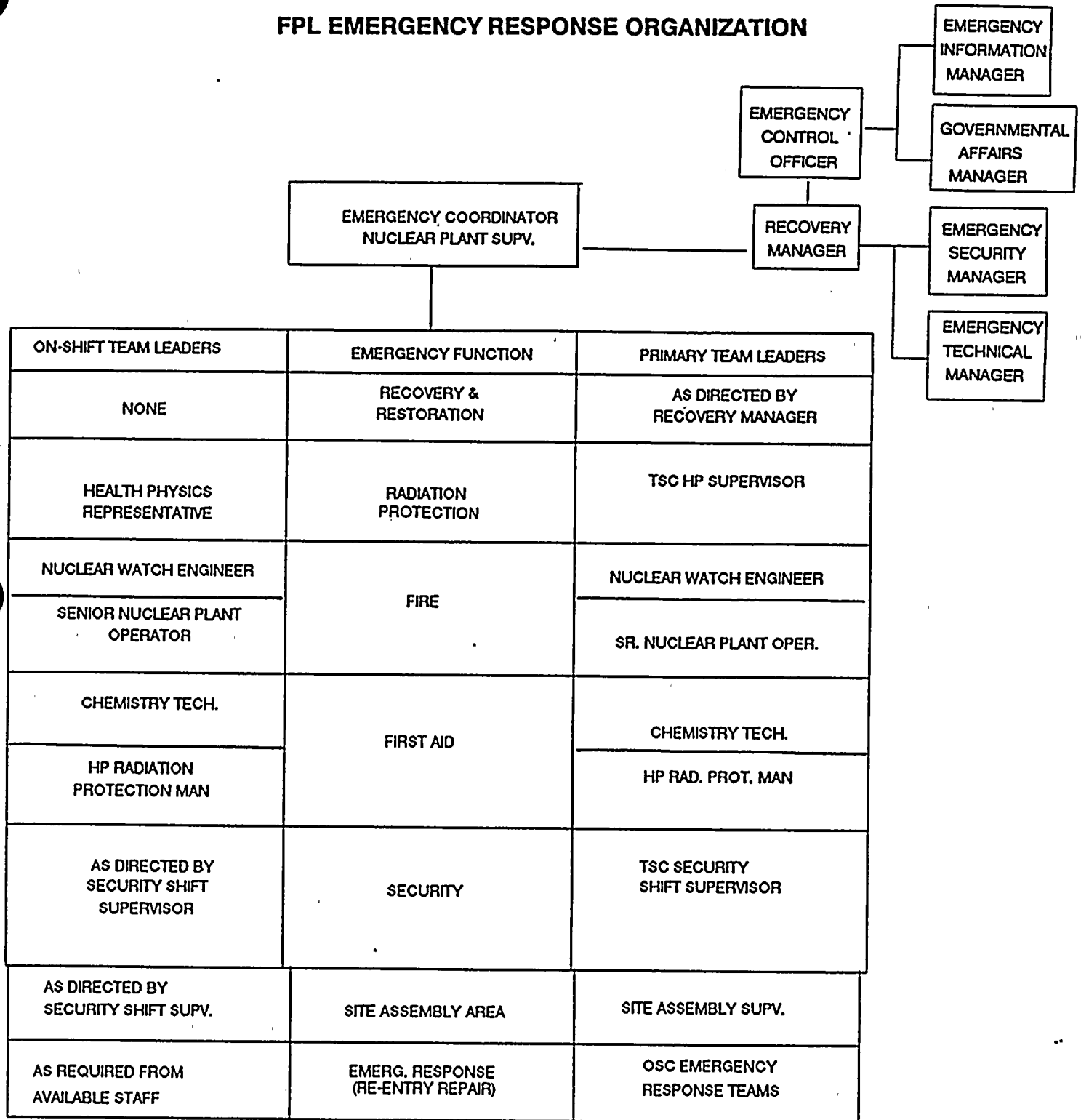
The Florida Power & Light Company Emergency Response Organization is described in detail in Section 2.2 and illustrated in Figure 2-1.

#### 2.1.2 State of Florida Response Organization

Figure 2-2a illustrates the State of Florida's Emergency Response Organization before an Executive Order by the Governor. Figure 2-2b illustrates the State of Florida's Emergency Response Organization after Executive Order by the Governor.

**FIGURE 2-1**

**FPL EMERGENCY RESPONSE ORGANIZATION**





## State of Florida Division of Emergency Management

The Division of Emergency Management (DEM) is the state agency authorized to receive initial notification from Florida Power & Light Company and is responsible for mobilizing the State and local emergency response agencies. Specific discussion on transportation of state emergency response personnel to the vicinity of the plant is discussed in Annex H of the State Plan. This emergency response is conducted in accordance with the Florida Radiological Emergency Management Plan for Nuclear Power Plants, prepared by the DEM in coordination with other emergency response agencies. The DEM's responsibilities include:

- 1) Overall responsibility for coordinating the development and implementation of state and county emergency response plans.
- 2) Command and control of State emergency response resources.
- 3) Notification of State and county response agencies.
- 4) Coordination among State, federal (i.e., FEMA, EPA, DOE) and local agencies.

## State of Florida Department of Health and Rehabilitative Services

The Department of Health and Rehabilitative Services (DHRS) is the state agency authorized to provide technical support and expertise in Public Health matters.

The DHRS defined responsibilities include:

- 1) Emergency medical services, public health, and sanitation.
- 2) Economic and social services.

Through the Office of Radiation Control:

- 3) Radiological monitoring offsite.
- 4) Offsite radiological exposure control and protective response recommendations for offsite areas.





## Division of Florida Highway Patrol, Department of Highway Safety, and Motor Vehicles

The Florida Highway Patrol, through the coordination of the Department of Law Enforcement, provides the following services.

- 1) Traffic control.
- 2) Communications (support).
- 3) Law enforcement coordination.
- 4) Transportation of radiological emergency teams.
- 5) Within their authority, evaluate and exclude individuals from designated public areas.

These services will be provided in accordance with the State Plan (Appendix A).

### Other State Agencies

As defined in the State Plan, the DEM can request support as necessary from the following state agencies:

- 1) Department of Transportation, Division of Road Operations.
- 2) Department of Agriculture and Consumer Services.
- 3) Department of Natural Resources, through the Department of Law Enforcement.
- 4) Department of Environmental Regulation, Division of Environmental Programs.
- 5) Florida Game and Fresh Water Fish Commission, through the Department of Law Enforcement.
- 6) Department of Military Affairs.
- 7) Division of Environmental Programs.



### 2.1.3 County Response Organizations

Counties that fall within the plume exposure EPZ include Dade County and Monroe County. Counties that fall within the ingestion pathway EPZ include Dade County, Monroe County, Broward County, and Collier County.

The local organizations are described in Annex Q of the State Plan. Counties may have responsibilities with respect to plume exposure risk response, hosting of evacuees, and ingestion pathway protection. Dade and Monroe Counties have responsibilities with respect to risk, hosting and ingestion pathway. Collier and Broward Counties have responsibility for ingestion pathway.

Section XII to Annex Q addresses short term actions required in the plume exposure pathway EPZ. Section XII addresses the ingestion pathway EPZ. State agencies take the lead in controlling ingestion pathway response. Section XII to Annex Q also establishes procedures to protect citizens of Dade and Monroe Counties and visitors to these Counties from the effect of an accident at the Turkey Point plant. Section II to Annex Q includes the Dade and Monroe Counties' Radiological Emergency Organizations.

Annex Q also includes host plans for Dade County and Monroe County, respectively.

Boards of County Commissioners will take proper and responsible action to protect life, health, safety, property,, and the environment from the consequences of nuclear power plant accidents. During radiological emergencies, resources, and personnel of Dade and Monroe Counties will be reserved and available for use by County Commissioners.

FIGURE 2-2a

STATE, LOCAL, AND FEDERAL RESPONSE BEFORE EXECUTIVE ORDER

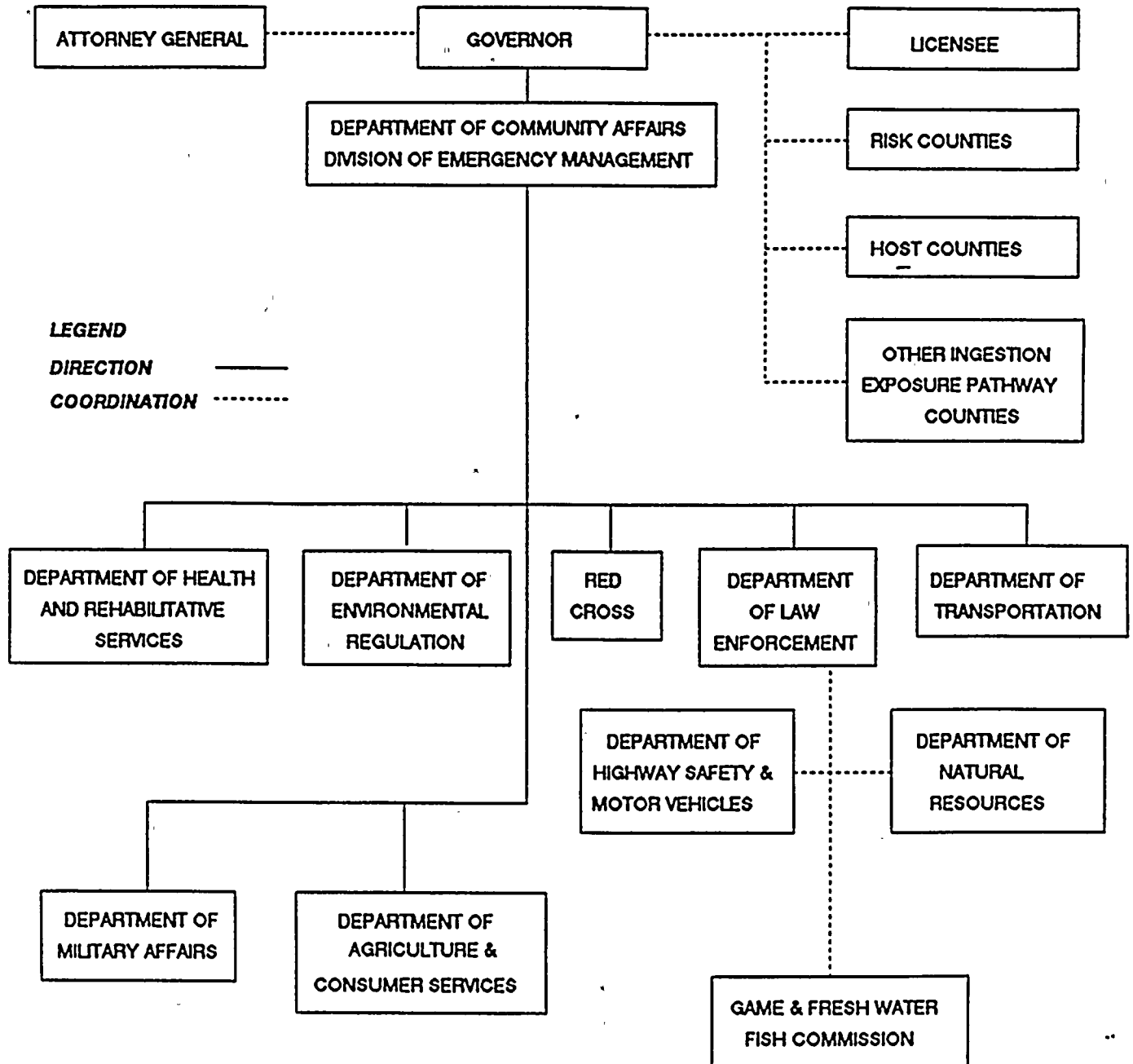
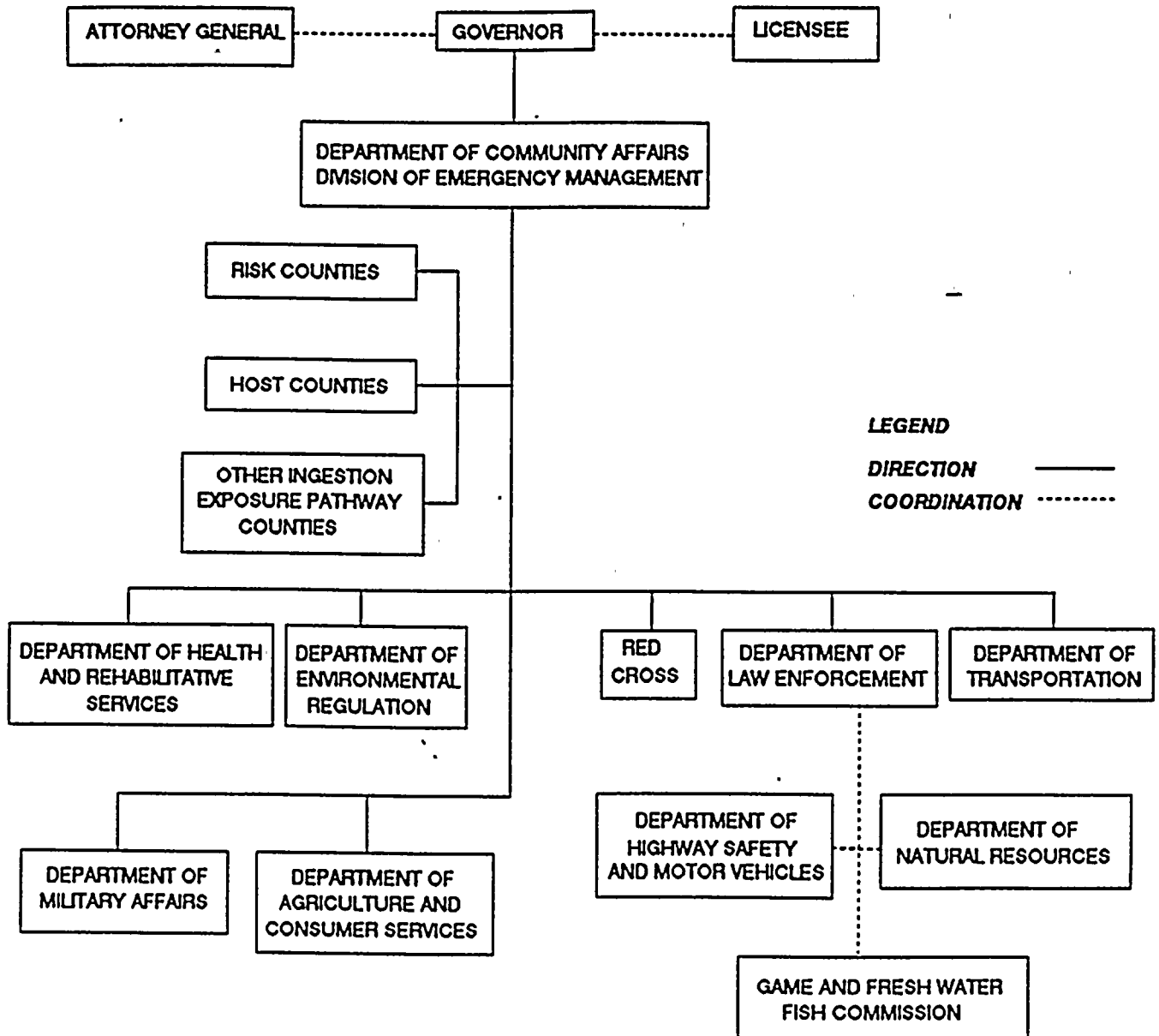


FIGURE 2-2b

STATE, LOCAL, AND FEDERAL RESPONSE AFTER EXECUTIVE ORDER



Decision to implement protective action recommendations will be made jointly by the Dade County Manager and Chairman, Monroe County Board of Commissioners and either the Governor or State Director, Division of Emergency Management. If time does not permit State involvement in initial decision making, the decision to take protective actions may be made by the Dade County Manager and Chairman, Monroe County Board of Commissioners, or their designated alternates. All County personnel and resources will be under the control of the County Commissioners. Federal and State resources will also be available to the Counties.

Alerting, warning, and evacuation of populations will be in accordance with procedures prescribed in Section VI and XII to Annex Q. Sections IX and XII also describe hosting responsibilities, including shelter location and operation, and evacuee registration, monitoring, and decontamination.

Responsibility for direction and control rests with the Dade County Manager and Chairman, Monroe County Board of Commissioners, unless a disaster declaration under provisions of Florida Statutes, Chapter 252 is in effect. If a disaster has been declared, responsibility for direction and control rests with the Governor or Director, Division of Public Safety Planning and Assistance.

The Dade County Office of Emergency Management reports to the County Manager and the Monroe County Civil Defense Division to the Board of Commissioners. This is also true for other County resources, including the County Manager, Sheriffs' Offices, Engineers' Offices, fire departments, public health offices, school boards, and other County organizations.

The Chairman, Monroe County Board of Commissioners, and Dade County Manager have responsibility for overall emergency response planning. County Emergency Response Directors are responsible for actual plan development and updating. Dade County and Monroe County each have an Emergency Operations Center.

#### Dade County Office of Emergency Management and Monroe County Office of Civil Defense Directors

The county Emergency Response Directors (Monroe and Metropolitan Dade County) receive initial notification from Florida Power & Light Company simultaneously with the DEM via the Hot Ring Down System or NAWAS, or individually by DEM via other alternate communications for all four classes of emergency. They then have responsibility for initiating any necessary offsite protective actions (including evacuation of offsite areas) based upon available information from the FPL Emergency Coordinator and Office of Radiation Control (DHRS). The Dade County and Monroe County Plans are a part of the State plan.





In addition to overall responsibility, the Emergency Response Directors have responsibility for the following:

- 1) Direction and control of county emergency resources.
- 2) Protective response for offsite areas including warning and evacuation.
- 3) Communications.
- 4) Public information.
- 5) Offsite radiological exposure control.
- 6) Coordination of arrangements for shelter and feeding of evacuees.

Metropolitan Dade County Public Safety Department and Monroe County Sheriff

At the request of the respective Emergency Response Directors, the Dade County Public Safety Department or the Monroe County Sheriff can provide the following support services:

- 1) Law enforcement.
- 2) Warning and evacuation (implementation).
- 3) Traffic control.
- 4) Communications (support).
- 5) Rescue (support).

Other Local Agencies

As defined in the County plans, the Emergency Response Directors can request support as necessary from the following:

- 1) Department of Fire and Rescue.
- 2) Department of Public Health.
- 3) Public Works/General Services Administration.



4) Metro Transit Agency (Dade County).

5) American Red Cross.

The Metropolitan Dade County Fire Department, by agreement with Florida Power & Light Company (Appendix B) will respond to fires onsite upon request.

#### 2.1.4 Federal Response Agencies

##### U. S. Nuclear Regulatory Commission

The Nuclear Regulatory Commission (NRC) will be notified via a direct, dedicated telephone line (ENS hotline) or designated alternate communications within one hour after identifying the existence of an emergency condition. NRC is responsible for the coordination of the Federal Government's technical response activities.

##### U. S. Coast Guard

At the request of Florida Power & Light Company (onsite activities) and the DEM (offsite activities), the Coast Guard can provide rescue assistance in accordance with their general authority as described in Appendix B.

##### U. S. Department to Energy (DOE)

Upon request by the DHRS, DEM can request that the DOE provide a Radiological Assistance Team to aid in evaluating radiological hazards. This support would be provided out of DOE's Savannah River Operations Office, Aiken, South Carolina. This provision is described in Annex I Section IV of the State plan. DOE is responsible for coordinating the offsite radiological monitoring and evaluation activities of the Federal Government.

##### Federal Emergency Management Agency (FEMA)

FEMA has the responsibility for coordinating all non-technical response activities of the Federal Government offsite. They serve as the primary point of contact for requests for federal assistance from state and local officials and other federal agencies.

### 2.1.5 Private Sector Organization

#### Institute of Nuclear Power Operations (INPO)

INPO maintains industry source lists for personnel and equipment which can be made available for support services during an emergency. A letter of support has been provided in Appendix B.

### 2.2 Florida Power & Light Company Emergency Response Organization

The purpose of this section is to describe FPL's Emergency Response Organization including both site and corporate organization resources. The Emergency Response Organization is defined relative to the two phases of response and actions which are anticipated. This approach recognizes that the organization will be a dynamic one, dependent upon response time and the severity of the emergency. The "immediate" response organization consists of the plant duty shift and other plant personnel as available to be called in from offsite to diagnose the emergency and take corrective actions. The "expanded" response organization includes broader corporate resources which can be made available, if the emergency warrants, to assist in assessment actions, control, and stabilization.

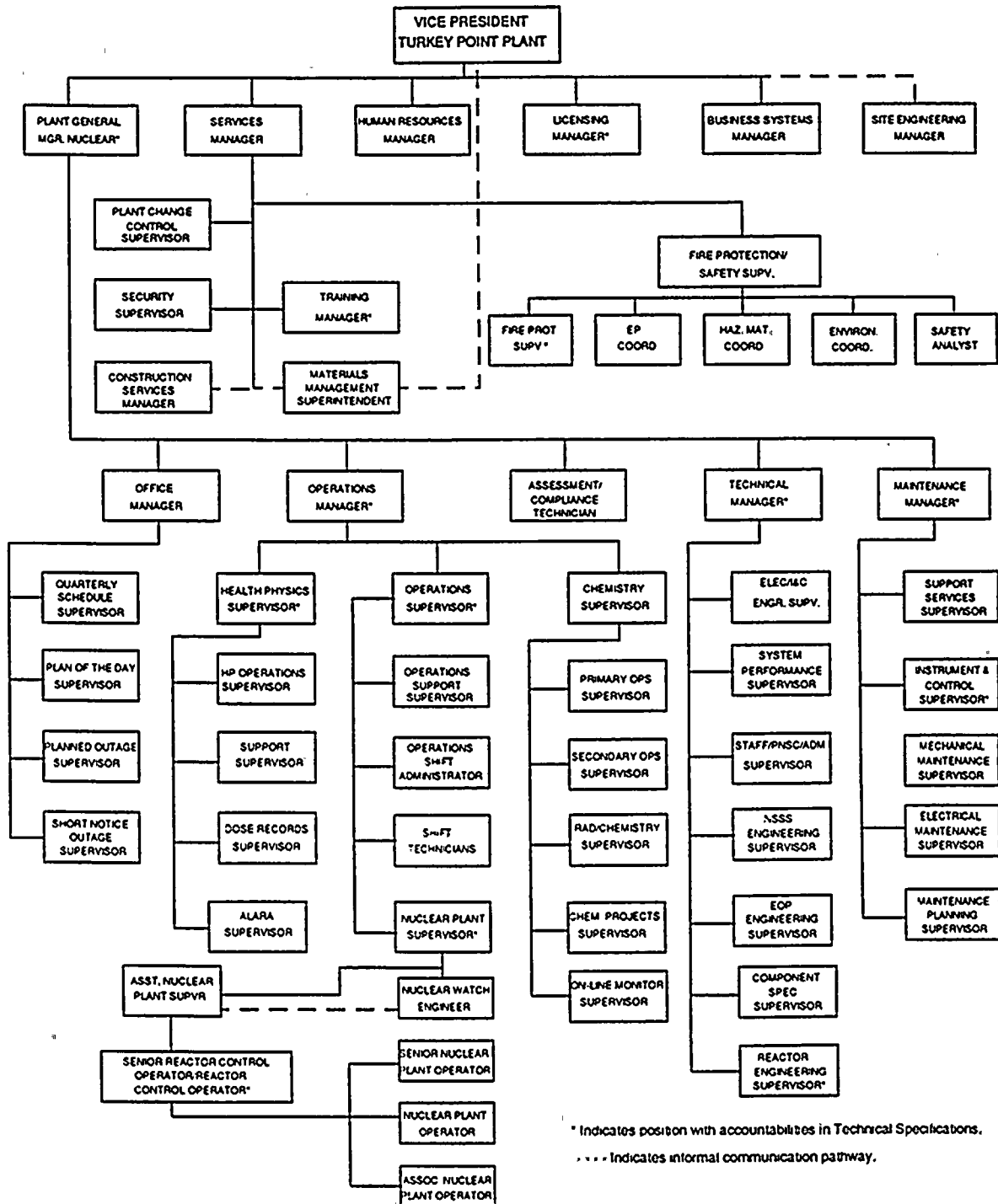
#### 2.2.1 Normal Operating Organization

The normal operating organization chart for Turkey Point Units 3 and 4 is shown on Figure 2-3. The plant is staffed and qualified to take the necessary actions to implement the Emergency Plan and to initiate the immediate response actions necessary.

The normal hours plant staff consists of approximately 550 people. Key operating positions are described below:

FIGURE 2-3

# TURKEY POINT PLANT NORMAL OPERATING ORGANIZATION





### Vice President, Turkey Point-Nuclear

The Vice President, Turkey Point-Nuclear reports to the President, Nuclear Division, and has the direct responsibility for the operation and maintenance of the Turkey Point Plant in a safe, reliable, and efficient manner.

### Plant General Manager-Nuclear

The Plant Manager-Nuclear reports to the Vice President, Turkey Point-Nuclear and is responsible for overall plant operation and control over those onsite activities necessary for safe operation and maintenance of the plant.

### Operations Manager-Nuclear

The Operations Manager-Nuclear has the overall responsibility for directing the day-to-day operation of the nuclear units. He reports directly to the Plant Manager-Nuclear and the Operations Supervisor-Nuclear reports to him.

### Operations Supervisor-Nuclear

The Operations Supervisor-Nuclear has responsibility for directing the activities of the nuclear plant operating shifts, including the Nuclear Plant Supervisors, Assistant Nuclear Plant Supervisors, and the Nuclear Watch Engineers.

### Nuclear Plant Supervisor

The Nuclear Plant Supervisor is responsible for the actual operation of the nuclear plant and fuel handling operations on his assigned shift. He directs the activities of the personnel on his shift and is cognizant of maintenance activity being performed while he is on duty. He reports directly to the Operations Supervisor-Nuclear.

### Assistant Nuclear Plant Supervisor

The Assistant Nuclear Plant Supervisor is responsible for assisting the Nuclear Plant Supervisor in the administrative functions associated in operating the nuclear units. He is responsible for the actual operation of the nuclear plant and fuel handling operations when the Nuclear Plant Supervisor is absent from the control room. He reports directly to the Nuclear Plant Supervisor.

### Nuclear Watch Engineer

The Nuclear Watch Engineer is the working operating foreman assigned for each shift. He reports directly to the Nuclear Plant Supervisor.

### Health Physics Supervisor

The Health Physics Supervisor supervises the Health Physics Department. He is responsible for implementing and maintaining the plant's radiation protection program.

### Chemistry Supervisor

The Chemistry Supervisor supervises the Chemistry Department. He is responsible for chemical and radiochemical monitoring, analysis, and evaluation. He supervises overall laboratory operation and ensures that chemistry training, record keeping and reporting requirements are met.

### Reactor Engineering Supervisor

The Reactor Engineering Supervisor supervises the Reactor Engineering Department. He is responsible for reactor operation, nuclear physics testing, fuel burnup calculations, fuel shuffles during refueling, and various administrative duties.

### Maintenance Manager

The Maintenance Manager supervises the Electrical, Mechanical, and Instrument and Control (I&C) Departments. He is responsible for the maintenance of mechanical, electrical, and I & C equipment in the nuclear units.





### Technical Department Manager

The Technical Department Manager supervises the Shift Technical Advisors and other general plant engineers and technicians including the Document Control Section.

### Site Quality Manager

The site Quality Manager supervises the Quality Control/Quality Assurance Department. He is responsible for directing the activities of the QC Inspectors who perform surveillance and inspection of nuclear safety related activities to monitor for technical specification and regulatory compliance.

### Site Services Manager

The site Services Manager supervises the areas of training, security, document control, plant change controls, and onsite safety programs including emergency preparedness. The site Services Manager reports to the Vice President - Turkey Point Nuclear.

### Plant Nuclear Safety Committee (PNSC)

The PNSC functions to advise the Plant General Manager - Nuclear on all matters related to nuclear safety. Specific responsibilities of the PNSC are identified in Technical Specifications.

## 2.2.2 Emergency Response Organization

The Emergency Plan is structured so that, insofar as practical, normal company operations are not significantly disrupted. Personnel are designated as part of the Emergency Response Organization and arrangements are made for others in the normal corporate organization to carry out routine duties in the event of an emergency. Emergency Response Organization members are also available periodically to develop, review, and practice procedures covering their responsibilities.

The Manager-Nuclear Emergency Preparedness is responsible for maintaining emergency preparedness as discussed in Chapter 7. He maintains a roster of Corporate Emergency Organization participants and their alternates. This roster is reviewed and confirmed periodically. Each participant is responsible for advising the Manager-Nuclear Emergency Preparedness or Emergency Preparedness Supervisor when his duties are changed such that he can no longer participate. In event of transfer or termination, the Manager-Nuclear Emergency Preparedness or Emergency Preparedness Supervisor is notified by the employee's department head and a replacement is named and trained.



### 2.2.2.1 Immediate Response Phase

#### Initiating Event (Unusual Event, Alert, Site Area Emergency or General Emergency).

The emergency response is initiated by any individual who discovers an emergency condition. This person notifies the Nuclear Plant Supervisor by the fastest means possible. This first phase is characterized by diagnosis and immediate action by the plant operators on shift to place the plant in a safe and stable condition.

#### Organization

If the diagnosis indicates that the condition is classified as an Unusual Event, an Alert, Site Area Emergency or General Emergency, then the Nuclear Plant Supervisor declares an emergency.

The Nuclear Plant Supervisor becomes the Emergency Coordinator and, as such, directs the Onsite Emergency Response Organization. During this initial phase, the operating staff constitutes the response organization. Emergency requirements take immediate precedence over normal operating responsibilities (as determined by procedure or at the direction of the Emergency Coordinator). The Plant Staff Emergency Assignments section (Page 2-17) describes the emergency services that can be provided initially by plant staff. Figure 2-4 shows the immediate response organization.

#### Line of Succession

The line of succession in the Control Room for the position of Emergency Coordinator should the Nuclear Plant Supervisor be incapacitated is as follows (in order of succession):

- 1) Assistant Nuclear Plant Supervisor (ANPS)
- 2) Nuclear Watch Engineer (NWE)
- 3) Any other member of the plant staff with a Senior Reactor license.
- 4) One of the Reactor Control Operators on shift.

It is the responsibility of the new Emergency Coordinator to ascertain the status of all Emergency Coordinator responsibilities. When the EC function is transferred to higher level plant management, the EC may serve the function from the TSC.

The Emergency Coordinator can grant permission for watch relief, including his own, when it is safe in his judgement to do so. Following a proper turnover, the Emergency Coordinator may be relieved of his duties by a qualified member of the Plant Management staff.

#### Actions

The Emergency Coordinator initiates the following actions per plant procedures and using his judgement:

- 1) Orders corrective actions to bring the emergency under control.
- 2) Mobilizes the Onsite Emergency Response Organization.
- 3) Notifies the State Division of Emergency Management State Warning Point Duty Officer and the County Emergency Response Directors in accordance with plant procedures.
- 4) Notifies NRC via ENS within one hour of declaration of an emergency condition.
- 5) Provides recommendations for offsite protective actions as discussed in Section 5.

#### Delegation

The Emergency Coordinator shall not delegate the following responsibilities:

- 1) Classification
- 2) Decision to notify Federal, State and local authorities.
- 3) Recommendation of protective actions for the public (offsite).

The Emergency Coordinator may delegate other responsibilities.

Note: The Recovery Manager assumes the responsibility for notifying Federal, State and local authorities and recommending protective actions when the EOF is manned and operational.

## Plant Staff Emergency Assignments

### A. On Shift Emergency Teams

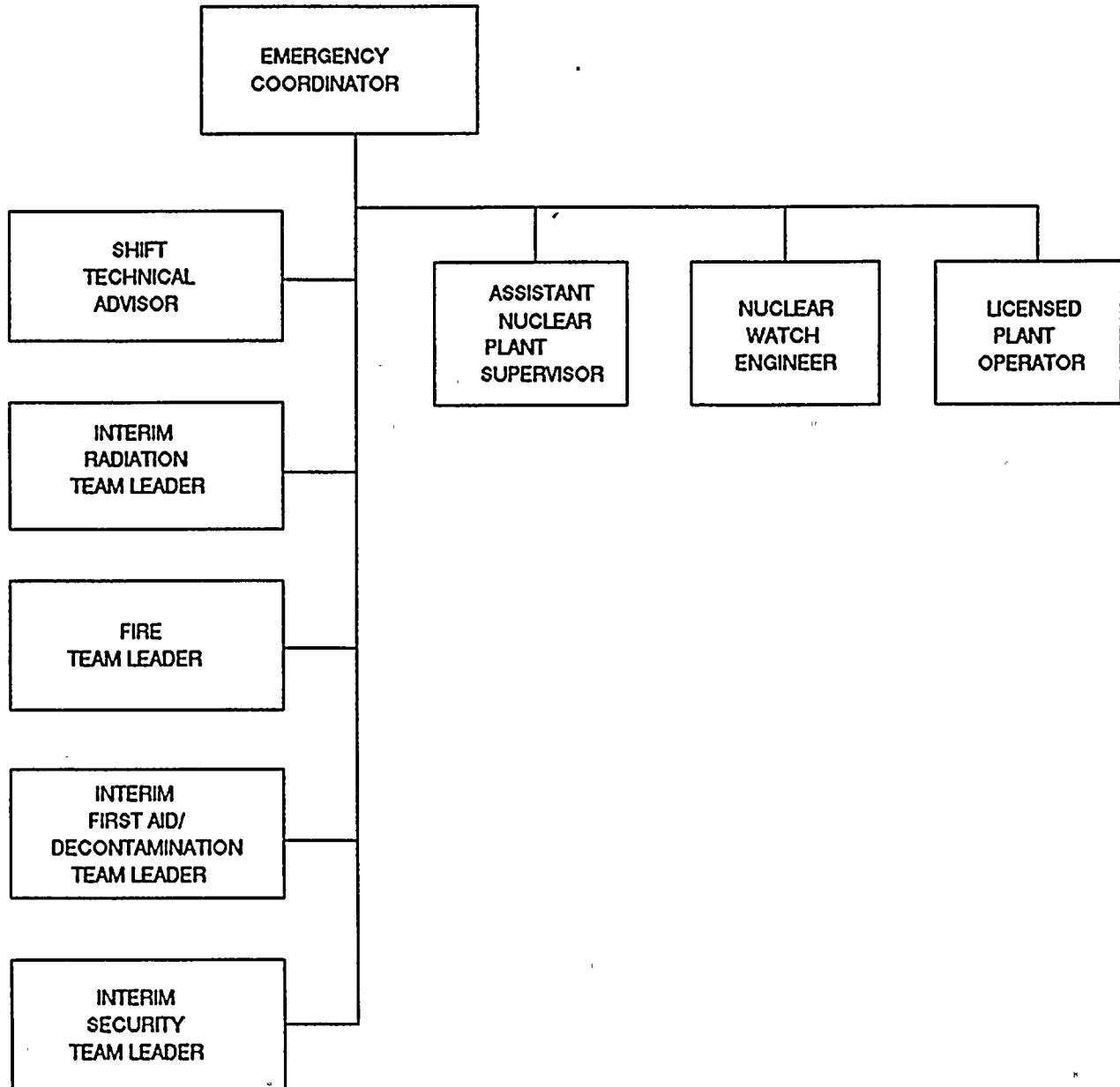
- 1) The On Shift Emergency Response Organization is composed of members chosen from the onsite shift personnel. All are qualified in procedures and practices required for the performances of their duties as designated team members. The emergency response teams take action until the emergency condition is mitigated.
- 2) Members of an On Shift Emergency Response Team may consider themselves relieved only upon the specific instructions of a recognized superior. Merely knowing that a superior is present does not constitute a release from emergency duties and responsibilities.

### B. Primary Emergency Teams

- 1) With the knowledge of the appropriate facility supervisor, primary Emergency Response Organization members may relieve their counterpart on the On Shift Emergency Response Organization.

FIGURE 2-4

**IMMEDIATE RESPONSE ORGANIZATION**







C. Functional Areas of Emergency Activity

1) Plant Systems Operations and Assessments of Operational Aspects

The Nuclear Plant Supervisor on duty becomes the Emergency Coordinator in the event of an emergency. He may be relieved as the Emergency Coordinator by another member of the plant management staff who is trained as Emergency Coordinator. His normal alternate is the Assistant Nuclear Plant Supervisor. The Nuclear Plant Supervisor and Assistant Nuclear Plant Supervisor positions are constantly manned. The Emergency Coordinator initially supervises the operations of the plant systems and controls the actions of emergency teams.

2) Emergency Direction and Control

Emergency Coordinator as previously discussed.

3) Notification and Communication

Emergency Coordinator as previously discussed.

4) Radiological Accident Assessment and In-Plant Protective Actions

The primary TSC Health Physics Supervisor is the Health Physics Supervisor. He directs the radiological surveillance performed by the Health Physics technicians under the orders of the Emergency Coordinator. A Health Physics representative, onsite, is designated as the On Shift TSC Health Physics Supervisor. The TSC Health Physics Supervisor recommends appropriate protective actions to the EC when not covered by procedure.

5) Plant System Engineering, Repair, and Corrective Actions, and Support of Operational Accident Assessment

The Shift Technical Advisor will provide the initial technical support necessary for repair, corrective actions, and operational accident assessment.

6) Firefighting

The Nuclear Watch Engineer is normally the Fire Team Leader. This position is manned continuously, but if he is not available, an alternate will be a trained senior nuclear operator. The Plant Fire Brigade and Metropolitan Dade County Fire Department are available to respond to fires on site, if requested.

7) Rescue Operations and First Aid

- a) Rescue Operations involve the First Aid Team, as necessary. Under the control of the TSC Health Physics Supervisor, entry to potentially hazardous areas will be made by the First Aid Team. Upon notification of the injury, the team will respond per the Emergency Coordinator's instructions.
- b) The chemistry technician is the team leader for the First Aid Team with the Health Physics technician on shift as his alternate. Any First Aid trained employee could render first aid until the First Aid Team can be called in.

8) Site Access Control and Personnel Accountability

The On Shift Security Shift Specialist or designee will act as the TSC Security Supervisor. Personnel control and accountability are the responsibility of the Security Force. Security will notify the EC of any unaccounted for personnel. Notification of personnel in the owner controlled area will take place during the security sweep of the area. It is estimated that personnel accountability can be accomplished within 30 minutes of declaration of an evacuation [by the Security Force].

9) Repair and Damage Control

Repair and damage control will be performed by assigned teams. These teams may be composed of members from any plant disciplines and may be augmented by other plant staff and non-Florida Power & Light company support personnel. Under the direction of the Emergency Coordinator or his designee, these teams are used to mitigate the consequences of the accident and to help restore the normal operation of the plant. Actions include the movement and set-up of portable shielding, tools, emergency equipment, and the operation of plant systems.

**TABLE 2-2a**  
**SHIFT AND EMERGENCY STAFFING CAPABILITIES**

**A. Normal Operations Shift Staffing**

<u>Position/Function</u>	<u>On-Shift</u>
Senior Reactor Operator (NPS, ANPS, NWE)	3
Reactor Operator (RCO, SRCO)	3
Shift Technical Advisor	1
Nuclear Operator/Senior Nuclear Plant Operator	2
Nuclear Plant Operator/Nuclear Turbine Operator	2
Assistant Nuclear Plant Operator	1
Rad/Chem Technician	1
Health Physics Technician	1

**Note:** Minimum shift crew composition is identified in Technical Specifications. Fire Team staffing is per Tech Specs. Security Force is per Security Plan.

**B. Emergency Staff Capabilities**

<u>Major Functional Area</u>	<u>NUREG 0654, REV. 1</u> <u>Table B-1 Guidance</u>		<u>Augment</u> <u>Staffing</u> <u>Capabilities****</u>
	<u>30 min.*</u>	<u>60 min.*</u>	
Notification/Communication	1	2	
2. Radiological Accident Assessment And Support of Operational Accident Assessment Protective			
A. Senior Manger (EOF)	-	1	
B. Offsite Dose Assessment Rad/Chem Technician**	1 -	- -	
C. Health Physics Technicians**	7	6	

\* Estimated response time from receipt of notification.

\*\* Combines all qualified individuals for similar functions from Table B-1.

\*\*\* This individual available for either or both positions.

\*\*\*\* Augment staffing capabilities are routinely tested to ensure timely response is maintained with respect to the goals identified in NUREG 0654.



TABLE 2-2a (cont.)

**SHIFT AND EMERGENCY STAFFING CAPABILITIES**

<u>Major Functional Area</u>	<u>NUREG 0654, Rev. 1</u> <u>Table B-1 Guidance</u>		<u>Augmented Staffing</u> <u>Capabilities****</u>
	<u>30 min.*</u>	<u>60 min.*</u>	
3. Plant System Engineering, Repair and Corrective Actions			
A. Core/Thermal Hydraulics	1	-	
B. Electrical (TSC)/ Mechanical (TSC)	- -	1 1	
C. Mechanical Maintenance	-	1	
D. Radwaste Operator	-	1	
E. Electrical Maintenance	1	1	
F. I&C Technician	1	-	

\* Estimated response time from receipt of notification.

\*\* Combines all qualified individuals for similar functions from Table B-1.

\*\*\* This individual available for either or both positions.

\*\*\*\* Augment staffing capabilities are routinely tested to ensure timely response is maintained with respect to the goals identified in NUREG 0654.

TABLE 2-2b

**FLORIDA POWER & LIGHT EMERGENCY RESPONSE ORGANIZATION  
FUNCTIONS AND RESPONSIBILITIES**

<u>Function</u>	<u>Responsibility</u>	
	<u>Immediate</u>	<u>Expanded</u>
Command and Control	Emergency Coordinator (Nuclear Plant Supervisor)	Recovery Manager
Warning	Emergency Coordinator	Recovery Manager
Notification/Communications	Emergency Coordinator	Recovery Manager
Public Information	Emergency Information Manager	Emergency Information Manager
Accident Assessment	Emergency Coordinator (assisted by Shift Technical Advisor)	Recovery Manager (assisted by Emergency Technical Manager, Emergency Coordinator and TSC technical staff)
Fire	Fire Team Leader	Fire Team Leader
Rescue	Emergency Coordinator	Emergency Coordinator
Traffic Control	TSC Security Supervisor	TSC Security Supervisor
Emergency Medical Services	First Aid Team Leader	First Aid Team Leader
Transportation	TSC Security Supervisor (Shift Security Specialist)	Emergency Security Manager
Protective Response (Onsite)	Emergency Coordinator	TSC HP Supervisor
Radiological Exposure Control (Onsite)	Emergency Coordinator	TSC HP Supervisor

#### 2.2.2.2 Expanded Response Phase

##### Initiating Action

The second phase is initiated by the Emergency Coordinator. His notification activities mobilize the Florida Power & Light Company Emergency Organization as well as state, local, and federal emergency response organizations. Mobilization of the FPL personnel proceeds to the degree necessary to respond to the severity of the accident as determined by the EC (onsite) and the ECO (Corporate FPL and offsite). The EC endeavors to put the plant in a safe condition. Responsibility for response is centered about the plant organization (including off-duty personnel notified to report to the plant) with assistance provided by the Corporate Emergency Organization. This phase represents the period where augmenting staff support is shaped by the determinations of the Emergency Coordinator and Emergency Control Officer as described below. Figure 2-5 shows the response organization that can develop during this period, if required.

##### Emergency Classification

Notification of any emergency as defined by this plan will be made to the ECO via the Emergency Coordinator. In an Alert, the FPL Corporate Emergency Organization will be notified by the ECO and at a minimum placed in a standby state.

Declaration of Site Area Emergencies and General Emergencies will initiate the establishment of the expanded response organization. The FPL Corporate Emergency Organization will be notified and mobilized.

##### Emergency Control Officer (ECO)

The ECO will be designated Corporate Officer or Senior Manager with the authority to establish policy and to expend the funds necessary to cope with any emergency situations that arise. He is responsible for notifying and mobilizing the Corporate Emergency Organization and activating the EOF. He is responsible for all FPL offsite emergency activities, including personnel assignments and communication arrangements. He provides for dispatching a Company representative, as necessary, to the Dade and Monroe County Emergency Operations Center.

##### Recovery Manager (RM)

The RM will be the Site Vice President or a designated Senior Manager who has knowledge of nuclear plant operations and design and who will be responsible for directing the Company's expanded emergency response organization. The RM can either report to the Emergency Operations Facility or designate a senior management level





person to respond on his behalf. The RM may report to the onsite Technical Support Center to obtain information depending upon his assessment of the situation. Specific responsibilities for the RM or his designee include the following:

- 1) To inform periodically the Emergency Control Officer of the onsite status and immediately of any significant changes.
- 2) To provide support and data as necessary to the Emergency Coordinator.
- 3) To obtain information on diagnosis and prognosis of the emergency, estimates of radioactive releases, prevailing meteorological conditions, projected radiological exposures, and recommended offsite protective actions.
- 4) To assume from the EC, the responsibility for communicating such information to and coordinating with the state and county response organization.
- 5) To assure continuity of technical and administrative support, and material resources.
- 6) To request additional support for FPL and others as necessary.
- 7) To provide for logistics support for emergency personnel (e.g., transportation, communications, temporary quarters, food and water, sanitary facilities in the field, and special equipment and supplies procurement).

#### Emergency Information Manager (EIM)

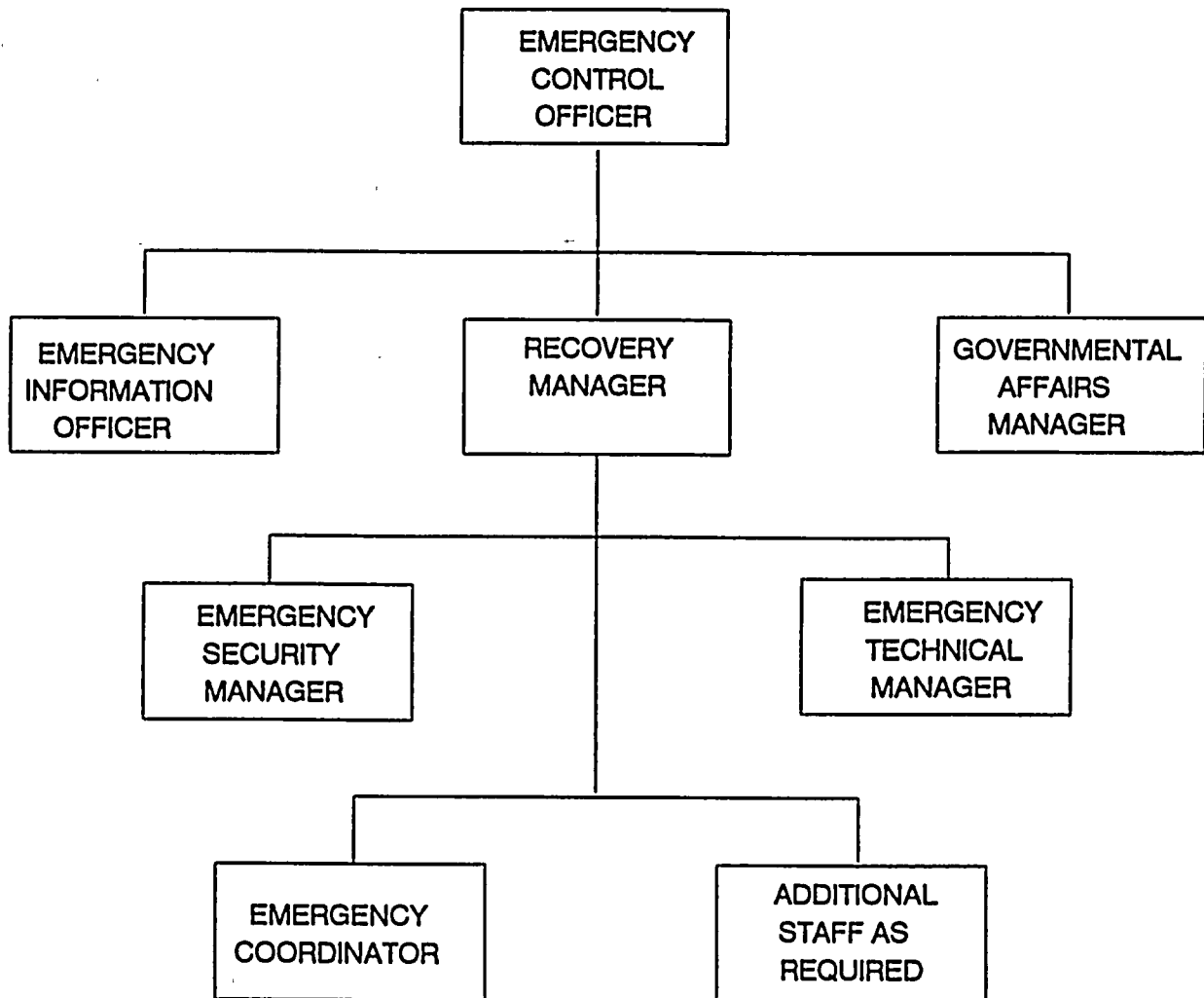
The EIM will be a designated Corporate Officer or Senior Manager experienced in disseminating information to the public via the news media. During this phase, the EIM can operate from the Emergency Operations Facility or the Emergency News Center, as conditions dictate. He will have the following responsibilities.

- 1) To act as principal public spokesman for FPL.
- 2) To disseminate available information from the ECO to the news media and to provide periodic updates.
- 3) To work with Federal, state, and county public information representatives to effect joint releases and public appearances.



FIGURE 2-5

**EXPANDED RESPONSE ORGANIZATION**



### Emergency Security Manager (ESM)

The ESM will be a Company supervisor or manager with security experience and will be responsible to the RM for providing liaison with county law enforcement and rescue agencies.

### Emergency Technical Manager (ETM)

The ETM will be a Senior Management level engineer with detailed knowledge of nuclear plant operations and design and who will be responsible for providing technical support and information regarding engineering design for the plant.

### Governmental Affairs Manager (GAM)

The GAM will be a designated corporate officer or senior manager experienced in interfacing with political officials of the State, local and Federal governments. He acts as a liaison between the ECO and these political officials.

### Augmented Staff Support

Additional staff support can be provided during this phase to augment the operating staff onsite and offsite. The Emergency Control Officer will have access to this support through the Corporate Emergency Response Directory maintained by the Manager, Nuclear Emergency Preparedness.

### Lines of Succession

Lines of succession for the Emergency Control Officer and Managers of the Offsite Emergency Organization are controlled by procedures and are maintained by the Manager, Nuclear Emergency Preparedness.

### Delegation

Delegation authority is controlled by procedure.

## 2.3 Emergency Response Support and Resources

This section describes the arrangements that Florida Power & Light Company has made for assistance to augment the Emergency Response Organization.

### 2.3.1 Response Organization Representatives

Florida Power & Light company has provided facilities in the Emergency Operations Facility for representatives from FPL, state, local, and federal response organizations.

### 2.3.2 Radiological Laboratories

Florida Power & Light Company has primary and backup radiological laboratory facilities available. Environmental sampling will be augmented by the state's Mobile Emergency Radiological Laboratory (MERL) within approximately six hours of notification. If required, the laboratory facilities at FPL's St. Lucie Plant can be used; appropriate arrangements will be made on an as needed basis.

### 2.3.3 Additional Assistance

The Institute of Nuclear Power Operations (INPO) maintains industry source lists for personnel and equipment which can be made available for support services during an emergency. Additional technical assistance can also be obtained directly from the NSSS Vendor (Westinghouse Electric Corporation).

### 2.3.4 Support to Federal Assistance Teams

The Recovery Manager has the authority to request Federal assistance. It is expected that such assistance will be provided primarily by the NRC. Also, FEMA may send a representative for near-site coordination. It is expected that NRC personnel will begin to arrive at the site within six hours after declaration of a Site Area or General Emergency. Requests for assistance from the Department of Energy's Savannah River Operations in Aiken, South Carolina can be made by the State under the Federal Radiological Emergency Response Plan. Such requests are the responsibility of the Director of the Division of Emergency Management.

Federal assistance teams can achieve access to the plant via the Miami airport, approximately one hour from the plant. The Recovery Manager will assign an individual to meet such assistance teams and to escort them to the appropriate facilities on an as needed basis.

FPL has reserved space and facilities for a staff of nine from the NRC and one from FEMA at the EOF. This staff will have access to commercial telephone lines. The FEMA representative will also have access to Local Government Radio. Other support services (reproduction, office supplies, etc.) will be arranged through FPL. FPL has also allocated space in the Technical Support Center for a staff of five NRC personnel. This staff will have access to the dedicated ENS line. Other support services will be arranged through

FPL. In addition to space in the TSC, FPL has provided a near-site facility for the NRC response team on the second floor of the building that houses the TSC (see Figure 2-6).

## 2.4 Emergency Facilities and Equipment

This section describes the facilities and equipment that Florida Power & Light Company maintains in readiness for an emergency situation. Figure 2-6 shows the locations of the facilities.

### 2.4.1 Control Room

For any emergency response, the Control Room serves as the initial point of control. The Nuclear Plant Supervisor stations himself in the Control Room when he assumes the role of Emergency Coordinator. If necessary the EC may leave the control room, after a proper turnover to a qualified alternate, to make a personal assessment regarding plant safety. The Control Room is designed to remain tenable under conditions described in the FSAR. All plant related operations are directed from the Control Room. Nuclear plant instrumentation, including area and process radiation monitoring system instrumentation, is provided in the Control Room to give early warning of a potential emergency and to provide for continuing evaluation of an emergency situation. The Control Room contains the controls and instrumentation necessary for operation of the reactor under normal and emergency conditions.

A supply of protective clothing and respiratory equipment is maintained in the Control Room. Table 2-3 provides a list of emergency equipment maintained in the Control Room.

The Control Room contains the necessary communications equipment for notifying onsite personnel and offsite authorities in the event of an accident. This includes the State Hot Ring Down Telephone System, National Warning System (NAWAS), Local Government Radio (LGR), System, Emergency Notification System (ENS hotline) to the NRC Operations Center (in Bethesda, Md.), commercial telephones, Florida Power & Light Company radio system (UHF, VHF), plant page system, portable radio sets (walkie-talkies), and a radio paging system. These systems are used as defined by procedure to accomplish the necessary notifications and communications.

### 2.4.2 Emergency Operations Facility

The Company maintains an Emergency Operations Facility at the FPL General Office building (9250 W. Flagler in Miami) from which evaluation and coordination of all FPL activities related to an emergency can be carried out and from which FPL can provide information to federal, state, and local authorities.



Activation of the Emergency Operations Facility will be initiated by the Emergency Control Officer. The Emergency Operations Facility will be activated for an emergency classified as a Site Area Emergency or General Emergency. The Emergency Control Officer may activate the Emergency Operations Facility in other emergency classes at his discretion.

The Emergency Operations Facility (EOF) is maintained in the General Office. It provides for sufficient space to accommodate the Florida Power & Light Company response organization and representatives of the designated federal, state, and local authorities. Alternate temporary locations for the Emergency Operations Facility may be designated by the Emergency Control Officer if a natural disaster or other external events significantly affects the operational capability of the facility.

The Emergency Operations Facility has an emergency communications network which includes commercial telephone lines, redundant company radio systems, and dedicated communication capability with offsite agencies.

The Emergency Operations Facility will be staffed, as required, under the direction of the Emergency Control Officer. Arrangements will be made to staff the EOF in a timely manner.

#### 2.4.3 Technical Support Center

The Company maintains an onsite Technical Support Center (TSC) to provide the Control Room and the Emergency Operations Facility with in-depth diagnostic and engineering assistance without adding to congestion within the Control Room. This assistance can help determine the operational decisions that would be appropriate to better control and to mitigate the consequences of an emergency.

Activation of the Technical Support Center will normally be initiated by the Emergency Coordinator in the event of an Alert, Site Area Emergency or General Emergency. The TSC will be staffed by personnel under the direction of the Emergency Coordinator. Arrangements will be made to staff the TSC in a timely manner.

The Technical Support Center provides for access to certain plant parameters monitored in the Control Room. The Technical Support Center contains equipment for monitoring airborne contamination and direct radiation. The Technical Support Center also contains protective clothing and respiratory protection devices. Pertinent records and drawings are available in the TSC. Table 2-3 provides a listing of the emergency equipment maintained in the Technical Support Center.

The Technical Support Center has an emergency communications network including commercial telephone lines to the Control Room, the Emergency Operations Facility, and the ENS dedicated phone line to the NRC Operations Center (in Bethesda, MD) and the NRC Region II Office (in Atlanta, GA).





#### 2.4.4 Operations Support Center

The Company maintains an onsite Operations Support Center (OSC) to serve as an assembly point for auxiliary operators, who are not needed at their stations and emergency team personnel who do not report immediately to the scene of the emergency. Emergency teams will be directed to appropriate activities by the Emergency Coordinator or his designee through the OSC Supervisor.

Equipment that can be used by personnel dispatched from the OSC is stored in or near the OSC. Table 2-3 indicates the types of radiological protection material and equipment stored there.

Activation of the OSC will be initiated by the Emergency Coordinator. The OSC will be in operation for an Alert, Site Area Emergency or General Emergency within two hours of the declaration. Arrangements will be made to staff the OSC in a timely manner.

The OSC is maintained in the Maintenance Building Lunch Room. Open line telephone communications are maintained between the OSC and the Technical Support Center.

#### 2.4.5 Alternate Operations Support Center

In the event that the OSC becomes uninhabitable, the Emergency Coordinator will designate an alternate location. One alternate location which may be chosen is the Fire Watch area adjacent to the TSC.

#### 2.4.6 Emergency News Center

An Emergency News Center (ENC) will be provided to allow the news media access to information from the Emergency Operations Facility. The Emergency Information Manager will designate an individual to supervise the ENC. The ENC is located on the second floor of the General Office Building.

A Near-Site Information Center may be set up at the Homestead National Guard Armory if deemed necessary by the Emergency Information Manager. It is located at 807 N. E. 6th Avenue (just south of Campbell Drive) approximately 9 miles WNW of the Plant. The Emergency Information Manager will designate an individual to supervise the Near-Site Information Center, when activated.

#### 2.4.7 Nuclear Division Management Center

The Nuclear Division Management Center is an area within the Nuclear Division offices at the Florida Power & Light Company Juno Beach location. The Emergency Control Officer and his staff may man the center to direct initial action of the Corporate Emergency Organization (Figure 2-5) and to provide support and resources to the onsite organization until the ECO directs the Organization to staff the EOF.

#### 2.4.8 Metropolitan Dade County Emergency Operations Center

The Dade County EOC will be the point from which county response activities will be controlled. The facility is located at 5600 SW 87 Avenue, Miami, Florida. communications include Hot Ring Down, NAWAS, RACES, Local Government Radio, teletype, police and fire networks, and telephone.

#### 2.4.9 Monroe County (Plantation Key) Emergency Operations Center

The Monroe County (Plantation Key) Emergency Operations Center, located in the Government Center, will be where the county's emergency response activities are controlled. Communications include the Hot Ring Down, NAWAS, Local Government Radio, facsimile, police and fire radio, and commercial telephone. The Monroe County EOC in Key West will aid the Plantation EOC where possible.

#### 2.4.10 Florida State Emergency Operations Center (State Warning Point)

The State's initial response comes from the State EOC in Tallahassee. Initial notification goes to the State Warning Point located in the EOC. The location is, 2740 Centerview Drive, Tallahassee, Florida. Communications include Hot Ring Down, NAWAS, LGR, facsimile, teletype and telephone. This facility is manned 24 hours a day by a duty officer.

### 2.5 Medical and Health Support

This section describes the agreements and provisions that Florida Power & Light Company has made for emergency medical support.

**FIGURE 2-6  
TURKEY POINT PLANT EMERGENCY FACILITIES LOCATION MAP**

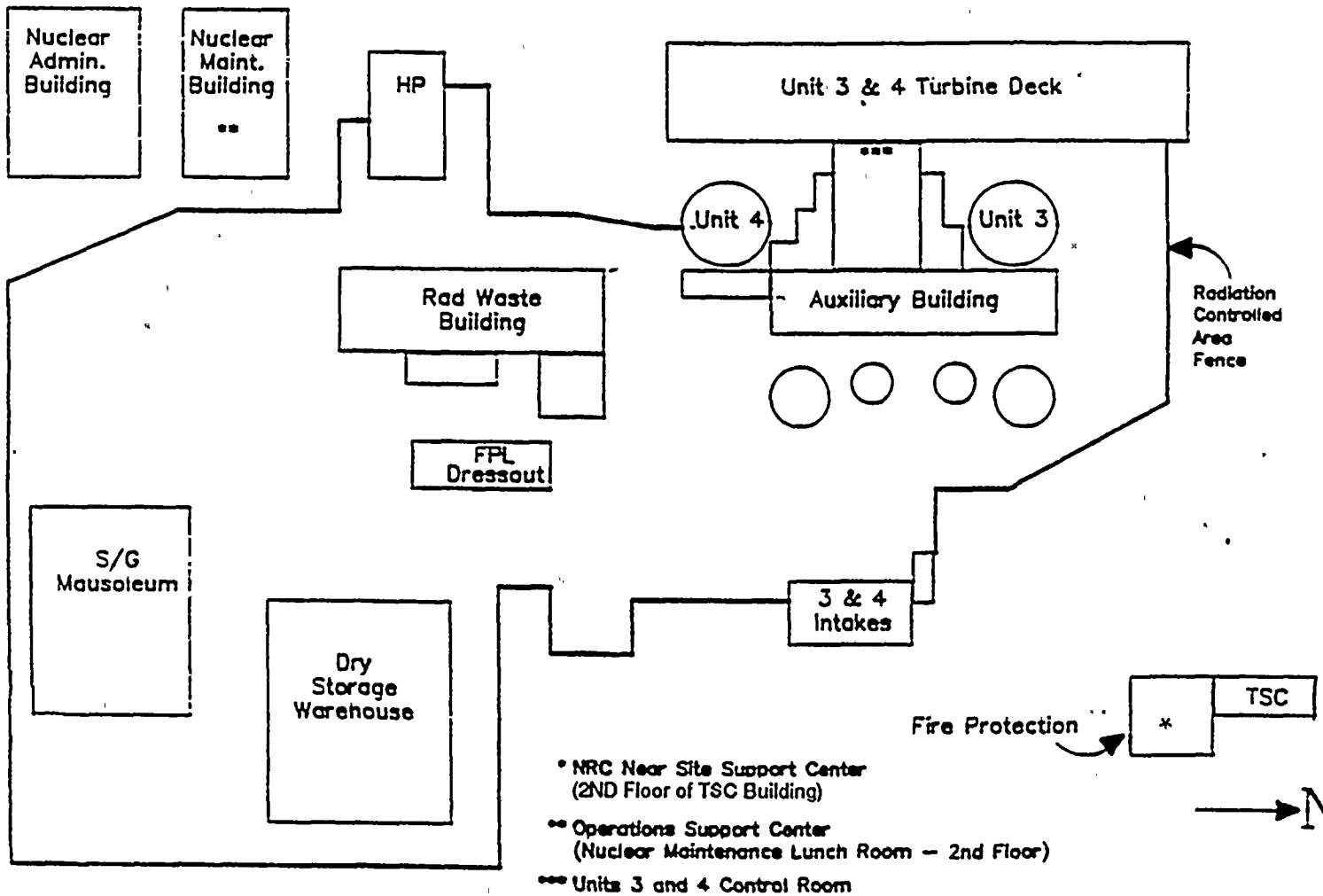


TABLE 2-3

**ONSITE EMERGENCY RESPONSE FACILITIES EMERGENCY EQUIPMENT**

CONTROL ROOM EMERGENCY EQUIPMENT

DOSE RATE METER  
FRISKER (COUNT RATE METER)  
FULL FACE RESPIRATORS  
IODINE CANISTERS  
SELF READING DOSIMETERS  
DOSIMETER CHARGER  
PROTECTIVE CLOTHING  
SELF CONTAINED BREATHING APPARATUS

OPERATIONS SUPPORT CENTER EMERGENCY EQUIPMENT

DOSE RATE METER  
FRISKER (COUNT RATE METER)  
FULL FACE RESPIRATORS  
IODINE CANISTERS  
SELF READING DOSIMETERS  
DOSIMETER CHARGERS  
PROTECTIVE CLOTHING  
AIR SAMPLER  
AIR SAMPLE HEAD  
PARTICULATE FILTERS  
SILVER ZEOLITE CARTRIDGES  
SELF CONTAINED BREATHING APPARATUS

TECHNICAL SUPPORT CENTER EMERGENCY EQUIPMENT

DOSE RATE METER  
FRISKER (COUNT RATE METER)  
FULL FACE RESPIRATORS  
IODINE CANISTERS  
AIR SAMPLER  
AIR SAMPLE HEAD  
PARTICULATE FILTERS  
SILVER ZEOLITE CARTRIDGES  
SELF READING DOSIMETERS  
DOSIMETER CHARGES  
PROTECTIVE CLOTHING

### 2.5.1 Plant First Aid Facility

The plant First Aid Facility and ambulance are provided with first aid supplies. In addition, standard 24-unit first aid kits are maintained at numerous locations throughout the Turkey Point Plant. A commercial first-aid kit, containing the same type of supplies as the 24-unit kit is maintained in the Florida City Substation. The medical supplies and first aid kits in the first-aid station, and Florida City Substation, are checked at least every two months and replenished as necessary by the Nuclear Maintenance Department (Substation is replenished and checked by Health Physics). Stretchers are placed at strategic locations at Units 3 and 4.

A personnel decontamination washroom and shower room with chemical decontamination agents is provided in the FPL Dress Out Building. Accepted decontamination practices will be employed onsite as per Health Physics procedure. Life endangering injuries such as extensive burns, serious wounds or fractures shall receive prompt attention in preference to decontamination. Personnel with injuries that cannot be adequately handled on site involving radiation or radioactive contamination, will be handled by South Florida Emergency Physicians, P.A. in the Emergency Room at Baptist Hospital of Miami, Inc., or by Emergency Room Medical Associates, P.A. (ERMA) at Mercy Hospital.

### 2.5.2 South Florida Emergency Physicians, P.A.

The South Florida Emergency Physicians, P.A., located within Baptist Hospital of Miami, Inc., provides for the immediate availability of fully equipped medical facilities with a staff of physicians and nurses skilled in the treatment of personal injury accompanied by radioactive contamination.

This facility is available on a 24-hour basis.

South Florida Emergency Physicians, P.A., will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light who allegedly have been involved in a radiation incident. When primary facilities are considered inappropriate because of the nature or severity of the injury sustained, then the injured person may be referred to a regional facility for hospitalization. Medical records, including bio-assay records, will be maintained permanently and copies furnished to Florida Power & Light Company.

### Primary Facilities

The facilities of South Florida Emergency Physicians, P.A. are located at Baptist Hospital of Miami. The patient receiving area is equipped for patient decontamination and the performance of emergency medical procedures for life saving purposes. Additional emergency medical facilities in the hospital include the emergency room and an Intensive Care Unit available for the treatment of decontaminated radiation accident casualties or persons who have received only external radiation exposures.

### Backup Facilities

ERMA, located within Mercy Hospital, also provides for the immediate availability of medical facilities and trained hospital staff in the treatment of personal injury accompanied by radioactive contamination. Services are available on a 24 hour basis.

A letter of agreement between the Oak Ridge Associated Universities (ORAU) and Florida Power & Light Company provides backup support for the definitive care and treatment of seriously irradiated persons. The ORAU Medical and Health Sciences Division operates the Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, Tennessee, for the U. S. Department of Energy. It studies radiation and radioactive materials in diagnosis, therapy, and research. Its specialized facilities are available for the care and treatment of possible radiation accident victims.

### Transportation of Injured Personnel

Normal county ambulance service, company vehicle, or private vehicle will provide transportation for injured personnel.

In case of a life-threatening situation the NPS will determine the mode of transportation. The U. S. Coast Guard can provide 24-hour helicopter transportation in a life-threatening situation to a designated hospital on an as available basis.

### Communications

When injured personnel are transported to Baptist Hospital or Mercy Hospital by county ambulance, radio contact as well as telemetry is normally maintained between the Hospital and the ambulance. In all cases, telephone notification is made by the Plant to the Hospital concerning the pending arrival of injured personnel. Additionally, if a helicopter were to be used the Hospital could also maintain ground-to-air communications. Cellular telephones are available on site to be used as an alternative communication means.





### 3. EMERGENCY CLASSIFICATION SYSTEM

The system which has been adopted for categorizing off-normal events or conditions at the Plant has four classes. In order of increasing severity, these are: Unusual Event, Alert, Site Area Emergency, and General Emergency.

#### 3.1 Unusual Event

The Unusual Event category applies to off-normal events or conditions at the Plant for which no significant degradation of the level of safety of the plant has occurred or is expected. Any releases of radioactive material which have occurred or which may be expected are minor and constitute no appreciable health hazard. FPL actions in response to an Unusual Event will be:

- 1) Assesses and respond as directed by the Emergency Coordinator.
- 2) Report the Unusual Event to offsite authorities (FPL and non-FPL) in accordance with plant procedures.
- 3) Provide periodic plant status updates in accordance with plant procedures.
- 4) Close out by verbal summary to offsite authorities, or escalate to a higher class.

#### 3.2 Alert

This classification is represented by events which involve an actual or potential substantial degradation of the level of safety of the plant combined with a potential for limited uncontrolled releases of radioactivity from the plant.

FPL actions in response to this category will be:

- 1) Assess and respond as directed by the Emergency Coordinator.
- 2) The Emergency Coordinator augments resources by activating the onsite Technical Support Center and Operational Support Center.
- 3) Report the Alert Status to offsite authorities (FPL and non-FPL) in accordance with plant procedures.



- 4) Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
- 5) Provide periodic plant status updates in accordance with plant procedures.
- 6) Provide periodic meteorological assessments in accordance with plant procedures if releases are anticipated or occurring. If releases are occurring, provide dose estimates for actual releases.
- 7) Close out by verbal summary to offsite authorities, followed by a written summary within 24-hours, or escalate to a higher class.

### 3.3 Site Area Emergency

This classification is composed of events which involve actual or likely major failures of plant functions needed for protection of the public combined with a potential for significant uncontrolled releases of radioactivity from the plant.

FPL actions in response to this category will be:

- 1) Assess and respond as directed by the Emergency Coordinator.
- 2) Augment resources as necessary by activating the onsite Technical Support Center, the onsite Operations Support Center, and the Emergency Operations Facility.
- 3) Report the Site Area Emergency Status to offsite authorities (FPL and non-FPL) in accordance with plant procedures.
- 4) Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
- 5) Provide periodic plant status updates in accordance with plant procedures.
- 6) Provide periodic meteorological assessments in accordance with plant procedures.
- 7) Provide release and dose projections based on available plant and meteorological information and foreseeable contingencies.



- 8) Close out or recommend a change in emergency class when appropriate by briefing offsite authorities.
- 9) Submit a brief written summary to offsite authorities within 24 hours after closing out the emergency.

### 3.4 General Emergency

This classification is composed of events which involve actual or imminent substantial core degradation and potential loss of containment integrity combined with a likelihood of significant uncontrolled releases of radioactivity from the plant.

FPL actions in response to this category will be:

- 1) Assess and respond as directed by the Emergency Coordinator.
- 2) Augment resources by activating the onsite Technical Support Center, the onsite Operations Support Center, and the Emergency Operations Facility.
- 3) Report the General Emergency status to offsite authorities (FPL and non-FPL) in accordance with plant procedures.
- 4) Dispatch monitoring teams as directed by the TSC Health Physics Supervisor.
- 5) Provide periodic plant status updates in accordance with plant procedures.
- 6) Provide periodic meteorological assessments in accordance with plant procedures.
- 7) Provide release and dose projections based on available plant and meteorological information and foreseeable contingencies.
- 8) Provide offsite protective action recommendations to the State DEM and counties.
- 9) Close out or recommend a reduction in emergency class when appropriate by briefing offsite authorities.



- 10) Submit a brief written summary to offsite authorities within 24 hours after closing out the emergency.

### 3.5 Emergency Action Levels

Emergency action levels for a wide variety of hypothetical off-normal plant occurrences are listed in Table 3-1. The emergency action levels represent conditions generally observable by plant personnel and can be used to properly classify an occurrence as an Unusual Event, and Alert, a Site Area Emergency, or a General Emergency. Included in these tables are all accidents discussed by the Final Safety Analysis Report.

Tables 3-2 and 3-3 contain listings of Process and Effluent Monitors and Area Radiation Monitors that may be used to initiate emergency actions. These tables contain information regarding the type of monitor, range of the instruments and typical setpoints (actual setpoints are defined by procedure).

Table 3-4 contains a listing of non-radiological monitors, meters, or gauges that may be used to initiate emergency actions. This table contains information regarding the parameter measured, typical range of the monitor, meter or gauge, and typical normal range of the instruments.

The Emergency Coordinator may classify off-normal events into one of the four categories in the absence of a specific emergency action level based on an assessment that plant conditions have or may have adverse effects on the level of safety.

#### **Note for Tables 3-1 through 3-4**

The \* indicators, valve numbers etc., indicates the placement of 3 or 4 e.g., TI\*-465 is TI-3-465 for unit 3 and TI-4-465 for Unit 4.

## EMERGENCY CLASSIFICATION TABLE

1. Primary Depressurization - ECCS Initiated Manually or Automatically			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Safety Injection initiated AND High-head ST pump flow to the core			
Possible Control Room Indicators			
FI-943			



EMERGENCY CLASSIFICATION TABLE

Primary Leakage/LOCA			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1-2-3-4 <u>AND</u> Either A or B: A. RCS Leakage in excess of Technical Specifications 3.4.6.2, Reactor Coolant System Operational Leakage as indicated by either: 1) Unidentified RCS Leakage > 1 gpm, <u>OR</u> 2) Identified RCS Leakage greater than ten (10) gpm, <u>OR</u> 3) RCS Pressure Isolation Valve Leakage greater than allowable, <u>OR</u> 4) Any Pressure Boundary Leakage ----- B. Failure of any primary system safety or relief valve to close resulting in an uncontrolled RCS depressurization.	Plant in Mode 1-2-3-4 <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage within available charging pump capacity CAUTION: This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator.	Plant in Mode 1-2-3-4 <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity CAUTION: This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator.	Either A or B: ----- A. RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity <u>AND</u> Containment pressure > 20 psig CAUTION: This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator. ----- B. Plant in Mode 1, 2, 3, 4, <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity <u>AND</u> Loss of containment integrity which provides a flowpath to the environment. CAUTION: This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator ----- CAUTION: Consult Figure 5-1 for required protective action recommendations.
Possible Control Room Indicators			
TI-465, 467, 469 TEC Flow Indicators	Charging/Letdown Flow Mismatch	RCS pressure Containment Pressure ARM's Charging/Letdown Flow Mismatch	RCS pressure Containment Pressure PRMS R-14



## EMERGENCY CLASSIFICATION TABLE

Steam Generator Tube Leak/Rupture			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Either A or B:</p> <p>A Greater than 500 gpd steam generator tube leakage to any one steam generator per Technical Specification 3.4.6.2, Reactor Coolant System</p> <p>-----</p> <p>B Greater than 1 gpm total steam generator tube leakage per Technical Specification 3.4.6.2, Reactor Coolant System</p>	<p>Either A or B:</p> <p>A. Confirmed steam generator tube leakage &gt; 50 gpm AND Steam generator tube leakage within available charging pump capacity AND Loss of offsite power</p> <p>-----</p> <p>B. Steam generator tube leakage greater than available charging pump capacity.</p>	<p>Steam generator tube leakage greater than available charging pump capacity AND Loss of offsite power</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>	
Possible Control Room Indicators			
PRMS R-15 PRMS R-19	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	

4. Loss of Secondary Coolant			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Either A or B:</p> <p>A Steamline or feedline break which results in Safety Injection actuation.</p> <p>-----</p> <p>B Failure of a steam generator safety or steam dump to atmosphere valve to close resulting in uncontrolled secondary depressurization.</p>	<p>Steamline or feedline break which results in Safety Injection actuation AND Evidence of significant (&gt; 10 gpm) steam generator tube leakage in the affected steam generator.</p>	<p>Steamline or feedline break which results in Safety Injection actuation AND Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math> AND Confirmed steam generator tube leakage &gt; 50 gpm in the affected steam generator CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>	
Possible Control Room Indicators			
	<p>PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch</p>	<p>PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch</p>	

TABLE 3-1

## EMERGENCY CLASSIFICATION TABLE

Abnormal RCS Temperature and/or Pressure			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1 - 2 - 3 - 4:  Either A, B, or C <u>AND</u>  A    RCS saturated or superheated ----- B    RCS pressure > 2510 psig ----- C.    RCS pressure and /or temperature above Technical Specification 3.4.9, Pressure/ Temperature Limits			
Possible Control Room Indicators			
Subcooling Margin Monitor			

TABLE 3-1

## EMERGENCY CLASSIFICATION TABLE

6. Fuel Handling Accident			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>A spent fuel element has been dropped or damaged  <u>AND</u>            Release of radioactivity from the damaged spent fuel element has been detected.</p>	<p>Either A, B or C:</p> <p>A. Major damage to one or more spent fuel elements has occurred  <u>AND</u>            Affected area radiation monitors are <math>&gt; 10^3</math> mR/hr.</p> <p>-----</p> <p>B. Major damage to one or more spent fuel elements has occurred  <u>AND</u>            Containment radiation levels <math>&gt; 1.3 \text{ E4 Rem/hr}</math></p> <p>-----</p> <p>C. Major damage to one or more spent fuel elements due to water level being below top of spent fuel.</p>	
Possible Control Room Indicators			
	ARMS R-2, 5, 7, 8, 19, 21, 22 PRMS R-12, 14	ARMS R-2, 5, 7, 8, 19, 21, 22 PRMS R-12, 14 SFP Level Indication RI-6311A RI-6311B	

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## EMERGENCY CLASSIFICATION TABLE

## 7. Loss of Safe Shutdown Functions/ATWS

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>Either A, B, C or D:</p> <p>A. Reactor critical AND Failure of the Reactor Protection System to initiate a trip signal when a trip setpoint has been exceeded.</p> <p>B. Reactor critical AND Reactor fails to trip on automatic signal</p> <p>C. Reactor critical AND Reactor fails to trip on manual signal</p> <p>D. RCS temperature increasing due to loss of decay heat removal capability from all of the following:</p> <ol style="list-style-type: none"> <li>1) RHR system AND</li> <li>2) Forced RCS circulation AND</li> <li>3) Natural RCS circulation</li> </ol>	<p>Either A, B, C or D:</p> <p>A. Inability to bring the reactor subcritical with control rods</p> <p>B. Plant in Mode 1-2-3 AND Loss of steam release capability from all of the following:</p> <ol style="list-style-type: none"> <li>1) Condenser steam dumps AND</li> <li>2) Atmospheric steam dumps AND</li> <li>3) All steam generator safeties</li> </ol> <p>C. Plant in Mode 1-2-3 AND Loss of secondary heat sink has occurred AND RCS bleed and feed is required.</p> <p>D. Plant in Mode 1-2-3 AND RCS injection capability has been lost from:</p> <ol style="list-style-type: none"> <li>1) Charging pumps AND</li> <li>2) High-head SI pumps</li> </ol>	<p>Either A or B:</p> <p>A. Inability to bring the reactor subcritical AND RCS pressure <math>&gt; 2485</math> psig.</p> <p>B. Inability to bring the reactor subcritical AND Containment pressure <math>\geq 4</math> psig.</p> <p><b>CAUTION:</b> Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			





EMERGENCY CLASSIFICATION TABLE

b. Fuel Element Failure			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
RCS activity is greater than Technical Specification 3.4.8, Figure 3.4-1, limit for maximum RCS activity.	<p>Either A, B or C:</p> <p>A. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>.</p> <p>-----</p> <p>B. An increase of &gt; 1% fuel failure in 30 minutes.</p> <p>-----</p> <p>C. Total fuel failure of 5%.</p>	<p>Fuel element failure as indicated by A, B, or C:</p> <p>A. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>. AND RCS <math>T_{\text{hot}} &gt; 620^\circ\text{F}</math>.</p> <p>-----</p> <p>B. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>. AND Core exit thermocouples <math>&gt; 700^\circ\text{F}</math>.</p> <p>-----</p> <p>C. Containment high range radiation monitor reading <math>&gt; 1.3 \text{ E4 Rem/hr}</math>.</p>	<p>Fuel element failure as defined in Site Area Emergency of this section AND Any of the following is imminent or in progress:</p> <p>a) LOCA with loss of containment cooling OR b) LOCA with loss of containment integrity which provides a flowpath to the environment OR c) Steam generator tube rupture with unisolable flowpath from the ruptured steam generator to the environment.</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			
	PRMS R-20 ARMS R-1 through R-6	Core Exit Thermocouples RI-6311A RI-6311B	

TABLE 3-1  
EMERGENCY CLASSIFICATION TABLE

9. Uncontrolled Effluent Release			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B:</p> <p>A. Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas.</p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations.</p> <p>-----</p> <p>B. Technical Specification 3.11 limits for liquid release.</p> <p>NOTE: Direct Chemistry to perform release calculation in accordance with Offsite Dose Calculation Manual.</p>	<p>A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B:</p> <p>A. Ten times Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas.</p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations.</p> <p>-----</p> <p>B. Ten times Technical Specification 3.11 limits for liquid release.</p> <p>NOTE: Direct Chemistry to perform release calculation in accordance with Offsite Dose Calculation Manual.</p>	<p>Performance of EPIP-20126, Offsite Dose Calculation or offsite surveys indicate site boundary exposure levels have been exceeded as indicated by either A, B, C, or D:</p> <p>A. <math>\geq 50</math> mRem/hr whole body for 1/2 hour</p> <p>-----</p> <p>B. <math>\geq 250</math> mRem/hr thyroid for 1/2 hour</p> <p>-----</p> <p>C. <math>\geq 500</math> mRem/hr whole body for 2 minutes</p> <p>-----</p> <p>D. <math>\geq 2500</math> mRem/hr thyroid for 2 minutes</p> <p>NOTE: Site boundary equals 1 mile radius from affected unit.</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>	<p>Performance of EPIP-20126, Offsite Dose Calculation or offsite surveys indicate site boundary exposure levels have been exceeded as indicated by either A, B, C or D:</p> <p>A. <math>\geq 1</math> Rem/hr whole body</p> <p>-----</p> <p>B. <math>\geq 1</math> Rem integrated whole body dose</p> <p>-----</p> <p>C. <math>\geq 5</math> Rem/hr thyroid</p> <p>-----</p> <p>D. <math>\geq 5</math> Rem integrated thyroid dose</p> <p>NOTE: Site boundary equals 1 mile radius from affected unit.</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			

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TABLE 3-1  
EMERGENCY CLASSIFICATION TABLE

10. High Radiation Levels In Plant			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>Severe loss of control of radioactive materials as indicated by either A, B or C:</p> <p>A. Unexpected valid area monitor alarm from an undeterminable source with meter greater than <math>10^3</math> mR/hr.</p> <p>-----</p> <p>B. Unexpected plant iodine or particulate airborne concentration &gt; 1000 MPC as per 10 CFR 20 Appendix B, Table 1.</p> <p>-----</p> <p>C. Unexpected direct radiation dose rate reading or unexpected airborne radioactivity concentration from an undetermined source in excess of 1000 times normal levels.</p>	<p>Containment High Range Radiation Monitor reading &gt; <math>1.3 \text{ E4 Rem/hr.}</math></p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Off-Site Dose Calculations. (See Section 9, Uncontrolled Effluent Release)</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>	<p>Containment High Range Radiation Monitor reading &gt; <math>1.3 \text{ E5 Rem/hr.}</math></p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Off-Site Dose Calculations. (See Section 9, Uncontrolled Effluent Release)</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			
	Area Radiation Monitors	RI-6311A RI-6311B	RI-6311A RI-6311B

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EMERGENCY CLASSIFICATION TABLE

11. Other Plant Conditions That Could Lead To Substantial Core Damage			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
			<p>Either A or B:</p> <p>A. Potential core damage indicated by all of the following:</p> <ol style="list-style-type: none"> <li>1) Known LOCA greater than available charging pump capacity</li> <li>AND</li> <li>2) Failure of ECCS to deliver flow to the core</li> <li>AND</li> <li>3) Containment High Range Radiation Monitor reading <math>&gt; 1.3 \text{ E4 Rem/hr.}</math></li> </ol> <p>-----</p> <p>B. Potential core damage indicated by all of the following:</p> <ol style="list-style-type: none"> <li>1) Loss of secondary heat sink</li> <li>AND</li> <li>2) RCS bleed and feed required</li> <li>AND</li> <li>3) No high-head SI flow available</li> <li>AND</li> <li>4) No RHR flow for greater than 30 minutes</li> <li>AND</li> <li>5) No AFW flow for greater than 30 minutes</li> </ol> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			





EMERGENCY CLASSIFICATION TABLE

2. Loss Of Power Conditions			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Either A or B:</p> <p>A    Loss of offsite power to the:</p> <p>1)    A 4KV bus           AND 2)    B 4KV bus</p> <p>-----</p> <p>B    Loss of onsite power capability as indicated by:</p> <p>1)    Loss of capability to power at least one vital 4KV bus from any of the four available emergency diesel generator.</p>	<p>Either A or B:</p> <p>A.    Loss of all vital onsite DC power.</p> <p>-----</p> <p>B.    Loss of offsite power           AND Both associated emergency diesel generators fail to energize their associated 4KV buses.</p> <p>NOTE: Refer to Section 7, Loss of Safe Shutdown Function</p>	<p>Either A, B or C with fuel in the Reactor Vessel</p> <p>A.    Loss of all A/C power for &gt; 15 minutes.</p> <p>-----</p> <p>B.    Loss of all vital onsite DC power for &gt; 15 minutes.</p> <p>-----</p> <p>C.    Emergency Coordinator leaves Control Room within the first 15 minutes of a loss of all A/C <u>OR</u> DC power.</p>	<p>The following situation exists for &gt; 1 hr with fuel in the Reactor Vessel.</p> <p>a)    Loss of all A/C power           AND b)    Loss of all feedwater capability.</p> <p>CAUTION: Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			
4Kv Bus Voltage 4Kv Bus Amps			

## EMERGENCY CLASSIFICATION TABLE

13. Contaminated Personnel			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Transportation of confirmed externally contaminated injured individual(s) from the site to a medical facility.			
Possible Control Room Indicators			



EMERGENCY CLASSIFICATION TABLE

14. Loss Of Assessment Functions			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Either A, B, or C:  A.    Loss of primary communications with offsite locations AND Loss of all backup communications with offsite locations  -----  B.    Loss of primary onsite meteorological instrumentation AND Loss of all backup onsite meteorological instrumentation AND Loss of all communication with NOAA/NWS  -----  C.    Loss of effluent or radiological monitoring capability requiring plant shutdown	Plant in Mode 1-2-3-4: AND Most or all Control Room annunciator alarms lost for > 5 minutes	A plant transient is in progress AND All Control Room annunciator alarms lost for > 15 minutes	
Possible Control Room Indicators			



EMERGENCY CLASSIFICATION TABLE

15. Natural Phenomena			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1-2-3-4 <u>AND</u> either A, B, C or D:  A. Confirmed hurricane warning <u>OR</u> B. Confirmed tornado in owner controlled area <u>OR</u> C. Any earthquake detected onsite <u>OR</u> D. Hurricane/flood surge that prevents land access to the site	Plant in any mode including defueled. <u>AND</u> either A, B, C or D:  <b>NOTE:</b> If accurate projections of onsite wind speeds are not available within 12 hours of entering the hurricane warning, classify the event using current hurricane track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than current hurricane wind speed if the track is away from PTN.  A. Confirmed hurricane warning with maximum projected onsite wind speeds in excess of 200 mph <u>OR</u> B. Tornado striking any power block structure <u>OR</u> C. Earthquake that could cause or has caused trip of the turbine generator or reactor <u>OR</u> D. Hurricane/flood surge that raises water level > 18 feet above MLW	Plant in Mode 1-2-3-4 <u>AND</u> either A, B or C:  <b>NOTE:</b> If accurate projections of onsite wind speeds are not available within 12 hours of entering the hurricane warning, classify the event using current hurricane track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than current hurricane wind speed if the track is away from PTN.  A. Confirmed hurricane warning with maximum projected onsite wind speeds in excess of 225 mph <u>AND</u> the unit not expected to be in cold shutdown prior to the projected onset of hurricane force winds <u>OR</u> B. Earthquake has caused loss of any safety system function <u>OR</u> C. Hurricane/flood surge that raises water level > 18 feet above MLW and results in shutdown of turbine generator or reactor.	A major natural event (e.g., high winds, earthquake, flooding) has occurred, which could cause massive damage to plant systems resulting in any of the other General Emergency initiating conditions.  <b>CAUTION:</b> Consult Figure 5-1 for required protective action recommendations.
Possible Control Room Indicators			

## 16. Hazards To Station Personnel And Equipment

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Safety of nuclear plant or personnel threatened by either A, B, C, D, or E:</p> <p>A. Aircraft crash onsite -----</p> <p>B. Unusual aircraft activity over facility -----</p> <p>C. Toxic or flammable gas release -----</p> <p>D. Turbine generator rotating component failure requiring rapid turbine shutdown -----</p> <p>E. Onsite explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas.</p>	<p>Either A, B or C:</p> <p>A. A reduction in the level of safety of plant structures or components within the protected area due to damage caused by either 1), 2), or 3):</p> <p>1) Aircraft crash OR 2) Missile impact OR 3) Explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas. -----</p> <p>B. Toxic or flammable gas release which threatens plant operation. -----</p> <p>C. Turbine generator failure resulting in casing penetration.</p>	<p>Either A or B:</p> <p>A. Plant in Mode 1-2-3-4 AND Safety systems have failed or damage to vital structure has been caused by either 1), 2), or 3):</p> <p>1) Aircraft crash OR 2) Missile impact OR 3) Explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas. -----</p> <p>B. Toxic or flammable gas release into control or vital areas which renders one train of safety related systems inoperable.</p>	
Possible Control Room Indicators			





TABLE 3-1

EMERGENCY CLASSIFICATION TABLE

17. Security Threat			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Declaration of a "Security Alert" due to either A, B, C, D, E, F, G, H  A. Bomb Threat ..... B. Attack threat ..... C. Civil disturbance ..... D. Protected area intrusion ..... E. Sabotage attempt ..... F. Internal disturbance ..... G. Vital area intrusion ..... H. Security Force strike	Declaration of a "Security Emergency"	Declaration of a "Security Emergency" involving imminent occupancy of the Control Room or other vital areas by intruders.	Physical attack on the plant resulting in occupation of the Control Room or other vital areas by intruders.  <b>CAUTION:</b> Consult Figure 5-1 for required protective action recommendations.
Possible Control Room Indicators			

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EMERGENCY CLASSIFICATION TABLE

18. Control Room Evacuation			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	Control Room evacuation anticipated or required	Control Room has been evacuated <b>AND</b> Local control of shutdown systems has <b>NOT</b> been established from local stations within 15 minutes.	
Possible Control Room Indicators			

19. Fire			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Uncontrolled fire within the power block lasting longer than 10 minutes	Uncontrolled fire potentially affecting safety systems <b>AND</b> Offsite support required.	Fire which prevents a safety system from performing its design function.	A major fire has occurred which could cause massive damage to plant systems resulting in any of the other General Emergency initiating conditions.  <b>CAUTION:</b> Consult Figure 5-1 for required protective action recommendations.
Possible Control Room Indicators			

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TABLE 3-1

EMERGENCY CLASSIFICATION TABLE

## 20. Loss of Engineered Safety Features/Fire Protection

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Power reduction started in accordance with Technical Specifications due to either:</p> <p>A) TS 3.3.1, Reactor Trip System Instrumentation, OR B) TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, OR C) TS 3.5, Emergency Core Cooling Systems, OR D) TS 3.6, Containment Systems, or E) TS 3.7.2, Component Cooling Water, OR F) TS 3.7.3, Intake Cooling Water, or G) 3.7.5, Control Room Emergency Ventilation System, OR H) T.S. 3.7.8, Fire Suppression Systems.</p> <p>NOTE: Notify Fire Protection Department to consult FSAR Section 9.6, for further guidance on fire protection system requirements</p>			
Possible Control Room Indicators			

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EMERGENCY CLASSIFICATION TABLE

21. Other Plant Conditions Requiring Increased Awareness (Emergency Coordinator's Judgment)			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Emergency Coordinator's judgment that other plant conditions exist which warrant increased awareness on the part of the operating staff and/or local offsite authorities.</p> <p><b>NOTE:</b> Activation of the Emergency Response Facilities does not require declaration of an emergency or entry into a specific emergency classification.</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which warrant the increased awareness and activation of emergency response personnel.</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which warrant the precautionary notification to the public near the site and the activation of FPL and offsite agency emergency response personnel.</p> <p>(Reflects conditions where some significant releases are likely or are occurring but where a core melt situation is not indicated based on current information)</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which make release of large amounts of radioactivity, in a short period of time, possible</p> <p>(Loss of two fission product barriers with potential for loss of the third, such as, actual or imminent substantial core degradation or melting with the potential for loss of containment.)</p> <p><b>CAUTION:</b> Consult Figure 5-1 for required protective action recommendations.</p>
Possible Control Room Indicators			





TABLE 3-2

## PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT

<u>MONITOR SETTINGS</u>	<u>TYPE</u>	<u>MEASUREMENTS</u>	<u>SETPOINT</u>
Containment air particulate monitors (R3-11, R4-11)	Photomultiplier tube scintillation	$1 \times 10^{-11}$ to $1 \times 10^{-5}$ uCi/cc	$4.60 \times 10^{-7}$ uCi/cc
Containment radioactive gas monitors (R3-12, R4-12)	Beta-gamma GM Tube Thin Wall	$1 \times 10^{-7}$ to $1 \times 10^{-1}$ uCi/cc	$1.11 \times 10^{-3}$ uCi/cc
Plant Vent Gas Monitor (R-14)	Beta-gamma GM Tube Assembly (4 tubes in parallel)	10 to $1 \times 10^6$ cpm	$3.6 \times 10^4$ cpm
Condenser Air Ejector Monitors (R3-15, R4-15)	Beta-gamma GM Tube Thin Wall	10 to $1 \times 10^6$ cpm	$4 \times 10^3$ cpm
Component Cooling Liquid Monitors (R3-17A, R3-17B, R4-17A, R4-17B)	Scintillation counter (Nal)	10 to $1 \times 10^6$ cpm	$4.4 \times 10^3$ cpm
Waste Disposal System Liquid Effluent (R-18)	Photomultiplier tube scintillation crystal (Nal)	0 to $1 \times 10^6$ cpm	$2.8 \times 10^4$ cpm
Steam Generator Liquid Sample Monitors (R3-19, R4-19)	Photomultiplier tube scintillation crystal (Nal)	10 to $1 \times 10^6$ cpm	$4 \times 10^3$ cpm



TABLE 3-2

**PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT**

<u>MONITOR</u>	<u>TYPE</u>	<u>MEASUREMENT</u>	<u>SETPOINT SETTINGS</u>
Reactor Coolant Letdown Line Activity Monitors (R3-20 R4-20)	GM Tube Thin Wall	0 to $1 \times 10^5$ mR/hr	$5 \times 10^2$ mR/hr
System Level, Particulate Iodine Noble Gas Monitors (SPING)	Alpha/Beta scintillation crystal, photomultiplier tube scintillation crystal (NaI) Beta-gamma GM Tube	$10^{-7}$ to $10^5$ uci/cc	Varies with detector and channel.



TABLE 3-3

## AREA RADIATION MONITORS

This system consists of channels which monitor radiation levels in various areas. These areas are as follows:

DETECTOR TAG. NO.	CHANNEL NUMBER	AREA MONITOR*	TYPICAL ALARM SETPOINT SETTINGS (mR/hr)
RD-1401	1	Personnel Air Lock-Unit 3	100
RD-1402	2	Fuel Manipulator Crane-Unit 3	150
RD-1403	3	Incore Detector Seal Table-Unit 3	150
RD-1404	4	Personnel Air Lock-Unit 4	100
RD-1405	5	Fuel Manipulator Crane-Unit 4	150
RD-1406	6	Incore Instrumentation-Unit 4	100
RD-1407	7	Spent Fuel Pit Transfer Canal-Unit 3	40
RD-1408	8	Spent Fuel Pit Transfer Canal-Unit 4	40
RD-1409	9	Tank & Pump Room	10
RD-1410	10	Chemical Storage Area	40
RD-1411	11	Cask Wash Area-Unit 4	10
RD-1412	12	Cask Wash Area-Unit 3	10
RD-1413	13	Sample Room-Unit 3	10
RD-1414	14	Sample Room-Unit 4	10
RD-1415	15	North End of North/South Corridor	5
RD-1416	16	South End of North/South Corridor	5
RD-1417	17	East End of East/West Corridor	5
RD-1418	18	West End of East/West Corridor	5
RD-1419	19	Spent Fuel Pit Exhaust-Unit 3	15
RD-1420	20	Control Room	1
RD-1421	21	Spent Fuel Pit North wall-Unit 3	5
RD-1422	22	Spent Fuel Pit South wall-Unit 4	5
RD-1423	23	New Fuel Room-Unit 3	20
RD-1424	24	New Fuel Room-Unit 4	20

\* The monitors all have a range of  $10^{-1}$  to  $10^7$  mr/hr, ( $10^{-4}$  to  $10^4$  R/hr).

CONTAINMENT HIGH RANGE RADIATION MONITORS (CHRRM)

	<u>RANGE</u>	<u>ALARM SETPOINTS</u>
RI-6311A GM Tube	1 to $1 \times 10^8$ R/hr	High $1.3 \times 10^4$ R/hr, High High $1.3 \times 10^5$ R/hr
RI-6311B GM Tube	1 to $1 \times 10^8$ R/hr	High $1.3 \times 10^4$ R/hr, High High $1.3 \times 10^5$ R/hr

Typical Alarm Setpoint: Actual Alarms based on plant conditions and may vary from those indicated.

TABLE 3-4  
**NON-RADIOLOGICAL INSTRUMENTATION USED FOR  
 ACCIDENT ASSESSMENT**

<u>INSTRUMENTATION</u>	<u>RANGE</u>	<u>NORMAL RANGE</u>
Charging Flow (FI-*-122)	0-150 GPM	35 - 95 GPM
Letdown Flow (FI-*-150)	0-150 GPM	45 - 120 GPM
V.C.T. Level (LI-*-115)	0-100%	16 - 50%
R.C.S. Flow (FI-*-414, 415, 416, 424, 425, 426, 434, 435, 436)	0-120%	95 - 104%  (Hot S/D to Full Power)
R.C.S. T-hot (TR-*-413)	0-750°F	545 - 605°F
R.C.S. T-cold (TR-*-410)	0 - 750°F	545 - 550°F
Safety Tailpipe Temperature (TI-*-465, 467, 469)	50 - 400°F	70 - 170°F
Power Operated Relief Tailpipe Temperature (TI-*-463)	50 - 400°F	70 - 230°F
R.C.S. T-avg (TI-*-412, 422, 432 for protection and TI-*-411, 421, 431 for control)	540 - 610°F	547 - 574.2°F
Pressurizer Temperature, both vapor and liquid. (TI-*-454, 453)	0 - 700°F	650 - 654°F



TABLE 3-4

**NON-RADIOLOGICAL INSTRUMENTATION USED FOR  
ACCIDENT ASSESSMENT (cont.)**

<u>INSTRUMENTATION</u>	<u>RANGE</u>	<u>NORMAL RANGE</u>
Pressurizer Pressure narrow  Protection: PT-455, 456, 457 Control: PT-444, PT 445  Range (PT-*-455, 456, 457 for protection and PT-*-444, 445 for control)	1500 - 2500 psig	2205-2254 psig (control at 2235 psig)
Pressurizer Pressure Wide Range (PT-*-403, 404, 405, 406)	0 - 3000 psig	2205 - 2265 psig
Pressurizer Level (LT-*-459, 460, 461)	0 - 100%	22.2 - 53.3%
Steam Generator Level Narrow Range 474, 475 (LT-*-476, 478, 484, 485, 486, 488, 494, 495, 496, 498)	0 - 100%	40 - 60%
Steam Generator Level Wide Range (LR-*-477)	0 - 100%	62 - 68%
Steam Generator Steam Flow (FT-*- 474, 475, 484, 485, 494, 495)	0 - 4 X 10 <sup>6</sup> lbs/hr	0.5 - 3.3 X 10 <sup>6</sup> lbs/hr
Steam Generator Feed Flow (FT-*-476 477, 486, 487, 496, 497)	0 - 4 X 10 <sup>6</sup> lbs/hr	0.5 - 3.3 X 10 <sup>6</sup> lbs/hr





TABLE 3-4

**NON-RADIOLOGICAL INSTRUMENTATION USED FOR  
ACCIDENT ASSESSMENT (cont.)**

<u>INSTRUMENTATION</u>	<u>RANGE</u>	<u>NORMAL RANGE</u>
Steam Generator Pressure (PT-*-474, 475, 476, 484, 485, 486, 494, 495, 496) and Steam Header Pressure (PT-*-464, 466, 468)	0 - 1400 psig	770 - 1085 psig
R.H.R. Flow (when in use) (FT-*-605)	0 - 8500 GPM	3500 - 5000 psig
H.H. Safety Injection Flow (FI-*-943)	0 - 1000 GPM	Not Applicable
H.H. Safety Injection Pressure (Pi-*-943)	0 - 2000 psig	1200 - 1400 psig
QSPDS (located at RCO desk and on VPB)	Inputs allow measurement of subcooling margin, Rx core temperatures and Rx vessel water levels.	
Containment Pressure Narrow Range (PT-*-6325 A, B)	-6 psi to +18 psi	-3"H <sub>2</sub> O to 20" H <sub>2</sub> O
Containment Pressure Wide Range (PT-*-6306 A, B)	0 - 180 psig	0 - 2 psig
Containment Temperature (R-*-1413)	0 - 300°F	70 - 130°F
Containment Sump Level Range (R-*-1418)	0 - 300 gal.	57 - 266 gal.
Containment Sump Level Wide Range Tag # (LT-6308 A, B)	0 - 400"	6 - 28"

TABLE 3-4

**NON-RADIOLOGICAL INSTRUMENTATION USED FOR  
ACCIDENT ASSESSMENT (cont.)**

<u>INSTRUMENTATION</u>	<u>RANGE</u>	<u>NORMAL RANGE</u>
Containment Level Wide Range Tag# (LT-6309 A, B)	0 - 100"	0
Auxiliary Feed Water Flow (FI-*-1401A, 1401B, 1457A, 1457B, 1458A, 1458B)	0 - 300 GPM	Not Applicable
R.W.S.T. Level (LT-*- 6583 A, B)	0 - 330,000 gal.	320,000 - 330,000 gal.
4kV Bus Volt Meters	0 - 5250 volts	3950 - 4350 volts
4kV Bus Current Meters	0 - 4000 amps	0 - 3500 amps
DC Bus Volt Meters	0 - 200 volts	128 - 132 volts
T.E.C. Safety Acoustic Monitor Tag # ZT-6303 A, B, C	(Alarms when indication of Safety lifting is required)	



## 4. NOTIFICATION AND COMMUNICATION

This section describes the procedures and methods established for initial notification and follow-up communications within Florida Power & Light Company, and from Florida Power & Light Company to the appropriate state, county, and federal response organizations. Section 4.6, Communications Equipment, describes the referenced systems in more detail. Figure 4-1 shows the initial notification flow. Table 4-1 presents the organizational titles and alternates for the primary response organizations communications links.

### 4.1 FPL Emergency Response Organization

The FPL Emergency Coordinator or Recovery Manager acting in accordance with emergency plan implementing procedures has the responsibility for making the necessary notifications and communications, and for determining the content of the notification. However, actual contacts may be made by designated communications assistants. The use of the phrase "Emergency Coordinator" below is also defined as "Emergency Coordinator or his designee," except for those items described in Section 2.2.2.1 which cannot be delegated.

Once the EOF is declared operational, the Recovery Manager assumes the responsibility for notification to offsite governmental agencies.

#### 4.1.1 Initial Notification

Florida Power & Light Company emergency procedures call for the following actions for initial notification within the FPL organization.

Personnel detecting a potentially significant off-normal event or condition should report it to the Nuclear Plant Supervisor by the fastest means available. This may mean face-to-face communication, the Plant Public Address system, or the commercial (Bell) telephone system. These systems provide adequate means of redundancy for this initial notification.

- 1) Nature of off-normal event.
- 2) Extent of damage to equipment.
- 3) Location of event.
- 4) Personnel injuries.
- 5) Name of individual reporting the event.

The Nuclear Plant Supervisor directs the investigative actions to address the off-normal event. After investigation, he classifies the event and if it is determined to be an Unusual Event, Alert, a Site Area Emergency, or a General Emergency, implements this Emergency Plan and becomes the Emergency Coordinator.



If necessary, the Emergency Coordinator notifies plant personnel of the emergency situation and any required protective actions by the Plant Public Address system. To activate the FPL Corporate Emergency Organization, the Emergency Coordinator notifies the Emergency Control Officer by the most readily available communications systems.

The Emergency Coordinator will relay his information to the Emergency Control Officer (ECO), or to the Nuclear Division Duty Officer (NDDO) if the ECO or his alternates cannot be reached. The ECO (or NDDO) notifies appropriate corporate response personnel by commercial telephone. If necessary, notification from the Emergency Coordinator to the ECO (or NDDO) can be accomplished via the Systems Operation Power Coordinator.

The Emergency Coordinator provides the following information to the ECO to the extent possible:

- o Type of accident or incident.
- o Affected unit.
- o Assessment of the emergency condition (including the class of emergency).
- o Information on personnel injuries; and an estimate of personnel radiation exposures.
- o Offsite support already called in and/or required.
- o An estimate of the magnitude of a radioactive material release and the area possibly affected.
- o Actions already taken or recommended with respect to the evacuation of various onsite areas.
- o Wind speed and direction; wind direction range (degrees) over the previous 15 min.
- o Assessment of potential radiation exposure to persons offsite and any protective actions for offsite areas recommended.

#### 4.1.2 Communications

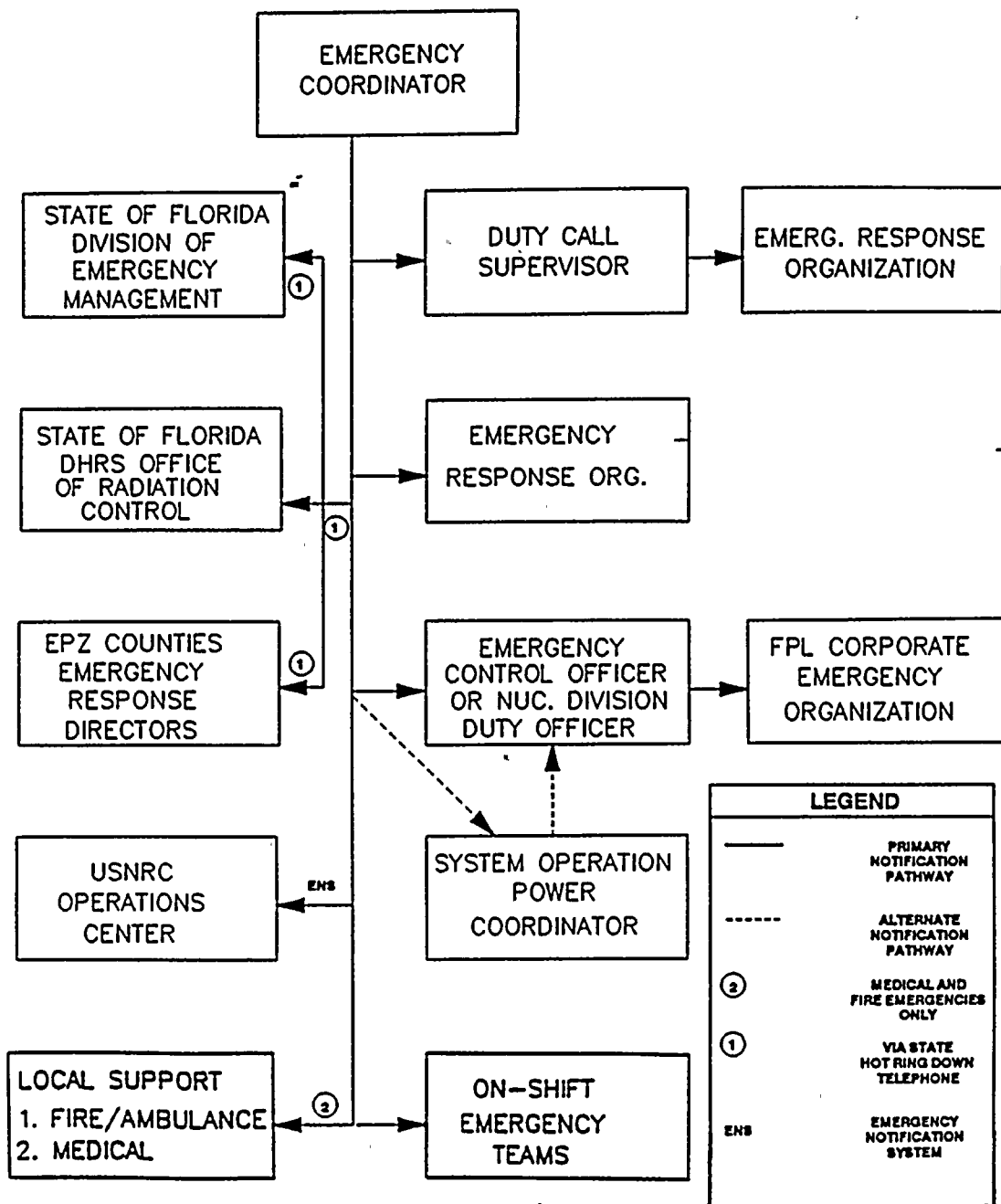
Initially, communications between the Emergency Coordinator (in the Control Room) and the FPL Corporate Emergency Organization are by telephone, with radio as the backup.

When the Emergency Operations Facility is activated, communications within the FPL Emergency Organization are accomplished primarily using commercial phones.





**FIGURE 4-1**  
**INITIAL NOTIFICATION**



Follow-up messages regarding the prognosis for worsening or terminating of the event as well as requests for onsite support by offsite organizations will be made periodically and as needed by the EC to the RM. Recommendations for offsite protective measures to DEM may be included as part of follow-up messages.

#### 4.2 State Agencies

State of Florida notification and communications procedures are presented in Appendix A.

##### 4.2.1 Division of Emergency Management

###### Initial Notification

FPL's Emergency Coordinator will make initial notification within approximately 15 minutes of declaring any emergency to the Division of Emergency Management via the Hot Ring Down Telephone System to the State Warning Point Duty Officer at the State Warning Point in Tallahassee. NAWAS and commercial telephone serve as the backup systems for initial notification. Backup phone numbers for 24-hour per day notification are provided by procedure.

Information to be communicated to DEM during the initial notification is shown in the State of Florida Notification Message Form, Table 4-2. The listed information will be provided to the extent possible at the time of notification. Information that should be included in follow-up messages is also shown in Table 4-2. The follow-up message may come from the TSC staff, if it is operational, or the EOF, if it is operational.

The initial notification may be brief with certain information not available. Follow-up messages from the Emergency Coordinator to the Division of Emergency Management (DEM) will include the required information as it becomes available.

The Division of Emergency Management (DEM) has established a procedure to authenticate emergency notification from the Turkey Point Plant. The Hot Ring Down system is a restricted circuit under control of DEM and local government. Its use is self-authenticating.

###### Communications

The Emergency Coordinator will maintain periodic contact with the State Warning Point, located at the State EOC in Tallahassee, via the Hot Ring Down network.



TABLE 4-1

**COMMUNICATIONS RESPONSIBILITIES**

The following positions are responsible for manning communication links among the listed organizations:

**1) FPL Onsite Emergency Response Organization**

Primary: Emergency Coordinator

1. NPS
2. Alternate as defined by plan and procedure.

Alternate: Designated Communicator (from available plant operating and technical staff).

**2) FPL Corporate Emergency Response Organization**

Primary: Recovery Manager

1. Vice President - Turkey Point-Nuclear
2. Alternate as defined by Plan and procedure.

Alternate: Designated Communicator (from available management or technical staff).

**3) Florida Division of Emergency Management State Emergency Operations Center, Tallahassee**

Primary: Chief of Operations, DEM

Alternate: As described in Annex E of the State Plan

**4) Metropolitan Dade County Emergency Operations Center, Miami**

Primary: Dade County Office of Emergency Management Director

Alternate: As described in Section V, Annex Q of the State Plan

**5) Monroe County Emergency Operations Center**

Primary: Monroe County Office of Civil Defense Director

Alternate: As described in Section V, Annex Q of the State Plan

STATE OF FLORIDA  
STATE OF FLORIDA NOTIFICATION MESSAGE FORM  
NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE  
 A. CRYSTAL RIVER UNIT 3  
 B. ST. LUCIE UNIT 1  
 C. ST. LUCIE UNIT 2  
 D. TURKEY POINT UNIT 3  
 E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION  
 A. NOTIFICATION OF UNUSUAL EVENT  
 B. ALERT  
 C. SITE AREA EMERGENCY  
 D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION OR UPDATE \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ 8. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11, OTHERWISE CONTINUE WITH REST OF FORM.)  
 A. NO RELEASE  
 B. POTENTIAL (POSSIBLE) RELEASE  
 C. RELEASE IS OCCURRING - EXPECTED DURATION \_\_\_\_\_  
 D. RELEASED OCCURRED, BUT STOPPED - DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CO-137)
9. RELEASE RATE:  

NOBLE GASES DEFAULT (A) _____ CURIES PER SECOND MEASURED (B) _____ CURIES PER SECOND	IODINES (C) _____ CURIES PER SECOND (D) _____ CURIES PER SECOND
--	---
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:  

DISTANCE	THYROID (MREM/HR)	WHOLE BODY (MREM/HR)
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS);  
 A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION  
 B. SECTORS AFFECTED \_\_\_\_\_  
 C. WIND SPEED \_\_\_\_\_ MPH  
 D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:  
 A. NO RECOMMENDATIONS AT THIS TIME.  
 B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
 (NOTE: IF MESSAGES REFER TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)  

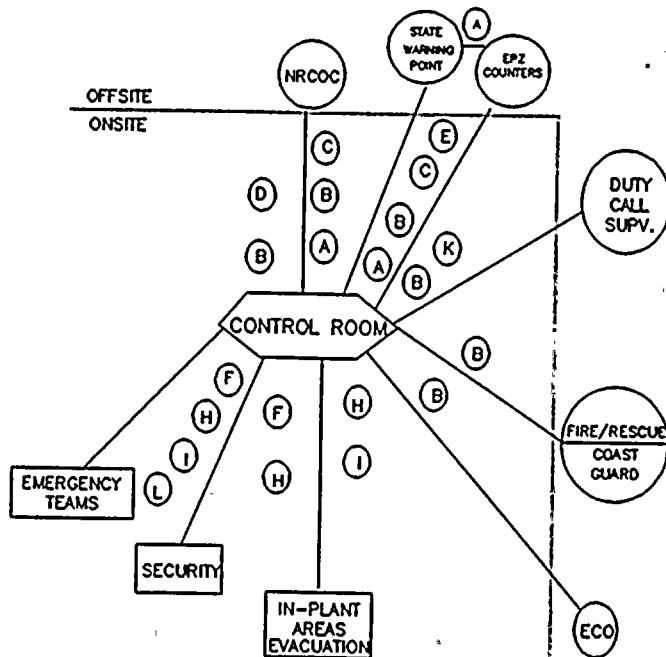
MILES	NO ACTION	SHELTER/SECTORS	EVACUATE/SECTORS
0-2	_____	_____	_____
2-5	_____	_____	_____
5-10	_____	_____	_____
10-	_____	_____	_____
13. EVENT TERMINATED: A. NO \_\_\_\_\_ B. YES \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_



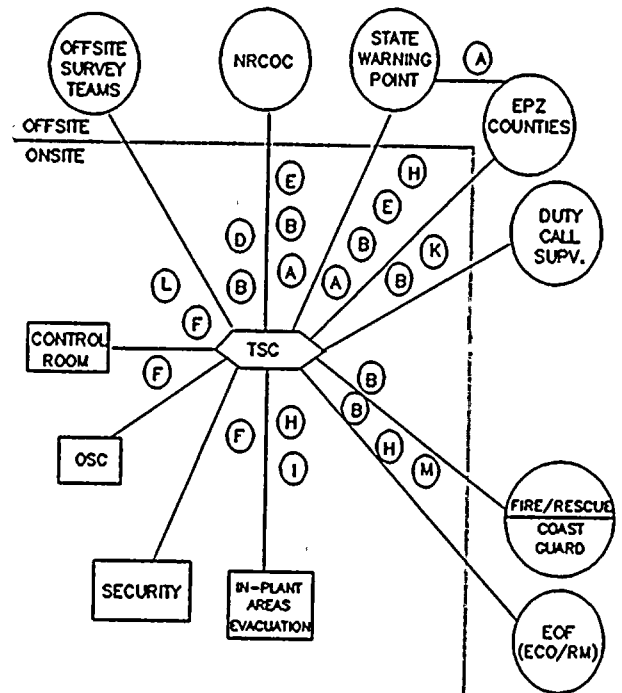
FIGURE 4-2

# COMMUNICATIONS INTERFACES

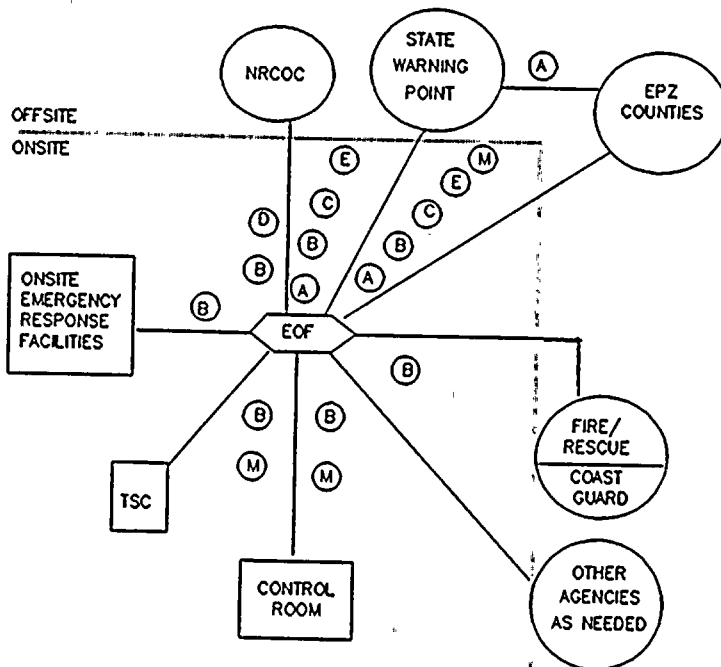
## CONTROL ROOM (PRIOR TO TSC ACTIVATION)



## TECHNICAL SUPPORT CENTER



## EMERGENCY OPERATIONS FACILITY



LEGEND	
(A)	HOT RING DOWN TELEPHONE
(B)	COMMERCIAL TELEPHONE
(C)	NAWAS
(D)	EMERGENCY NOTIFICATION SYSTEM (ENS)
(E)	LOCAL GOVERNMENT RADIO (LGR)
(F)	PLANT BELL EXTENSION
(H)	PA SYSTEM
(I)	ALARMS
(K)	PAGER
(L)	HAND HELD RADIOS
(M)	COMPANY RADIOS





FPL responsibility for communication with offsite agencies is transferred from the Emergency Coordinator to the Recovery Manager when he declares the EOF operational.

#### 4.2.2 Department of Health and Rehabilitative Services

##### Initial Notification

The Division of Emergency Management (DEM) Duty Warning Point Duty Officer is responsible for notifying the Department of Health and Rehabilitative Services (DHRS). Notification is made to the Public Health Physicist and the Administrator, Office of Radiation Control. If required, the Public Health Physicist activates the Miami Field Team, the DHRS's Radiological Emergency Team and the Mobile Emergency Radiological Laboratory (MERL).

##### Communications

The Public Health Physicist maintains contact with the Division of Emergency Management (DEM) via vehicle radio as he travels to the FPL Emergency Operations Facility. Contact is maintained with the Mobile Emergency Radiological Laboratory (MERL) by the Division of Emergency Management (DEM) via Local Government Radio while the MERL is in transit. On arrival, commercial phones are available also.

The State Plan describes provisions for communications between the EOC and State offsite radiological monitoring teams. Annexes F and Q describe communications for field assessment teams.

#### 4.3 Metropolitan Dade County Office of Emergency Management Director and Monroe County Office of Civil Defense

##### Initial Notification

The County Emergency Response Directors are initially notified (within 15 minutes) simultaneously via the same Hot Ring Down communication used to notify the Division of Emergency Management for all four emergency classes. The Hot Ring Down System is manned on a 24-hour basis by the Dade County Department of Public Safety. The Emergency Management Directors can then be reached by telephone or by dispatching a patrol car. Also, the State Warning Point Duty Officer at the Division of Emergency Management Warning Point is responsible for confirming the receipt of emergency notice by the County Emergency Management and Civil Defense Directors. He is also responsible for verifying the message from the Plant by a call back procedure and informing the County Directors that the message has been verified. Backup phone numbers for 24 hour per day notification are provided by procedure. Follow-up messages concerning the emergency may come from the TSC staff or the EOF. Information that should be contained in these messages is shown in Table 4-2.

## Communication

The Dade County Emergency Management Director proceeds to the Dade County Emergency Operations Center and uses the communication channels available there. These include Hot Ring Down, NAWAS, RACES, Local Government Radio, teletype, police and fire networks, and telephone.

The Monroe County Civil Defense Director proceeds to the Emergency Operations Center and uses the communications channels available there. These include HRD, NAWAS, RACES, Local Government Radio, teletype, police, and fire networks, facsimile, and commercial telephone.

### 4.4 Federal Agencies

#### 4.4.1 U. S. Nuclear Regulatory Commission

##### Initial Notification

The NRC Operations Center in Bethesda, MD is notified of all radiological emergencies via the Emergency Notification System from the Control Room. The notifications are made in accordance with Federal Regulations and plant procedures. The Emergency Coordinator or his designee completes this contact within one hour of the declaration of an emergency. Alternate commercial phone numbers are provided by procedure.

##### Communications

Communications with the NRC may be handled by telephone from the Control Room, the TSC (if activated), and the EOF (if activated).

#### 4.4.2 U. S. Coast Guard

Assistance from the Coast Guard for onsite rescue activities can be requested by telephone call from the Emergency Coordinator or his designee or the Recovery Manager or his designee to the Coast Guard Duty Officer.

### 4.5 Notification of the Public by the State/County

The Florida Radiological Emergency Management Plan for Nuclear Power Plants defines the state and county procedures for notifying the public in the event of an emergency. Section 5 describes further provisions.

### 4.6 Communications Equipment

The various communications systems previously discussed are described in more detail below.

This communications network incorporates all telephones, the plant public address system, fixed and mobile radio systems, and radio "beepers" employed for routine plant operation and other normal Company business. In addition, the communication systems of State and County agencies and other organizations with which the Company has emergency assistance agreements will be used to implement emergency activities.

#### Plant Page System

The plant page system, with speakers strategically located throughout the Protected Area, provides for the transmission of warning and instructions in event of an emergency.

A solid state plant page system is powered from a preferred 120V AC circuit. An alternate power supply is provided.

The plant page system uses noise cancelling dynamic microphone type handsets located throughout the plant. The system includes one paging channel and one party line channel.

The plant page system at Units 3 and 4 is completely independent of the system at Units 1 and 2. Notification by phone to the Unit 1 and 2 Control Room (by the Unit 3 & 4 Control Room) enables fossil plant employees to be advised of actions to take as a result of events occurring at the nuclear site.

#### Motor Maintenance Circuit

This is a communications circuit, separate from the Plant Page System, but using 120V AC power from the Plant Page System power supply source. The circuit consists of various outlets throughout the plant, near major equipment both inside and outside the containment and at the fuel handling areas, into which a headset with a microphone can be plugged, to enable communication to be carried on while leaving the operator's hands free. Outlets for this circuit are also provided in the Control Room of Units 3 and 4 so that communications between the Control Room and outlying stations can be established.

#### FPL Intelligent Tandem Network (ITN) System

Telephones in most FPL locations may access the Intelligent Tandem Network (ITN) telephone system. Through the ITN and its associated "Uniform Dialing Plan," other company office locations may be directly dialed, WATS line may be accessed, and local telephone calls may be placed. This system uses a combination of Bell telephones and FPL telephones, depending upon office location.

### Portable Radio Transceiver Sets

Various portable radio receivers (walkie-talkies) are available to supplement the fixed communications equipment in the plant. These radios are lightweight battery operated units which may be easily carried by personnel to any location on the plant site. Some of these portable radios are capable of communicating with the FM radio transceiver over a range of several miles.

### Radio Paging System

Telephones in the Miami Area inter-office dial system are interconnected to the Radio Paging System. This system is capable of reaching beepers in Dade, Broward, Palm Beach, St. Lucie, and Martin Counties. Beepers are regularly assigned to key personnel in the Corporate Emergency Organization as shown on the Corporate Emergency Response Directory, and additional beepers can be quickly assigned if required in an emergency. A beeper is also assigned to the Duty Call Supervisor. Assignment of beepers is shown in the Emergency Response Directory.

### Company Radio System

The Company radio system consists of fixed base UHF and VHF radio equipment in the System Operations Power Coordinator's office, trouble dispatcher offices, service centers, and power plants.

In the event of interruption of electric service to the base radio stations, back up power is available to the equipment.

Transceivers are located in the Control Building Elevator vestibule. The operating set and battery back up units for these radios are located in the Unit 3 and 4 Control Room, TSC, and other onsite locations. These radios will provide backup communications between the Turkey Point Plant, Systems Operations Office, EOF, and Juno Beach office. The System Operations Office has direct telephone lines and either direct, patch, or indirect radio contact with all plants, radio-equipped vehicles and service centers in the Florida Power & Light Company system.

### State Hot Ring Down Telephone

The State Hot Ring Down telephone is installed in the Control Room TSC, and EOF. This system uses dedicated commercial telephone lines and is activated through pre-designated two-digit access "telephone numbers." The initial notification of an emergency is made via this system to the State Division of Emergency Management (State Warning Point-Tallahassee) and the County Emergency Response Directors. NAWAS serves as backup.

### National Warning System (NAWAS)

The NAWAS is installed in the Control Room and the EOF. This system uses commercial dedicated telephone lines. The initial notification of all emergencies to the State Division of Emergency Management (DEM) and the county Emergency Response Directors will be made via the Hot Ring Down telephone using NAWAS as alternate. Additional phone numbers are listed in procedures if Hot Ring Down and NAWAS are inoperable.

### Local Government Radio (LGR) System

The LGR System is installed in the Control Room, TSC, and EOF. This system, which operates on frequencies allocated in the State Division of Emergency Management (DEM), should be used to maintain communications with the DEM, the State Department of Health and Rehabilitative Services (DHRS) Mobile Emergency Radiological Laboratory (MERL), and the county Emergency Response Directors.

### Emergency Notification System (ENS)

The ENS is installed in the NRC Resident Inspector's office, the Control Room, the TSC, and the EOF. The ENS utilizes the FTS-2000 network that is designed to facilitate notifications to the NRC.

## 4.7 Testing

As discussed in Section 7.1, Exercises and Drills, communication equipment and procedures will be tested periodically as part of the FPL program of exercises and drills for maintaining emergency preparedness.

## 5. RESPONSE TO ACCIDENT CONDITIONS

Table 3-1 identifies a spectrum of off-normal events and classifies those events into four categories. The classification is based on Emergency Action Levels which are related to the instrument readings, and/or observations, of plant conditions as shown in the tables. This section discusses the assessment of and response to these events.

### 5.1 Accident Assessment

Once an off-normal event has been detected and classified in accordance with the Emergency Action Levels, a process of continuing assessment will be initiated. System instruments and procedures which would be used, as appropriate, in the assessment process are described below. Specifications of instrumentation utilized for accident assessment are contained in procedures. Post accident sampling capabilities are also described in procedures.

#### 5.1.1 Plant Release Pathways

The Turkey Point Plant is provided with systems for measuring radioactivity at potential effluent release points and within the primary containment buildings (See Table 3-2). The principal release point is the plant vent. The following systems may be sources of radiological effluent:

- o Containment purge system (both containments).
- o Gas decay tanks.
- o Auxiliary building ventilation system.
- o Unit 4 spent fuel pit ventilation.
- o Rad-waste building ventilation system.
- o Laundry facility ventilation system.

The plant vent monitor readings are available in the Control Room. In addition to the noble gas monitor(s), cartridges for analysis of particulates and iodine are included in the plant vent radiation monitoring system. These cartridges would be removed and analyzed using a multichannel analyzer.

The Unit 3 spent fuel pit area is separately vented. The exhaust flow is monitored for noble gases, particulates, and iodine. Noble gas monitors provide continuous indication of concentration. Special cartridges provided as part of the system are removed for multichannel analyses to determine particulate and iodine emissions.

The steam jet air ejector exhaust systems are provided with gross radioactivity monitors. These monitors would provide early indication of primary to secondary leakage.

The steam dump/safety exhausts are monitored for gross radioactivity. Particulate and iodine concentrations will be determined by analysis of grab samples from the main steam sample lines.

Steam generator blowdowns are monitored for gross activity. Continuous readout is provided in the Control Room.

In addition to these effluent monitors, the plant is provided with an area radiation monitoring system (See Table 3-3). This monitoring system employs detectors distributed throughout the plant and detector indicators are provided locally and in the Control Room. The area radiation system provides early indication of a release of radioactivity within the plant.

Also, the plant has a system of fire detectors with appropriate alarms in the Control Room to provide warning of a fire emergency.

#### 5.1.2 Onsite Sampling Resources

Both containment atmosphere and reactor coolant can be analyzed "on line" during an accident by utilizing the post accident sampling system.

The capability is available at the Turkey Point Plant to obtain grab samples of the reactor containment atmosphere and the reactor coolant.

To obtain grab samples of the containment atmosphere following an accident, a special removable gas sampling vessel is used in the existing containment sampling system. The removable vessel would be transported in a shielded container to a laboratory offsite with specialized material handling capabilities. At the laboratory, a portion of the gas would be drawn from the vessel, and the radioisotopic content determined by appropriate analytical

techniques. Plant procedures provide instructions for sample acquisition and on-line analysis. Transportation capability exists by prearranged letter of agreement between FPL and one of its vendors.





Reactor coolant grab samples can be taken within a shielded container and transported to a laboratory offsite with specialized material handling capabilities following an accident. Dedicated sample lines are installed which route a reactor coolant sample to an accessible, low background area. The sample lines are shielded to reduce the radiation exposure. Mechanical manipulators and a cart mounted shield are used to collect the sample and transport it to the laboratory. The coolant sample is analyzed for pH, boron, and radioactivity. Instructions on sample acquisition and on-line analysis are included in plant procedures.

Air samples will be collected using portable air samplers in accordance with a plant procedure. Portable air samplers are located such that time required to obtain results is minimized for critically manned areas (e.g., Control Room, Technical Support Center). Silver zeolite sample cartridges are stored onsite. To preclude interferences by noble gas adsorption, only silver zeolite cartridges will initially be used to sample critically manned areas (e.g., Control Room, Technical Support Center, other areas which require personnel to be present). Collected samples will be transported promptly to the lab. If necessary, an alternate location will be established using portable equipment in a low background area outside the Radiation Controlled Area.

Samples are to be analyzed in accordance with approved procedures.

#### 5.1.3 Meteorological Systems

Meteorological data is required to make estimates of offsite radiation exposure in the event of a release of gaseous radioactivity. Measurement of three meteorological parameters are required to make estimates of atmospheric dispersion, an essential part of a radiation exposure calculation. The parameters are wind speed, wind direction, and a measure of atmospheric stability.

Meteorological data is collected at the Turkey Point Land Management Site 10 meter tower (2 miles southwest), the South Dade site 60 meter tower (7 miles southwest) or obtained directly from National Oceanic and Atmospheric Administration (NOAA) Headquarters in Coral Gables. Table 5-1 summarizes the available data. Data which represents primary and backup sources are summarized on Table 5-2.

As indicated in Table 5-1, values of the key meteorological parameters are provided for the Turkey Point Plant and South Dade Site meteorological installations. These readouts are provided continuously and the data is directly available at the Control Room Technical Support Center (TSC) and the Emergency Operations Facility (EOF) via Emergency Response Data Acquisition and Display System (ERDADS).

Meteorological data is provided to the State via initial and follow-up communications utilizing Table 4-2 as well as response to direct inquiries from DEM and DHRS. The EOF and NRC can receive timely meteorological information through the TSC, upon request.

#### 5.1.4 Source Term and Release Determination

As discussed in Section 5.1.3 certain meteorological parameters are required for the calculation of offsite radiation exposure from airborne releases. Additional essential pieces of information are the rate of release and isotopic composition of the released radioactivity. If radioactivity were released from a monitored vent, then a direct measure of the release rate would be available. Monitored release points are discussed in Section 5.1.1. Based upon certain assumptions, release rate can be determined using EPIP-20126, "Offsite Dose Calculations" for all monitored release points and grab samples.

In event of a loss of coolant accident, the containment radiation monitors would provide the first indication of the magnitude or existence of radioactivity in the containment. These monitors can be used to determine the concentration of radionuclides based upon the isotopic mixes assumed for the accident described in the FSAR. Additional information about the isotopic composition of the airborne radioactivity would be derived from isotopic analysis of a containment atmosphere sample.

Procedures have been developed to assist the plant staff in estimating release rates and isotopic content for releases from the plant vent.

#### 5.1.5 Exposure and Dose Rate Determination

One of the uses of radiation monitors and meteorological instrumentation is the estimation of offsite radiation exposures. An estimate of doses is needed so that responsible governmental agencies can use this information to plan protective action.

EPIP-20126 "Offsite Dose Calculations" provides the details of how initial dose estimates are determined. In particular, current meteorological data, process monitor data, and containment high range radiation monitor readings are used in conjunction with tables for estimating doses under actual conditions. Dose calculations will be updated periodically during the course of the accident and the result will be provided to state and county authorities for their use in evaluating the need for protective action. Figure 5-1 presents the protective action guides to be used for making recommendations. These are consistent with NUREG-0654 and EPA P.A.G.'s. Initial dose calculations are performed by the chemistry representative who is dispatched to the Control Room at the onset of the accident. Refined dose estimates would be prepared by the Chemistry Department personnel reporting to the TSC using available tables and/or an interactive computer



program which presents results and pre-determined recommendations in a tabular format. Default values based on the FSAR have been established and can be utilized if assessment instrumentation is not available (offscale or inoperable) and field sample analysis has not yet been completed.

#### 5.1.6 Offsite Monitoring

##### Dosimetry

The Florida Department of Health and Rehabilitative Services maintains a system of approximately 35 TLD stations in the vicinity of Turkey Point Plant. Stations are provided in each 22.5° land sector at the 1-mile (approximate), 5-mile (approximate), and 10-mile (approximate) radii. At the 10-mile radius, stations are located with special emphasis on the more densely populated area.

##### Laboratories and Sampling

Laboratory facilities are provided as discussed in Section 2.3.2. The plant's onsite radiological laboratory serves as the primary facility with backup provided by: 1) the Health Physics counting room facilities; 2) St. Lucie Plant Radiological facilities; 3) the State of Florida's Mobile Emergency Radiological Laboratory. Analysis of offsite environmental samples will be performed at the state's Mobile Emergency Radiological Laboratory. This mobile lab can be in position near the site within six to eight hours of notification. A DHRS representative dispatched to the EOF will coordinate all state offsite field monitoring data and sample media.



TABLE 5-1

**SUMMARY OF AVAILABLE METEOROLOGICAL DATA**

<u>SOURCE</u>	<u>DATA</u>	<u>DISPLAY</u>
Turkey Point Land Management 10-meter tower	Wind Speed Wind Direction Sigma-Theta	ERDADS Strip chart record
South Dade Site 60 meter tower	Delta T (60-10m) Wind Speed Wind Direction	ERDADS Strip chart records
NOAA/NWS Forecast Center in Coral Gables for Turkey Point Nuclear Plant Lat. 25° • 26' • 04" N Long. 80° • 19' • 52" W	Wind Speed Wind Direction Cloud Cover Ceiling Height Air Temperature	None; via telephone



TABLE 5-2

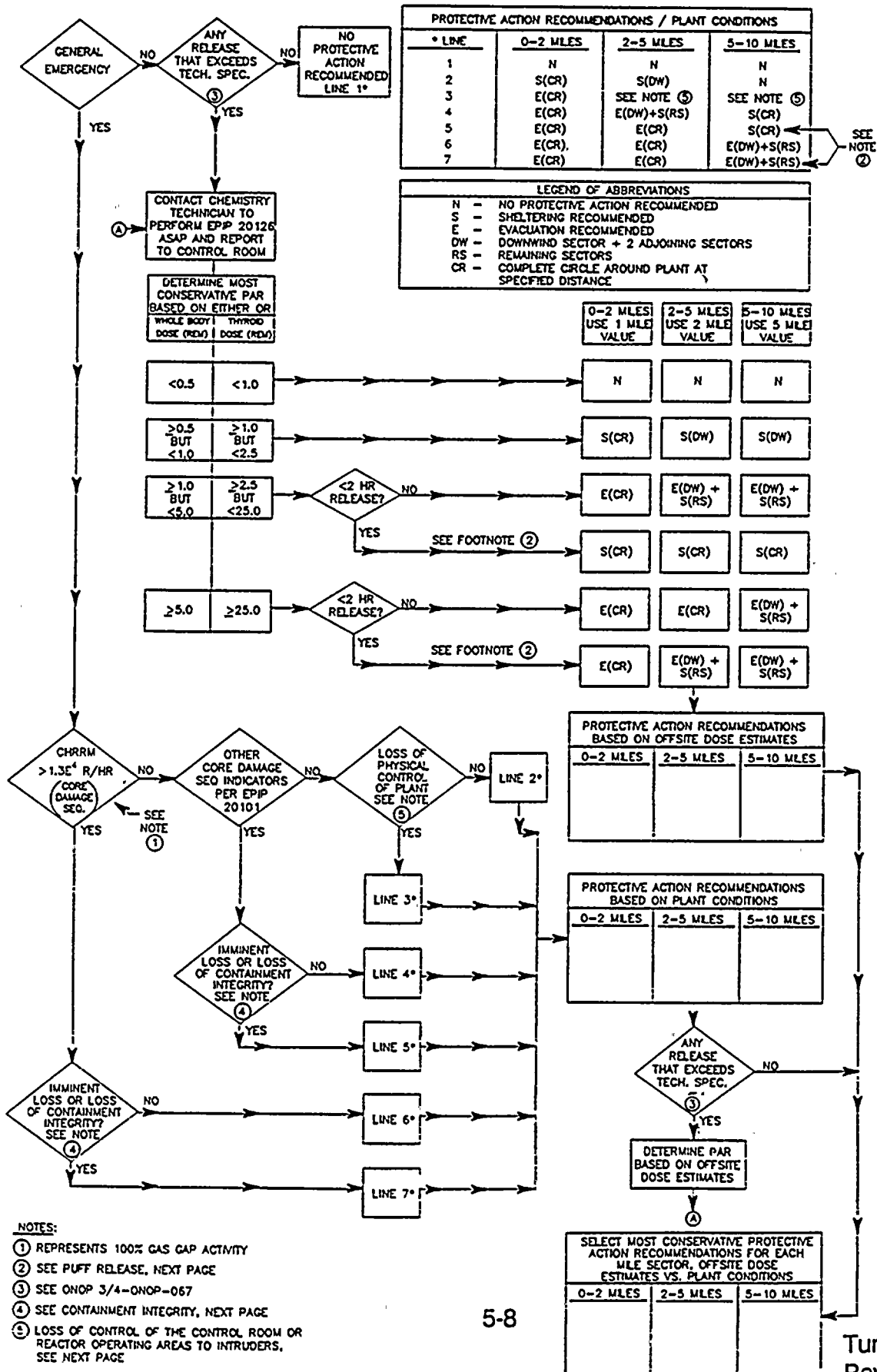
**SOURCES OF METEOROLOGICAL DATA**

<u>METEOROLOGICAL PARAMETER</u>	<u>PRIMARY SOURCE</u>	<u>FIRST BACKUP</u>	<u>SECOND BACKUP</u>	
Atmospheric Stability	Delta T (South Dade Site Tower)	Sigma-Theta (Turkey Point Land Manage- ment Tower)	Surface Observations  NOAA	!
Wind Speed	Turkey Point Land Management Tower	South Dade Site Tower	NOAA	!
Wind Direction	Turkey Point Land Management Tower	South Dade Site Tower	NOAA	!



FIGURE 5-1

# PROTECTIVE ACTION RECOMMENDATIONS BASED ON PLANT CONDITIONS AND OFFSITE DOSE ESTIMATES



## PROTECTIVE ACTION RECOMMENDATIONS BASED ON PLANT CONDITIONS

If a "PUFF" type release is imminent or in progress as indicated by the following conditions:

- (1) Containment failure has occurred or is imminent, and
- (2) Rate of release is much greater than designed leak rate, and
- (3) Either the total or major portion of radioactivity is projected to be released with 2 hours or less, then

in addition to the appropriate protective action recommendations the following statement and information should be given:

"Florida Power & Light Company recommends sheltering those areas that can't be evacuated before plume arrival."

WIND FROM			WIND TOWARD	
SECTOR	DIRECTION	DEGREES	DIRECTION	SECTORS
A	N	348-11	S	H J K
B	NNE	11-33	SSW	J K L
C	NE	33-56	SW	K L M
D	ENE	56-78	WSW	L M N
E	E	78-101	W	M N P
F	ESE	101-123	WNW	N P Q
G	SE	123-146	NW	P Q R
H	SSE	146-168	NNW	Q R A
J	S	168-191	N	R A B
K	SSW	191-213	NNE	A B C
L	SW	213-236	NE	B C D
M	WSW	236-258	ENE	C D E
N	W	258-281	E	D E F
P	WNW	281-303	ESE	E F G
Q	NW	303-326	SE	F G H
R	NNW	326-348	SSE	G H J

Containment Integrity

If loss of containment integrity is suspected, the following actions should be taken. If containment pressure is greater than 4 psig - verify PHASE A containment isolation and containment ventilation isolation valves are properly closed, as required. At containment pressure greater than or equal to 20 psig verify isolation valves for both PHASE A and B and containment isolation valves are properly closed. If possible, and accessible, secure identified leak path(s).

If loss of containment integrity is still suspected (e.g., unmonitored leakage through electrical penetration room, equipment, personnel or emergency hatch, etc.) instruct Health Physics personnel to survey for leakage in specified area(s) by external gamma survey and/or charcoal air sample and analysis.

NOTE: For loss of control of plant to intruders, base 2-5 mile and 5-10 mile PAR on other existing General Emergency conditions. If no other conditions exist (intruder only), no protective actions for the 2-5 miles or the 5-10 miles sectors should be given.

#### Field Monitoring - State

Annex I of the State Plan discusses the State role in accident assessment. It describes agencies and their missions, specialized personnel, special equipment (e.g., helicopters), and other matters related to field monitoring within the plume exposure EPZ. Section VII to Annex H discusses in further detail the capability and resources for field monitoring.

Field team compositions, transportation, communications, equipment and estimated deployment times are included in the State Plan.

Transportation of field teams is discussed in Section V of Annex H of the State Plan. Field team communications are described in Annex F of the State Plan. Monitoring equipment is described in Section VII of Annex H. Composition of field teams is discussed in Annex H of the State Plan. Deployment times are also discussed therein.

County plans also discuss accident assessment. For example, the Metro-Dade County Plan (Annex Q) indicates that the County Health Department Director will cooperate with DHRS with respect to accident assessment procedures. Annex Q also indicates that the Metro-Dade County Office of Emergency Management will be involved in assessment activities as well.

Section III of Annex I of the State Plan, discusses the measurement of iodine in air, and the use of such measurements in assessment activities.

## Field Monitoring - Plant

EPIP 20129 provides methods for activation of emergency field monitoring teams, dispatching these teams throughout the plume EPZ and communications. Equipment and instrumentation is maintained for two offsite monitoring teams. Equipment and instrumentation is maintained in the OSC for numerous onsite monitoring teams. The equipment includes air samplers, filters, silver zeolite cartridges, sample bags, forms, log books, phone lists, maps, and procedure packs. Instrumentation includes single channel gamma analyzer (sodium iodide crystal type) with the capability of detecting radioiodine concentrations of at least  $10^{-7}$  microcuries/cc in the field. Other instrumentation includes ion chamber survey monitors and high range gamma monitors. Communications will be maintained with the TSC Health Physics Supervisor by portable two-way radios or cellular telephones. The procedure packs include sampling techniques, measurements of airborne concentrations of radioiodine, direct radiation dose rates, transportation of teams, expected deployment times, and communications.

## Coordination of Sampling Data

To assure that information concerning FPL offsite radiological assessment is exchanged, arrangements have been made for State DHRS representatives to be stationed at the EOF. Direction and control of field operations for the Department of Health and Rehabilitative Service will be the Public Health Physicist Supervisor of Surveillance and Laboratories. He will conduct/supervise accident assessment and response of the field teams from a post at the EOF (Section III of Annex I of the State Plan). Office space and communications are provided therein and have been described in EPIP 1212 "Activation and Use of the Emergency Operations Facility (Turkey Point)". Prior to the arrival of DHRS personnel, coordination of this information will be through follow-up communications with DEM and the Plume Exposure EPZ counties.

DOE offsite monitoring assistance, if required, will be requested by the DEM in consultation with DHRS. Lead responsibility for coordination with DOE is assigned to DHRS.

## 5.2 Protective Response

This section describes the protective actions onsite, and the data provided to assist the state and county in determining appropriate offsite protective actions.



### 5.2.1 Protective Actions

#### Onsite

Onsite protective actions for a radiological emergency consist of evacuation of the affected area (localized evacuation or site evacuation), monitoring of all personnel who were in the affected area, and decontamination as required.

Individuals remaining or arriving onsite during an emergency will be provided protective equipment as prescribed by the TSC Health Physics Supervisor, the OSC HP Supervisor, and plant procedures. Radioprotective drugs will not be issued to emergency workers unless prescribed by a physician after an approximate exposure of 25 rem (with allowable protection factors taken in account).

Control Room personnel are in an isolated environment and need protective equipment to leave the Control Room or if the Control Room becomes contaminated. An emergency kit with all necessary equipment is present inside the Control Room and is to be used for this purpose.

#### Decontamination

Personnel decontamination facilities are available in three locations. Their use will be governed by the nature of the incident.

- 1) FPL Dress Out Building - Showers and sinks available for the decontamination of personnel with no (or minor) injuries.
- 2) Baptist Hospital of Miami - Decontamination shower and contaminated injury treatment room. For interim use to treat severely injured personnel. Located approximately 30 miles North of the Turkey Point Plant.
- 3) Decontamination Facility - The Florida City Substation has personnel decontamination capabilities available.

Vehicles will be decontaminated with the use of Metro-Dade County Fire Department equipment.

Extra clothing for personnel whose personal clothing has become contaminated is available in the form of disposable garments.

Contamination monitoring is performed through the use of count rate instruments with beta-gamma sensitive probes.

Methods for decontamination and monitoring are described in plant procedures. Contamination monitors and procedures are adequate for assessing potentially contaminated wounds either onsite or at the decontamination facility.

### Offsite

Offsite areas are the responsibility of the respective County Emergency response agencies, the DHRS and the Division of Emergency Management of the State of Florida. Control of radioactive contamination and public safety in offsite areas are responsibilities of these governmental agencies, and their criteria for implementing protective actions may be found in the Florida Radiological Emergency Plan for Nuclear Power Plants (see Appendix A). Decontamination of offsite areas will be performed under the direction of the DHRS.

Annex I of the State Plan, discusses evacuation time estimates and their use in determining protective actions.

The Metro-Dade County Plan and the Monroe County Plan (both Annex Q, Figure Q-16) discuss evacuation times.

Recommendations for protective actions will be made by the Emergency Coordinator (or RM if EOF is operational) using Figure 5-1. The development of this figure was based upon consideration of the severity of an accident (emergency class) and, when actual or estimated offsite doses are available, the EPA Protective Action Guides in conjunction with plant conditions.

### 5.2.2 Onsite Warning and Response

During an emergency, the relocation of persons onsite may be required in order to prevent or minimize exposure to radioactive materials. An evacuation is the orderly, rapid, and safe withdrawal of all personnel from an area affected by an emergency condition.





## Evacuation

Evacuation is the primary protective measure anticipated for onsite personnel not filling Emergency Response Organization positions. Contractors not having an emergency response function and visitors are normally evacuated at the Alert or higher classification. Evacuation of all other non-essential personnel, including personnel not required for the shutdown of the fossil units, occurs at the Site Area Emergency and General Emergency. However, the Emergency Coordinator shall use good judgement prior to moving personnel from the Owner Controlled Area. Such conditions as security events, release status, release duration, plant conditions and meteorological conditions should be evaluated.

Owner Controlled Areas outside the Protected Area are evacuated, if conditions warrant, of all non-FPL personnel at an Alert or higher emergency classification. Security is responsible for evacuation implementation per applicable EPIPs and SFIs while the Emergency Coordinator is responsible for the decision to evacuate.

Local Area Evacuations are performed as required for specific areas of the site experiencing hazardous conditions (fire, radiological, toxic gas, etc.). At a minimum, an announcement over the Public Address system will be made, ordering the Local Area Evacuation. Personnel in or around the affected area are instructed to stay clear.

## Accountability

At the declaration of a Site Evacuation (usually Site Area Emergency or General Emergency), all non-essential personnel are evacuated. All individuals in the Protected Area are accounted for and names of personnel not accounted for are established within 30 minutes of the initiation of the Site Evacuation. Once established, accountability within the Protected Area is maintained throughout the event. Upon notification that personnel are missing, the Emergency Coordinator shall ensure that Search and Rescue Operations are initiated. Accountability is coordinated by the TSC Security Supervisor and the results are forwarded to the Emergency Coordinator.

**FIGURE 5-2**  
**SITE EVACUATION ROUTES**

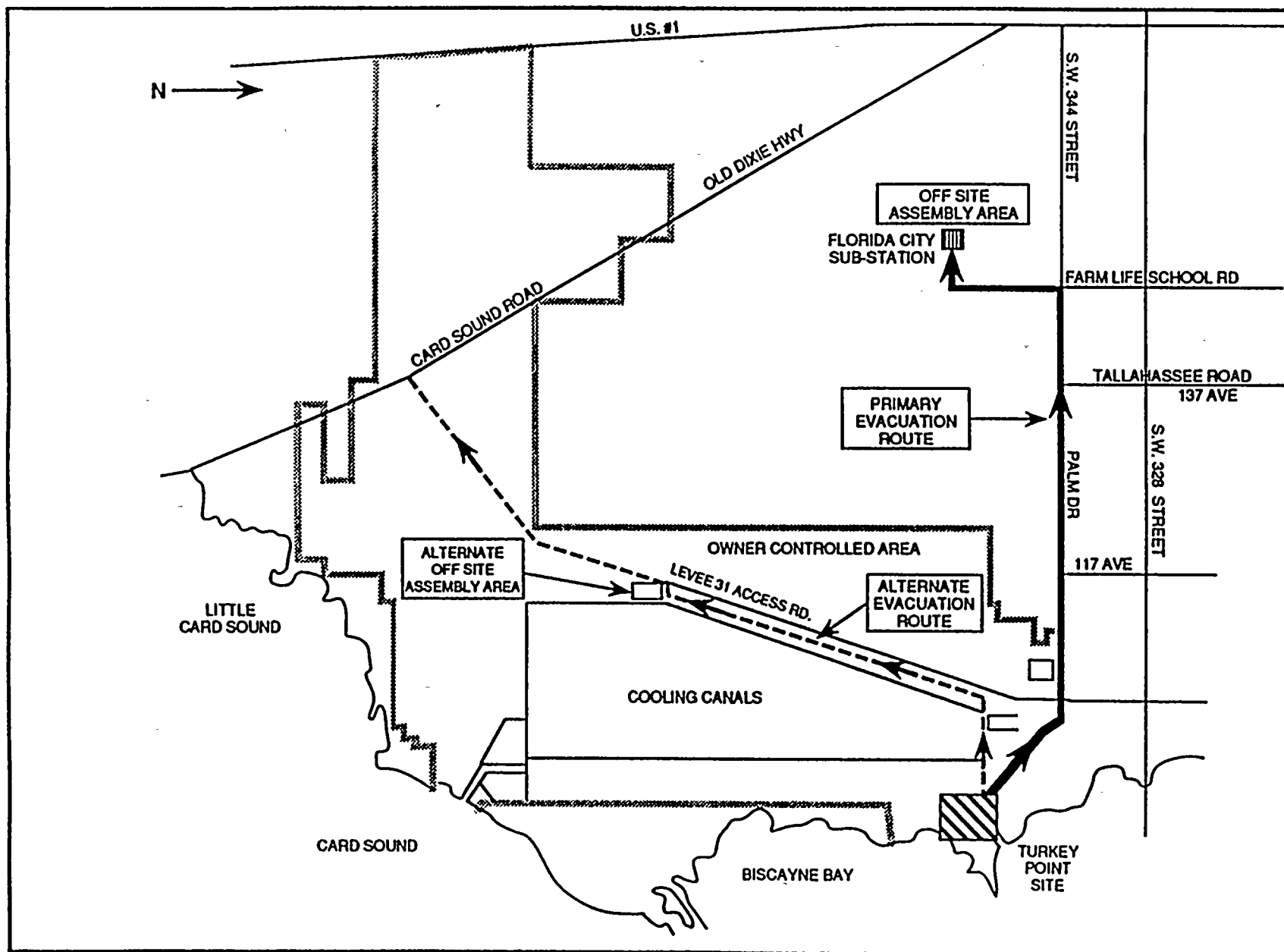




TABLE 5-3

**TYPICAL POPULATION WITHIN THE OWNER CONTROLLED AREA**

<u>AREA</u>	<u>POPULATION</u>	<u>COMMENTS</u>
Plant		
Nuclear	800	FPL & Contractor at shift change, with 1 unit in outage.
Fossil	120	
Contractors	500	
Cooling Canals present 2-3 times/year, normally 25	35	Includes visitors
Picnic Area (Red Barn)	300	Occasional use only
Girl Scout Camp	30	Occasional use only
Child Development Center	50	Open during normal business hours for employees and their family members
Fitness Center	40	Employees only
Rifle Range	12	Security Guard Force use
TOTAL	<u>1887</u>	



### 5.2.3 Offsite Area Protective Measures

An Offsite Area Evacuation is the orderly withdrawal of all persons from the portion of the public areas surrounding the plant which have been affected by the emergency. The criteria for the initiation of the evacuation are determined by the Department of Health and Rehabilitative Services as specified in the State of Florida Radiological Emergency Plan for Nuclear Power Plants. Annex Q of the State Plan describes evacuation measures and provides maps indicating designated evacuation routes.

The Emergency Coordinator (RM when EOF is operational) will recommend offsite protective actions based upon the criteria shown in Figure 5-1.

The Dade and Monroe County Emergency Response Directors and the State Division of Emergency Management will be responsible for the direction and implementation of the necessary protective actions as specified in the Florida Radiological Emergency Management Plan for Nuclear Power Plants, including notification and coordination with other state and local assistance agencies.

The State plan describes the bases for the choice of recommended actions for the exposure pathway during emergency conditions.

It will be the responsibility of the Dade and Monroe County Emergency Response agencies to notify the general public if an evacuation is warranted. This will be accomplished as discussed in Sections 5.2.4 and 5.2.8.

A summary of evacuation time estimates appears in Table 5-4 (Figure Q-16 in State Plan). Figure 5-5, (Figure Q-15 in State Plan) is a map of the Plume Exposure Pathway EPZ and indicates the evacuation study areas described in Table 5-4. Maps describing evacuation routes, monitoring points, and reception centers are provided in Annex Q, Section XII of the State Plan.

The emergency classification system used by the State includes certain protective actions which are automatically triggered upon the occurrence of designated emergency classifications. These are discussed in Annex D to the State Plan. Other protective action decisions are made on the basis of information which becomes available as a result of accident assessment. Assessment actions which would form a basis for recommendations are discussed in Annex I. The State and County plans point out that EPA Protective Action Guides will be an important basis for protective action recommendations.



#### 5.2.4 Public Warning and Information

Annex Q, to the State Plan, provides information on warning of the public and discusses warning procedures for Dade and Monroe counties. Prompt notification systems are discussed therein. FPL has purchased and installed an alert (siren) and notification system as described in Section 5.2.8.

Notification to the population and arrangements with public communications media are described in the State Plan. Annex E and Annex G to the State Plan provides the guidance for keeping the public informed about the potential hazards, emergency response, and protective measures that can be taken to minimize or avoid public health effects. Annex G also provides procedures for the timely and accurate collection, coordination, and dissemination to the public of such information. In an Alert, Site Area Emergency, or General Emergency, a press section in the State Emergency Operations Center will be the state's primary source for release of public information. An official spokesperson for the State, the Public Information Officer (PIO), will establish press sections in the State EOC and at FPL EOF. Through these press sections, the PIO will establish contact with wire services, newspapers, radio, and television. Information releases will be coordinated with Federal and local agencies.

Annex G of the State Plan also provides for releases to be used for media. These are consistent with FPL's classification scheme. These are examples of specific prior arrangements that have been made to use public communication media for issuing emergency instructions to the public. Annex G discusses annual orientation of the media. Annex Q also indicates TV and radio stations which would be used.

#### 5.2.5 Population Exposure Estimates

Population exposure estimates are discussed in the State Plan. Dose calculations assessment and monitoring in the Ingestion Pathway EPZ, and dose rate determination are discussed in Annexes H, I, J, K, and M.

#### 5.2.6 Special Need Populations

The State Plan (Appendix A) contains a discussion of evacuation of special needs populations in Annex Q of the State Plan.

#### 5.2.7 Population Distribution

Annex Q of the State Plan includes maps and tables showing population distribution.





TABLE 5-4

EVACUATION TIME AND TRAFFIC CAPACITY ESTIMATES

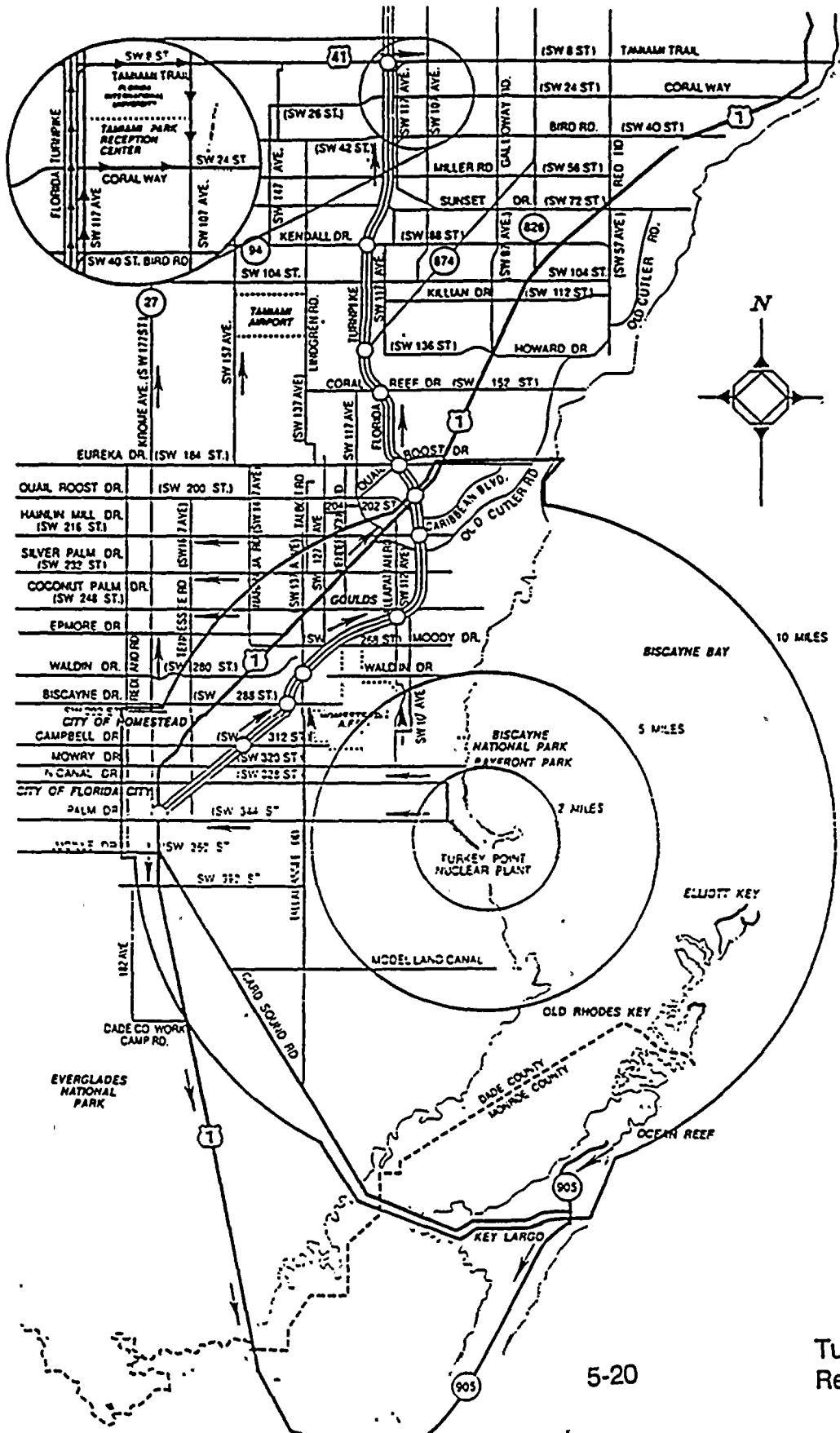
COUNTY AFFECTED	APPLICABLE SECTORS	ESTIMATED # OF AUTOMOBILES & CAPACITY (AUTOS PER HOUR)	POPULATION EVACUATION TIME ESTIMATES (0-10 MILES)			
			Normal Weather		Adverse Weather	
			Minutes	Hours	Minutes	Hours
Dade	A, R, Q	17,681 (8,700)	430	7.16	445	7.41
Dade	P, Q, R	34,231 (8,700)	419	6.99	434	7.24
Dade	M, N, P, Q	33,424 (8,700)	419	6.99	434	7.24
Monroe	H, J, K, L, M	5,635 (1,030)	228	3.80	243	4.05
Dade and Monroe	A, R, Q, P, N, M, L, K, J, H	51,357 (9,730)	434	7.23	449	7.48

FROM STATE OF FLORIDA RADIOLOGICAL EMERGENCY MANAGEMENT PLAN FOR NUCLEAR POWER PLANTS, REVISION 12/92.



**TABLE 5-5**

**DADE AND MONROE COUNTY EVACUATION ROUTES**





## 5.2.8 Alert and Notification System

An alert and notification system has been installed and will be used by the Dade and Monroe County Emergency Response Directors for alerting the population of the need to possibly take protective actions. The system consists of approximately 48 electronic sirens located throughout the Plume Exposure Pathway EPZ. These electronic sirens have the public address capability for voice messages. Upon sounding the sirens, the affected public, keyed through the public information program, would turn on their radios to the local Emergency Broadcast System (EBS) radio station and await emergency information.

## 5.3 Radiological Exposure Control

### 5.3.1 Onsite Radiation Protection Program

An objective of emergency response is to minimize radiation exposure to individuals both onsite and offsite. Situations may arise, however, when observance of this goal is inconsistent with personnel or plant safety. In anticipation of such needs, guidelines have been established for emergency conditions. The guidelines on which the emergency radiation protection program is based are stated below.

- 1) Efforts should be made to limit radiation exposures to the quarterly exposure limits established for routine operations. Shorter stay times and portable shielding should be used when possible to minimize personnel exposures.
- 2) Where exposures to personnel are expected to exceed those permitted by 10 CFR20, the following guidelines will be met:

(Note: Additional information concerning these guidelines and their implementation is contained in the FPL Radiation Protection Manual, EPIP 20111 and EPIP 20130.

- a) This exposure, with the exception of exposure received for personnel rescue actions (life saving only), must be explicitly authorized in advance by the Emergency Coordinator (EC).

For those remote circumstances involving an event in progress, and obtaining EC approval would result in leaving the accident scene or decrease the victim(s) chance of survival, life saving actions may be performed without EC approval. The EC shall be notified immediately following the rescue operation.

- b) Any volunteer authorized (by the EC or RM) to receive greater than regulatory exposure limits should be a healthy male. No women of child bearing age will be selected to perform these emergency actions.



- c) Whole body exposure received by emergency workers is to be considered occupational exposure and retained as part of the individual's dose history. Whole body exposure limits have been established as follows:
- Under emergency conditions not requiring action to prevent serious injury or a catastrophic incident, personnel exposure should not exceed 5 rem to the whole body or 25 rem to the thyroid.
  - A planned emergency exposure to prevent destruction of equipment which could result in serious injury or to assess a potentially critical situation should not exceed 12 rem to the whole body or 60 rem to the thyroid.
  - When immediate action is necessary to prevent serious injury, dose to the whole body should not exceed 25 rem and dose to the thyroid should not exceed 125 rem. Events in this category include removal of incapacitated personnel from high radiation areas, providing emergency medical treatment including first aid and decontamination of individuals.
  - For lifesaving actions, an individual may receive a whole body dose of 75 rem. "No specific upper limit is given for thyroid exposure since in the extreme case complete thyroid loss might be an acceptable penalty for a life saved. However, this should not be necessary if respirators and/or thyroid protection for rescue personnel are available as the result of adequate planning."<sup>1</sup> Because of the health risks associated with the dose limit, lifesaving missions should be undertaken by volunteers (healthy males above the age of 45) who have an understanding of the health risks and preferentially by those whose normal duties have trained them for such missions.
- d) Frequent checking of radiation survey instruments and self reading dosimeters is required during emergency operations.

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<sup>1</sup>EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."



- e) Whenever it is likely that an area has the potential for airborne radioactivity greater than limits specified in plant Health Physics procedures, appropriate protection will be prescribed.
- 3) The radiation exposure of individuals providing ambulance service and medical treatment service will be kept as low as reasonable achievable. Proper precautions will be taken to assure that these individuals' exposure will remain within the limits of 10 CFR 20.

### 5.3.2 Dose Records

All emergency response personnel under the authority of FPL who will potentially be exposed to radiation in the course of their duties will be monitored by the plant radiation exposure monitoring program. Personnel in this category will be issued the appropriate personnel dosimetry devices. FPL Nuclear Energy Department procedures provide for conducting the personnel dosimetry program. The Company has the capability of determining radiation exposures on a 24 hour per day basis. Dose records for all individuals exposed to ionizing radiation at FPL's facilities are maintained.

### 5.3.3 Contamination Control and Decontamination Procedures

A personnel decontamination washroom and shower room with chemical decontamination agents is provided in the FPL Dress Out Building. Except in cases of serious injury, accepted decontamination practices will be employed onsite. Life endangering injuries such as extensive burns, serious wounds, or fractures shall receive prompt attention in preference to decontamination. Personnel with injuries involving radiation or radioactive contamination will be handled by SFEP in the Emergency Room at Baptist Hospital or Mercy Hospital. Plant Health Physics procedures specify that decontamination of uninjured personnel must be attempted at contamination levels greater than minimum detectable activity as defined in Health Physics procedures.

Food for emergency workers would be brought in from offsite, if necessary. Frequent surveys of habitable areas utilized during emergency response (i.e., Control Room, OSC, TSC, and Guardhouses) will be performed to assure that these areas remain uncontaminated and tenable. Specifically, special attention to drinking water and food supplies will be given to assure that these supplies remain uncontaminated.

### 5.3.4 Radioactive Wastes

Radioactive wastes (resins, trash, etc.) accumulated during an emergency will be handled by normal plant procedures. Any special circumstances will be handled on a case-by-case basis.

## 5.4 Recovery and Re-entry

### 5.4.1 Onsite

Once the hazard potential has passed, steps must be taken to recover from the incident. All actions should be preplanned in order to limit exposures. Access to the area will be controlled and personnel exposures will be documented.

The Emergency Control Officer (ECO) has the responsibility for determining when it is appropriate to enter into the recovery phase. The Recovery Organization consists of an augmented Expanded Response Organization. The Emergency Response Managers would continue their assigned duties using additional personnel as necessary. The Recovery Manager (or EC) will evaluate the status of the plant by reviewing all current and pertinent data available from emergency response and/or monitoring teams. The recovery phase will begin only when the plant conditions are stable and the following guidelines are met:

- 1) Radiation levels in all in-plant areas are stable or decreasing with time.
- 2) Releases of radioactive materials to the environment from the plant are under control or have ceased.
- 3) Any fire, flooding, or similar emergency conditions are controlled or have ceased.
- 4) The reactor is in a stable condition.

At the time of initiating activities to enter the recovery phase, the Recovery Manager will be responsible for informing all applicable agencies (e.g., federal, state, and local agencies) that onsite conditions have stabilized and activities for recovering from the incident can now begin. Any de-escalation from a Site Area or General Emergency requires prior approval of the Emergency Control Officer.

Planned recovery actions which may result in radioactive release will be evaluated by the Recovery Manager and his staff in advance. Such planning and data pertaining to the possible release will be reported to the appropriate offsite emergency response organization and agencies.

Re-entry into an affected area may be required before entering the recovery phase. Re-entry into an evacuated area will be made by the emergency Teams when required for one or more of the following reasons:

- 1) To ascertain that all personnel who were in the affected area have been evacuated, or to search for unaccounted personnel.
- 2) To assist in evacuating injured or incapacitated personnel from the affected area.



- 3) To perform operations which may mitigate the effect of the emergency or hazardous condition.
- 4) To determine the nature and extent of the emergency and/or radiological conditions.
- 5) to establish personnel exclusion area boundaries.

Re-entry will take place only under the authority of the Emergency Coordinator normally through the OSC Supervisor. The leaders of the Emergency Response Teams and/or the Fire Team are responsible for evaluating the existing emergency conditions and informing the Emergency Coordinator via the OSC of the advisability of re-entry. For emergencies inside the RCA, the TSC Health Physics Supervisor will be responsible for providing HP coverage to Emergency Teams.

More detailed guidance for re-entry teams is contained in plant procedures.

#### 5.4.2 Offsite

State and County officials would be in control of recovery and re-entry offsite. Population exposure estimates are discussed in the State plan. Annex I discusses the projected dose calculations and assessment and monitoring in the ingestion pathway EPZ. Annex M of the State Plan (Recovery and Re-entry Planning) also discusses population dose measurement.



## 6. PUBLIC INFORMATION

### 6.1 Preparatory Public Information Program

#### 6.1.1 Purpose

The purpose of the preparatory public information program is to inform the public of how they will be notified and what their actions should be in a radiological emergency.

#### 6.1.2 Program Execution

Florida Power & Light Company has the responsibility for conducting the public information program with the support from the State Division of Emergency Management and the Monroe County and Metropolitan Dade County Emergency Management offices.

Annex G of the State Plan discusses the preparatory public information program. Section VII of Annex G describes periodic dissemination. Section VII indicates that the educational program will be conducted on an annual basis. Section VII also indicates that permanent and transient population will be provided with an opportunity to become aware of the information. This section also indicates that the program will contain information on radiation, respiratory protection, sheltering, evacuation procedures, warning and notification systems, and who to contact for additional information.

### 6.2 Florida Power & Light Company Emergency Public Information Program

This section delineates the organization, public information network, and facilities that would be made available as required in an emergency.

#### 6.2.1 Organization

The members of the emergency public information organization (see Figures 6-1) and their respective responsibilities are as follows:

#### Emergency Information Manager (EIM)

The EIM will be a designated corporate officer or senior manager experienced in media relations and having knowledge of nuclear plant operations. He will be responsible for coordinating dissemination of information to the public via the news media. Insofar as practical, he will work with the NRC, state, and local news media representatives to effect joint releases and public appearances. He will work with other company officials



to develop formal statements and responses. All FPL press releases should originate with or be cleared by the EIM. He will assure that exchange of information among designated spokespersons is accomplished in a timely manner, when possible.

#### Nuclear Information Staff

A staff of public information and technical personnel will be assigned as needed to the Emergency News Center. Their responsibilities will be to:

- 1) Provide technical briefings to the press.
- 2) Inform company employees through a newsletter, bulletin board statements, or other in-place networks.
- 3) Inform the industry, so other companies both in the United States and overseas can deal with questions as they arise from their local media.
- 4) Prepare background material for features, historical context, profiles, etc.
- 5) Handle the photographic needs of the company.
- 6) Record and transcribe all press conferences and other official proceedings for the benefit of company management, official agencies, and the news media.
- 7) Accredited and escort members of the press.
- 8) Provide its own stenographic and typing services for news releases, photo captions, reports, transcripts, etc.
- 9) Provide reference services for maintaining files of releases and photos, obtaining newspapers, monitoring wire services and news broadcasts, logging all clippings.

The staff of the Florida Power & Light Company Corporate Communications Department may be augmented by personnel from other utilities, consultants, or universities.

#### 6.2.2 Emergency News Center (ENC)

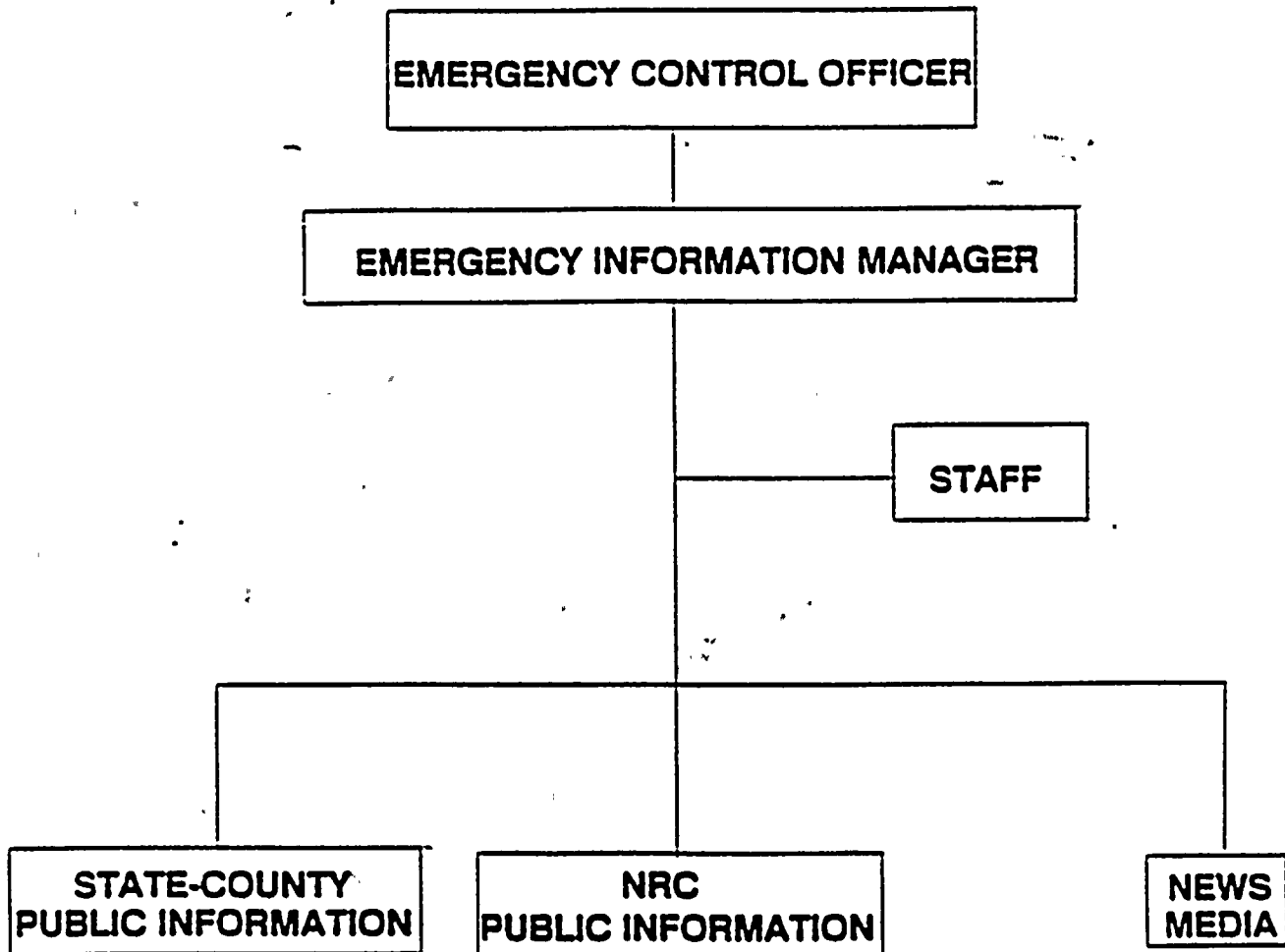
An Emergency News Center (ENC) will be provided to allow the news media access to information from the EOF. The ENC is located on the second floor of the General Office. The Emergency Information Manager will report to the EOF, a designated ENC supervisor and his staff will man the ENC when the EIM deems it appropriate.





FIGURE 6-1

**PUBLIC INFORMATION INTERFACES**





The National Guard Armory in Homestead may be used as the Near-Site Information Center. The facility is located at 807 N. E. 6th Avenue (just south of Campbell Drive) approximately 9 miles WNW of the Plant. The EIM will designate a staff to man the Near-Site Information Center when appropriate.

#### 6.2.3 News Media Provisions

Florida Power & Light Company will conduct an annual program to acquaint the news media with the emergency plans, information concerning nuclear power, and points of contact for release of public information in an emergency.

In the event of an emergency, representatives of the news media will be provided space in the Emergency News Center for work and interview purposes.

#### 6.2.4 Written Messages for the Public

Sample formats that may be used for release of information by FPL to the public via the news media appears in Tables 6-1 through 6-7. These releases include initial statements for each class of emergency and follow-up statements for the Alert class and higher.

#### 6.3 Rumor Control

FPL will coordinate information exchange with State officials at the EOF and County officials at the EOC. This coordination will include awareness of media releases. This timely exchange of information among designated spokespersons will aid in dispelling most rumors. In written material which is disseminated annually, means for the public to obtain timely and accurate information is provided. Section VI to Annex G of the State Plan also discusses Rumor Control. Additionally, Dade County Office of Emergency Management maintains telephones designated for rumor control.

TABLE 6-1  
INITIAL FPL STATEMENT (Sample)

Number: Florida Power & Light Company  
Date: Emergency News Center  
9250 W. Flagler St.  
Miami, FL 33102  
Time: Phone:

**NEWS RELEASE**

**UNUSUAL EVENT**

MIAMI -- Florida Power & Light Company has alerted the Nuclear Regulatory Commission that an "unusual event" has occurred at its Turkey Point Nuclear Power Plant located south of Miami.

According to initial reports, the event relates to \_\_\_\_\_  
(give plant/unit specific data)

The situation was first identified at \_\_\_\_\_ (time)

Due to the nature of the event, FPL officials have determined that:

(Options:)

1. The unit can remain operational at this time without posing a health or safety hazard to plant employees or the general public.
2. The power levels at the plant will be systematically reduced in order to investigate the extent of the problem. Full shutdown is expected later today.
3. The unit will be immediately be brought off-line and orderly shutdown procedures will be initiated.

All safety systems are operating normally and officials have stated that no radioactivity has been released as a result of this event. No further information is available at this time. However, news media will be kept informed of the plant's status as it becomes available.

# # #



TABLE 6-1  
INITIAL FPL STATEMENT (Sample)

Number: Florida Power & Light Company  
Emergency News Center  
Date: 9250 W. Flagler St./Miami, FL 33102  
Phone:

Time:

**NEWS RELEASE**

**ALERT**

MIAMI -- Turkey Point Nuclear Power Plant has declared an alert, based on problems at Unit # \_\_\_\_, Florida Power & Light Company has announced.

The unit had been (still operational), (under gradual power reduction), (in a full-scale, orderly shutdown following (give data relating to alert)). FPL officials called for the alert and have notified appropriate state and federal officials. All visitors have been notified to leave the site as a precaution.

**Option 1 (no radiation release)**

Plant operators report that no radiation has been released from the unit as a result of the problem. Monitoring teams have been deployed at the plant site as a routine precaution. All safety systems are operating and the unit has been placed in an orderly shutdown mode as officials continue to investigate the problem. FPL officials caution that no public action is required and no health or safety problem exists at this time.

**Option 2 (radiation release)**

Monitoring equipment at the plant has detected (small/additional) amounts of radiation being released to the atmosphere as a result of the situation at Unit # \_\_.

However, this amount is not significantly above normal background radiation detected in the atmosphere (and does not pose an immediate health or safety hazard to plant employees or the public.) The nature and cause of the release is being investigated and further details are not available at the present time. Radiation monitoring teams have been deployed in response to the developments.

# # #

TABLE 6-1  
INITIAL FPL STATEMENT (Sample)

Number: Florida Power & Light Company  
Emergency News Center  
Date: 9250 West Flagler St./Miami, FL 33102  
Phone:  
Time:

**NEWS RELEASE**

**SITE AREA EMERGENCY**

MIAMI -- Florida Power & Light Company has announced that a site area emergency exists at Turkey Point Nuclear Power Plant. At \_\_\_\_ (a.m./p.m.), all plant employees except those with emergency response duties were ordered to evacuate the plant site.  
(Option 1 - no radiation release)

Officials called for the evacuation of non-emergency employees as a precautionary measure due to (insert plant specific data, if known). There are still approximately 90 plant personnel remaining in the plant's control room, technical support center and operations support center. This includes plant management, operators for both generating units, and personnel from health physics, chemistry, maintenance and engineering. The cause and nature of the problems are being investigated and further details are not available at this time. No radiation releases have been detected as a result of the situation at Unit # \_\_\_\_.

(Option 2 - radiation release)

Monitoring equipment at the plant has detected (small/additional) amounts of radiation being released to the atmosphere as a result of the situation at Unit # \_\_\_\_.

However, this amount is not significantly above the normal background radiation detected in the atmosphere (and does not pose an immediate health or safety hazard to plant employees or the public.) The nature and cause of the release is being investigated and further details are not available at the present time.

The plant is continuing shutdown procedures and emergency cooling of the reactor core is continuing. Persons in the immediate vicinity of the plant should continue to monitor radio and television broadcasts for the latest information.

# # #





TABLE 6-1  
INITIAL FPL STATEMENT (Sample)

Number:	Florida Power & Light Company
	Emergency News Center
Date:	9250 W. Flagler St.
	Miami, FL 33102
Time:	Phone:

**NEWS RELEASE**

**GENERAL EMERGENCY**

MIAMI -- Florida Power & Light Company, in conjunction with state and federal authorities, has announced that a general emergency exists at its Turkey Point Nuclear Power Plant as a result of escalating problems at Unit #\_\_.

Persons within a 10-mile radius of the plant are advised to monitor radio and television stations for more information. Please follow all instructions provided through emergency broadcast services.

At this time, the plant is experiencing (significant, but controlled), (significant, uncontrolled), (small, but controlled), (small, uncontrolled), (no) releases of radiation to the environment. Plant operators report that (insert available plant status info).

(CAUTION: THE INFORMATION BELOW CONCERNING PROTECTIVE ACTIONS SHOULD BE VERIFIED WITH STATE/COUNTY OFFICIALS BEFORE IT'S RELEASED.)

(Option 1 - No public action)

Non-essential personnel have been removed from the plant site, but no public action is being called for at this time. Monitoring teams are in the area to evaluate the situation. You will be advised as more information is available.

(Option 2 - Public action)

Based on the radiological release, the following public action has been called for (give specifics).

# # #

TABLE 6-1  
FOLLOW-UP FPL STATEMENT (Sample)

Number:	Florida Power & Light Company
	Emergency News Center
Date:	9250 W. Flagler St.
	Miami, FL 33102
Time:	Phone: .

**NEWS RELEASE**

**LOSS OF POWER/CORE DAMAGE/RADIATION PLUME**  
(possible follow-up to general emergency)

MIAMI -- Significant equipment problems and loss of power to operate reactor core cooling systems have resulted in loss of coolant and partial uncovering of reactor fuel at Turkey Point Nuclear Unit # \_\_\_\_, FPL plant operators have reported.

Additional emergency systems are being employed. However, monitoring teams are registering radiation in the atmosphere around the plant site. Weather conditions are moving a radiological plume in a \_\_\_\_\_ direction.

The public is advised to monitor emergency broadcast messages on radio and television.

# # #

TABLE 6-1  
FOLLOW-UP FPL STATEMENT (Sample)

Number: Florida Power & Light Company  
Date: Emergency News Center  
9250 W. Flagler St.  
Miami, FL 33102  
Time: Phone:

NEWS RELEASE

**MEDICAL EMERGENCY**

MIAMI -- Florida Power & Light Company has reported that one of its workers at the Turkey Point Nuclear Power Plant has been injured and requires medical treatment.

The employee was scheduled to be transported by ambulance to Baptist Hospital in Miami at \_\_\_\_\_ (am/pm).

Preliminary reports indicate the employee suffered \_\_\_\_\_  
(injury) \_\_\_\_\_

while working in the plant's \_\_\_\_\_ (location) \_\_\_\_\_.

The worker has received some radioactive contamination, but further information of (his/her) condition is not available at this time.

The hospital has specialized equipment and protective procedures to ensure proper handling of any radioactive contamination.

# # #



TABLE 6-1  
FOLLOW-UP FPL STATEMENT (Sample)

Number:	Florida Power & Light Company
Date:	Emergency News Center
	9250 W. Flagler St.
	Miami, FL 33102
Time:	Phone:

NEWS RELEASE

**EMERGENCY NEWS CENTER ACTIVATED**

MIAMI -- The Turkey Point Emergency News Center is now open and operating. Information about the nuclear emergency will be provided at this facility, located in FPL's general office at 9250 West Flagler Street in Miami. All affected agencies -- county, state and federal -- will have representatives at the Emergency News Center to provide information about the emergency.

The Emergency News Center can be contacted by calling .

**(IMPORTANT: That telephone number is for news media only and should NOT be announced to the general public.)**

Rumor control numbers for the general public are  
for the State Division of Emergency Management and . for the Metro-Dade  
County Office of Emergency Management.

# # #



## 7. MAINTAINING EMERGENCY PREPAREDNESS

### 7.1 Exercises and Drills

#### 7.1.1 Definitions

An exercise is an event that tests the integrated capability of a major portion of the basic elements existing within the FPL emergency response organization. An exercise includes mobilization of state and local governmental personnel and resources adequate to verify the capability to respond to an accident scenario.

A drill is a supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation. A drill is often a component of an exercise. A drill should be evaluated by the supervisory personnel conducting the drill.

#### 7.1.2 Purpose

Periodic exercises and drills will be conducted in order to test the state of emergency preparedness of participating personnel, organizations, and agencies. Each exercise or drill will be conducted to:

- 1) Ensure that participants are familiar with their respective duties and responsibilities.
- 2) Verify the adequacy of the Emergency Plan and emergency procedures.
- 3) Test the communication network and systems.
- 4) Check the availability of emergency supplies and equipment.
- 5) Verify the operability of emergency equipment.

The results of the exercises will form the basis for prescribing action to eliminate identified deficiencies.

#### 7.1.3 Planning

The Manager, Nuclear Emergency Preparedness will be responsible for the planning, scheduling, and coordinating of all emergency drills or exercises involving offsite agencies. The Emergency Preparedness Supervisor will have the same responsibility for all onsite emergency drills except fire drills which are coordinated through the Fire Protection Department. A sample format for drill and exercise scenarios appears as Table 7-1. All exercises and drills involving the plant are subject to the approval of the Plant General Manager-Nuclear.





When a major exercise is to be conducted, the Manager, Nuclear Emergency Preparedness will:

- 1) Schedule a date for the exercise in coordination with the Emergency Preparedness Supervisor and the primary state and county emergency response agencies. Obtain the approval of the Plant General Manager-Nuclear.
- 2) Request that the Plant General Manager-Nuclear assign personnel to assist the Emergency Preparedness Supervisor to prepare a scenario.
- 3) Coordinate all FPL efforts with other participating personnel, organizations, and agencies.
- 4) Offer federal, state, and local officials the opportunity to observe the exercise.

When an exercise or a major drill is to be conducted, the Plant Services Manager-Nuclear (or Fire Protection Department for fire drills) will assure that the following is accomplished:

- 1) Assign personnel to prepare a scenario.
- 2) Coordinate through the Manager, Nuclear Emergency Preparedness all drill activities which involve offsite personnel, organizations, or agencies.
- 3) Schedule a date for the activity in coordination with the Manager, Nuclear Emergency Preparedness and assign controllers, evaluators, and observers.
- 4) Discuss and evaluate the exercise with observers and principal participants.
- 5) Review evaluations of the exercise or drill with the Plant Nuclear Safety Committee.
- 6) Ensure that deficiencies which are identified are addressed with corrective measures.
- 7) Submit scenario and critique summary with corrective actions to the Manager, Nuclear Emergency Preparedness.
- 8) Retain corrective actions and their resolutions for record keeping.

The Plant Services Manager-Nuclear may delegate any of these responsibilities to the Emergency Preparedness Supervisor as deemed necessary.



These exercises and drills will simulate emergency conditions and may be scheduled such that two or more exercises or drills are conducted simultaneously. The Manager, Nuclear Emergency Preparedness will normally notify the offsite emergency response organizations and agencies at least 30 days in advance of the scheduled date of an exercise.

#### 7.1.4 Conduct of Exercises, Drills, and Tests

##### 7.1.4.1 Exercises (Integrated Drills)

A major radiological emergency response exercise will be conducted at least once every calendar year to demonstrate the effectiveness of the Emergency Plan. Any exercise that will provide for the coordination with and participation of offsite emergency response personnel, organizations, and agencies including those of federal, state, and local governments should escalate to a General Emergency. The emergency scenario will be varied from year to year such that all major elements of the plan are tested at least every five years.

The major elements that should be tested every five years include, but are not limited to:

- ◆ Off hours staffing (6 P.M. - 4 A.M.)
- ◆ Activation of Emergency News Center
- ◆ Use of fire control teams
- ◆ Use of medical support personnel
- ◆ Use of security personnel for prompt access to emergency equipment or support
- ◆ Use of one or more portions of backup communications for notification
- ◆ Field monitoring
- ◆ Capability for determining the magnitude and impact of the particular components of a release
- ◆ Capability for post-accident coolant and sampling analysis
- ◆ Assembly and accountability
- ◆ Recovery and reentry of the site



TABLE 7-1  
**EXAMPLE SCENARIO FORMAT**

- 1.0 Basic objective(s) of drill or exercise
- 2.0 Logistics
  - 2.1 Date(s)
  - 2.2 Time period
  - 2.3 Location(s)
  - 2.4 Participating organizations
- 3.0 The simulated events
- 4.0 Time schedule of real and simulated events
- 5.0 Narrative summary describing the conduct of the exercises or drills.
  - 5.1 Simulated casualties
  - 5.2 Offsite firefighting assistance
  - 5.3 Rescue of personnel
  - 5.4 Radiological monitoring deployment
  - 5.5 Public information activities

(Note: 5.1 through 5.5 are examples of subjects that might be discussed in Section 5.0 of the scenario)
- 6.0 Duties of observers
  - 6.1 Specific observer assignment by area
  - 6.2 Material provided to observers (i.e., checklists)
  - 6.3 Pre-drill meeting
    - A. Date
    - B. Time
    - C. Location
- 7.0 Critique/Evaluation
  - 7.1 Date
  - 7.2 Time
  - 7.3 Location
  - 7.4 Suggested Participants



#### 7.1.4.2 Radiological Monitoring Drill

A radiological monitoring drill will be conducted at least once every calendar year. These drills will include collection and analysis of air sample media and analysis of direct radiation surveys. As an integral part of this annual drill, communications and the understanding of messages between the offsite monitoring team(s) and the TSC Offsite Team Leader in the TSC will be tested. The Health Physics Department will conduct health physics drills semi-annually and one of the semi-annual drills may be incorporated into the radiological monitoring drill.

As indicated in Section III of Annex N of the State Plan, offsite radiological monitoring drills will be conducted annually, and these drills will involve the collection of all sample media (e.g., water, grass, soil, and air).

#### 7.1.4.3 Medical Emergency Drill

A medical emergency drill involving a simulated contaminated individual, with provisions for participation by local support services (i.e., ambulance and offsite medical treatment facility), will be conducted at least once every calendar year.

#### 7.1.4.4 Fire Emergency Drill

Fire drills are conducted in accordance with Technical Specifications to test the operational readiness (personnel, equipment, and procedures) to control and extinguish a fire at the site. The drills also serve to evaluate and document the response of onsite personnel and participating offsite agencies to varying fire situations. The communication links and notification procedures are tested at least semi-annually during fire emergency drills. A post-drill critique is held after each fire drill is completed to identify possible areas for improvement in equipment and/or procedures.





#### 7.1.4.5 Communications Tests and Drills

Communications with state and local governments within the plume exposure pathway Emergency Planning Zone (EPZ) will be tested monthly. Communications with the NRC via the Emergency Notification System (ENS) will be tested monthly. On an annual basis, communications to the State EOC, Dade, and Monroe County EOCs will be tested. As part of the annual test certain information will be exchanged. It will be determined whether or not the content of the drill messages are understood. The annual drill may be performed as part of the annual exercise.

Quarterly communications tests will be conducted with the FPL Corporate Emergency Organization. This test may be performed as part of an annual exercise or associated with an actual declared emergency.

As indicated in Section III of Annex N of the State Plan, the State conducts communication drills at least annually. These drills include "communications between the nuclear facility, state, and local emergency operation centers and field assessment teams..." Annex F of the State Plan indicates the equipment tested during drills.

Augumentation Drills are held once per calendar year to test response capabilities of the onsite emergency response organization.

#### 7.1.4.6 Unannounced Drills

At least one communications drill per year will be unannounced. This unannounced drill will include notification to primary offsite response agencies (i.e., DEM, DHRS, County Disaster Preparedness agencies) and those FPL emergency response personnel required to be notified based upon the drill scenario.

Since the annual exercise scenarios are held confidential, fire, medical, evacuation, communication, and accountability drills, when conducted in conjunction with an annual exercise, are unannounced (actual time and specific details of the simulated events are not released).



### 7.1.5 Evaluation

During drills and exercises, controllers may make on-the-spot corrections to actions taken by drill participants that might affect the planned outcome (objective) of the drill. Minor errors in procedures or techniques will be noted and discussed during the post-drill evaluation.

Following an exercise, the Manager, Nuclear Emergency Preparedness, Emergency Preparedness Supervisor, Turkey Point Plant management, FPL controllers/evaluators, and principal participants in the exercise will meet to discuss and evaluate the exercise.

The evaluation should be based on the ability of participants to follow emergency procedures, the adequacy of emergency procedures, and the adequacy of emergency equipment and supplies. The Emergency Preparedness Supervisor will be responsible for any necessary changes in the Plant Emergency Procedures and for recommending changes in the Emergency Plan to the Manager, Nuclear Emergency Preparedness.

## 7.2 Emergency Response Training

### 7.2.1 Objectives

The primary objectives of emergency response training are as follows:

- 1) Familiarize appropriate individuals with the Emergency Plan through related implementing procedures.
- 2) Instruct individuals in their specific duties to ensure effective and expeditious action during an emergency.
- 3) Periodically present significant changes in the scope or content of the Emergency Plan Implementing Procedures.
- 4) Provide refresher training to ensure that personnel are familiar with their duties and responsibilities.
- 5) Provide the various emergency organization groups with the required training that will ensure an integrated and prompt response to an emergency situation.

### 7.2.2 Training of Onsite Emergency Organization Personnel

Training programs have been established for personnel working at the plant site. The programs include initial indoctrination (General Employee Training) and subsequent retraining.



The training program for members of the onsite emergency organization will include practical drills in which each individual demonstrates an ability to perform assigned emergency functions.

The Turkey Point Plant Training Manager is responsible for conducting and documenting the initial training and annual retraining programs for onsite FPL emergency organization personnel, including Emergency Teams. The Emergency Preparedness Supervisor is responsible for the content and accuracy of the Emergency Preparedness training.

Each new employee permanently assigned as an Emergency Response Organization member at the Turkey Point Plant shall be given initial training in the Emergency Plan and Procedures.

For employees not assigned specific responsibility under the Emergency Preparedness Program, initial orientation training shall, at a minimum, provide information describing the action to be taken by an individual discovering an emergency condition, the location of assembly areas, the identification of emergency alarms, and action to be taken on hearing those alarms.

Training requirements are delineated in EPIP 20201, "Radiological Emergency Plan Training."

### 7.2.3 Training of FPL Corporate Emergency Organization Personnel

The Manager-Nuclear Emergency Preparedness is responsible for the conduct and documentation of initial training and annual retraining for FPL Corporate Emergency Organization personnel.

#### 7.2.3.1 Emergency Control Officer and Recovery Manager

- a) Prompt and effective notification methods, including the types of communication systems.
- b) Method of activating the Florida Power & Light Company Emergency Organization.
- c) The methods used for estimating radiation doses and recommending offsite protective actions.
- d) Emergency Plan familiarization.
- e) Emergency procedures familiarization.

- f) Familiarization with the Emergency Operations Facility and the Technical Support Center.

7.2.3.2 Emergency Information Manager, Governmental Affairs Manager, Emergency Security Manager, Emergency Technical Manager

- a) Emergency Plan familiarization.
- b) Emergency procedures familiarization.

7.2.4 Training of Non-FPL Offsite Emergency Response Personnel

Offsite agencies which may be called upon to provide assistance in the event of an emergency will be offered briefings annually. These briefings will discuss basic concepts in radiation protection, plant operations, security, and emergency classification and response. The following groups will be offered these sessions:

- 1) Fire and rescue
- 2) Police
- 3) Local disaster preparedness officials
- 4) Medical support

7.2.4.1 State and Local Support

Annex O of the State Plan discusses State standards for training and retraining of offsite (state and local) emergency response personnel.

7.3 Planning Effort Development

Overall authority and responsibility for radiological emergency preparedness and planning lies with the President, Nuclear Division. As described below, through his staff (at the plant and Juno Beach), the FPL Emergency Preparedness program is implemented. Major responsibility in this area has been described through this plan.

7.3.1 Review Procedure

The Emergency Plan and Emergency Plan Implementing Procedures will be under continuing review by the Florida Power & Light Company Manager, Nuclear Emergency Preparedness and Emergency Preparedness Supervisor. Notification lists and rosters will be updated at least quarterly. The Emergency Plan and letters of support will be reviewed annually. Changes to the plan and updated letters of support and agreement will be





incorporated as required. When substantial changes affecting emergency response are identified; these changes will be made when needed. If during this annual review of the Plan and letters no changes are needed, this should be documented. Responsibility for the day-to-day emergency planning coordination at the plant lies with the Emergency Preparedness Supervisor.

The Plant Nuclear Safety Committee will conduct periodic reviews of Emergency Plan Implementing Procedures, in accordance with Technical Specifications and update the procedures as necessary to incorporate the results of exercises and drills and to account for other site-related changes. Recommended changes to the Emergency Plan will be submitted, in writing, to the Manager, Nuclear Emergency Preparedness. Changes in the Emergency Plan that are approved by the President, Nuclear Division will be incorporated into the Emergency Plan under the direction of the Manager, Nuclear Emergency Preparedness.

Document holders (e.g., FPL, state, local, and federal agencies, etc.) will receive revisions to the Emergency Plan as they are issued. The Manager, Nuclear Emergency Preparedness is responsible for coordinating the periodic reviews of the Emergency Plan. In addition, the Manager, Nuclear Emergency Preparedness, will ensure that elements of the emergency organization (e.g., FPL, state, federal, local, etc.) are informed of amendments and revisions to the Emergency Plan.

#### 7.3.2 Review of Changes by Onsite Personnel

Emergency Preparedness Supervisor will inform department training instructors of relevant changes in the Emergency Plan and Emergency Plan Implementing Procedures.

#### 7.3.3 Review of Changes by Corporate Personnel

Periodic correspondence and/or meetings will be held to inform Corporate FPL emergency support personnel of changes in the Emergency Plans and Emergency Procedures.

#### 7.3.4 Audits

An independent audit of emergency preparedness will be performed by the FPL Quality Assurance Department at least annually. Audits will verify compliance with federal regulations and Technical Specifications provisions.

Plant management, the Manager, Nuclear Emergency Preparedness, and the President, Nuclear Division will receive audit reports. Corrective actions, as delineated in the Quality Assurance Manual, will be assigned.

The audit findings will be retained for a minimum of five years.

### 7.3.5 Document Distribution

The Plant Site Services Manager is responsible for distribution of the Emergency Plan to onsite personnel. The Manager, Nuclear Emergency Preparedness is responsible for Emergency Plan distributions to offsite agencies and organizations. Appendix A (Florida Radiological Emergency Management Plan for Nuclear Power Plants) will be distributed to the TSC, EOF, Plant Document Control Center, and Manager, Nuclear Emergency Preparedness.

- Revisions to the Emergency Plan and Emergency Procedures will be distributed in accordance with plant procedures.

The Emergency Procedures provide sufficient information to assure a thorough understanding of the various emergency response duties and responsibilities. Appendix C contains a listing of the pertinent Emergency Procedures.

### 7.3.6 Emergency Planner Training

Most training of FPL emergency planners is through on-the-job training related to plan preparation, periodic revisions, drills and exercises for two nuclear facilities. Other training is received through seminars, meetings, and discussions with industry groups. FPL is a member of and participates in emergency planning programs sponsored by NUMARC, the Edison Electric Institute, and KMC, Inc.

### 7.4 Emergency Equipment/Maintenance

All emergency equipment/instrumentation that is maintained in the Control Room, TSC, OSC, and the field monitoring equipment located in the Florida City Substation will be inventoried, operationally checked, and inspected at least once each calendar quarter and following each use.

## APPENDIX A

### FLORIDA RADIOLOGICAL EMERGENCY MANAGEMENT PLAN FOR NUCLEAR POWER PLANTS

The Florida Radiological Emergency Management Plan for Nuclear Power Plants is maintained on file in the following locations:

- 1) Turkey Point Document Control Center
- 2) Technical Support Center
- 3) Emergency Operations Facility
- 4) Manager-Nuclear Emergency Preparedness (at Juno Beach)
- 5) Emergency Preparedness Supervisor (at Turkey Point)



APPENDIX B  
TECHNICAL SUPPORT AGREEMENT

Bechtel Power Corporation

Institute for Nuclear Power Operations

U. S. Coast Guard

Florida Highway Patrol

Monroe County Sheriff's Department

Metro-Dade County Fire Department

U. S. Department of Energy (Savannah River Operations)

Baptist Hospital of Miami, FL

Emergency Room Medical Associates, PA

U. S. Department of Energy (Oakridge Operations, REAC/TS)

B&W Nuclear Technologies



# Bechtel

NorthCorp Center, Suite 5001  
3950 RCA Boulevard  
Palm Beach Gardens, Florida 33410  
(407) 694-8400

May 27, 1992

Mr. G. A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division  
Florida Power & Light Company  
Post Office Box 14000  
Juno Beach, FL 33408

Emergency Response Assistance Agreement

Letter No. M-92-0032

Job No. 15841

Files: 0110, 15841

Reference: FPL letter JNO-EP-92-083, dated May 18, 1992

Dear Mr. Casto:

This letter summarizes Bechtel's commitments to provide assistance to Florida Power & Light Company in the event of a nuclear emergency at the Turkey Point or St. Lucie nuclear plants. Bechtel will provide services to FPL in accordance with the Emergency Response Assistance Agreement between FPL and Bechtel originally effective January 1, 1984 and subsequently amended June 19, 1987.

Upon notification from FPL's predesignated officials of an emergency, during or immediately after a nuclear incident, Bechtel will provide loaned employee assistance to FPL as expeditiously as practicable to supplement FPL's effort to manage and control the emergency. The loaned employee will be under the complete supervision, direction, and control of FPL.

Upon notification from FPL for Home Office emergency assistance in addition to the loaned employees, Bechtel will mobilize its home office facilities, including the Palm Beach Gardens office, and make available resources to provide engineering, procurement, construction and related technical services as requested by FPL.

Bechtel will respond to requests from FPL officials designated in Exhibit A-2 of the referenced agreement, or any FPL employee designated in writing by such officials. The administrative point of contact for any requests from FPL in this regard should be directed to my attention at the Palm Beach Gardens Office.

Enclosed is an update of Exhibit A-3 to the Emergency Response Assistance Agreement which identifies the names and home telephone numbers of the key response team members. Should you have any questions, please contact me at 407-694-8408.



**Bechtel Power Corporation** A unit of Bechtel Corporation

Mr. G. A. Casto  
M-92-0032  
Page 2 of 2

Sincerely,



R. E. Gallagher  
Project Manager

GSO:mtm

Enclosure: Exhibit A-3, Revised 5/92

cc: J. B. Hosmer w/l  
T. G. Kreinberg w/l  
R. Sipos w/l





# INPO

*Institute of  
Nuclear Power  
Operations*

700 Galleria Parkway  
Atlanta, GA 30339-5957  
404-644-8000  
FAX 404-644-8549

RECEIVED

April 23, 1993

APR 27 1993

Nuclear Licensing

Mr. Frank J. Varona  
Section Supervisor  
Nuclear Licensing Department  
Florida Power & Light Company  
P. O. Box 14000  
Juno Beach, FL 33408

Dear Mr. Varona:

This letter provides the annual certification of the emergency assistance agreement between INPO and its member utilities. In the event of an emergency at your utility, INPO will assist you in acquiring the help of other organizations in the industry, as described in Section 1 of the *Emergency Resources Manual* (INPO 86-032). In addition, INPO will provide assistance by using its own resources, as requested and as appropriate.

This agreement will remain in effect until terminated in writing. Please forward a copy of this letter to your emergency preparedness department for use in updating your emergency plan.

Should you have questions, please contact me at  
staff assistant - emergency preparedness, at

or

Sincerely,



John F. Groth  
Vice President and Director  
Analysis Division

JFG/tls

cc: Mr. Kenneth A. Strahm

that is activated when the INPO duty officer cannot immediately respond to telephone calls. If a message is left on the answering service and a timely response is not forthcoming, the INPO switchboard should be contacted at (404) 953-3600.

INPO will provide the following types of assistance upon request:

- o locating personnel with technical expertise at utilities
- o obtaining industry experience information on plant equipment through NPRDS
- o facilitating the flow of technical information from the affected utility to the nuclear industry

To support these functions, INPO maintains the following Emergency support capabilities:

- o a dedicated emergency notification system capable of reaching appropriate INPO staff members and responding to requests for assistance at any time
- o designated INPO representatives who can be dispatched to the utility to facilitate INPO assistance and information flow between the affected utility, INPO, and other utilities
- o a dedicated Emergency Response Center available to support INPO's emergency response organization at any time

During a Site Area or General Emergency, and after communication with the affected utility, INPO will determine whether an INPO liaison and other suitably qualified members of the INPO staff should be dispatched to the utility. INPO liaison and assistance personnel can be dispatched on approximately four hours notice. The liaison will report to one of the affected utility's emergency response facilities and serve as the communication link to INPO. The liaison will assist in coordinating INPO's response to the emergency as follows:



- o staffing a position responsible to the appropriate utility manager as liaison for all INPO matters
- o working with INPO personnel in Atlanta to coordinate responses to requests for assistance from INPO and other industry resources
- o assisting in responding to industry inquiries
- o facilitating transmittal of approved information to the industry via NUCLEAR NETWORK. INPO and the INPO on-site liaison will not release any information to others until it has been approved for release by an appropriate utility person in authority.

To facilitate assistance to the utilities, INPO has requested that all member utilities provide INPO with a controlled copy of their emergency plan.



U.S. Department  
of Transportation  
  
United States  
Coast Guard



Commander  
Seventh Coast Guard District

Brickell Plaza  
Federal Building  
909 SE 1st Avenue  
Miami, FL 33131-3050  
Staff Symbol: (re)  
Ph: (305) 536-5638

3000  
Ser: 209  
29 Jul 92

Mr. G.A. Casto, Nuclear Emergency Preparedness  
Nuclear Division  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

Dear Mr. Casto:

In response to your letter of 18 May 1992, the following updated information is provided. This update reflects no significant change from the information provided in our previous letter to FPL.

In a natural disaster, or whenever life, limb, or property is in danger or deemed to be in danger in the immediate future, under authority of Section 88 and 141, Title 14 U.S. Code, the U.S. Coast Guard will provide to any person or governmental authority any assistance that constitutes the rescue, aid or evacuation of persons in danger, and the protection of property threatened by any type of disaster. Among other things, this includes the transportation of personnel and materials to assist a disaster stricken area, and the search for and rescue of persons or vessels lost at sea during an emergency situation.

Our Disaster Preparedness Officer and administrative point of contact is Lieutenant (Junior Grade) Yamil Perez. He may be reached at (305) 536-5619.

The nearest Coast Guard facility to your St. Lucie plant is Coast Guard Station Ft. Pierce. Providing it is not engaged in some other life threatening emergency, its normal response time to the vicinity of the St. Lucie plant is between 30 and 45 minutes.

A normal response time for helicopters based at the Coast Guard Air Stations Miami and St. Petersburg, Florida, to the area in the vicinity of your St. Lucie plant is approximately 75 minutes.

The nearest Coast Guard facility to your Turkey Point plant site is Coast Guard Base Miami Beach. Its normal response time to the Turkey Point area is approximately 2 hours.

A normal response time for helicopters based at Coast Guard Air Station Miami, Florida, to the area in the vicinity of the Turkey Point plant is approximately 35 minutes.

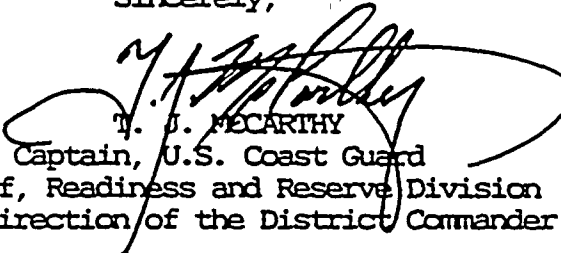
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Ser: 209  
29 Jul 92

If the need arises to obtain these support services, your first point of contact should be our district operations center at (305) 536-5611 or 6841. This 24 hour manned response center has been provided a copy of this letter of support.

Depending upon the seriousness of the emergency and the actions required, the Coast Guard could respond with a variety of additional assets. The type, quantity and arrival time of these assets would vary. Coast Guard response to any given emergency must be based on the operational priorities existing at that particular time.

Should you desire specific details of other Coast Guard forces in these areas that might be available to assist you, please contact Commander Rodney B. Bowles, my point of contact for this matter, at (305) 536-5639.

Sincerely,



T. J. MCCARTHY  
Captain, U.S. Coast Guard  
Chief, Readiness and Reserve Division  
By direction of the District Commander

Copy: (1) Deputy, Chief of Staff  
(2) Operations Center



Greg A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division JNO/JB  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408

Dear Mr. Casto;

I have reviewed the letter of agreement between Department of Highway Safety & Motor Vehicles and Florida Power & Light Company and confirm that the current letter of agreement, dated July 9, 1991 still applies as written.

  
\_\_\_\_\_  
Signature

6-12-92  
Date

The letter dated July 9, 1991, the contact is Capt. Morris Leggett at (904) 487-2714. All other material/procedures remain the same.



State of Florida  
DEPARTMENT OF  
HIGHWAY SAFETY AND MOTOR VEHICLES

LEONARD R. MELLON

Executive Director

Neil Kirkman Building, Tallahassee, Florida 32399-0500

LAWTON CHILES

Governor

JIM SMITH

Secretary of State

BOB BUTTERWORTH

Attorney General

GERALD LEWIS

Comptroller

TOM GA'LAGHER

Treasurer

BOB CRAWFORD

Commissioner of Agriculture

BETTY CASTOR

Commissioner of Education

July 9, 1991

Mr. G. A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division  
FLORIDA POWER & LIGHT COMPANY  
P. O. Box 14000  
Juno Beach, Florida 33408-0420

Dear Mr. Casto:

In response to your letter dated 06/19/91, enclosed are the following:

- (1) Policy #'s 16.09.00, 16.09.01 and 16.09.02 of the Florida Highway Patrol Manual will apply in cases of accidents or emergencies at the nuclear power plant.
- (2) Page 23 and 24 of the Florida Department of Law Enforcement's Florida Mutual Aid Plan is also applicable.

If you have any questions concerning these procedures, please contact Major Morris Leggett at (904) 488-5370.

If I can be of any further assistance, please advise me at (904) 488-4656.

Sincerely,

Nelda Parker  
Contract Administrator

NP:  
Attachment  
cc: Major Leggett



## 16.06.09 Special Response Team Manual

Members assigned to the Special Response Team shall be issued a Special Response Team Manual and shall be thoroughly knowledgeable of its contents.

## 16.06.10 Confidentiality of Special Response Team Activities

All Special Response Team activities, equipment, member rosters, training, Manual, and other related items are confidential and shall not be released without specific authority from the Director.

## 16.07.00 Emergency Roadblock Procedure

Members shall be thoroughly familiar with the Florida Highway Patrol roadblock procedure as outlined in the Division Forms and Procedures Manual, including implementation procedures and individual member responsibility. Members will follow those procedures to help ensure a coordinated, well disciplined effort to contain and apprehend dangerous felons.

## 16.08.00 Disasters and Plane Crashes

Any member gaining knowledge of a plane crash, disaster, or catastrophe in the area to which the member is assigned, shall take appropriate action to aid in handling the emergency and notify the immediate supervisor. In the case of a plane crash, Federal Aviation Authorities shall be notified via the Patrol duty officer or supervisor.

## 16.09.00 Hazardous Material Emergencies

Members may at any time be called upon to respond to an emergency involving hazardous materials. Members have the responsibility of responding in a prompt and efficient manner and doing so to ensure the safety of the public and themselves.

## 16.09.01 Hazardous Materials Procedures

A booklet titled Hazardous Materials (DOT P 5800.2), published by the United States Department of Transportation, has been issued to all members and is available in each radio room. It is the responsibility of each member to be familiar with this book as it is their guidebook for handling emergencies involving any incident involving hazardous materials.

## 16.09.02 Radioactive or Nuclear Materials Accident

The following notification procedure in this Chapter shall be followed in the event of a radiological accident within or affecting the state of Florida:

- A. In the event of an incident wherein the accidental release or spill, of radioactive material occurs, the responsible person or any other person aware of the

incident will notify by National Attack Warning System (NAWAS), telephone or other available means:

Duty Warning Officer  
State Warning Point Tallahassee  
Division of Disaster Preparedness  
Interim State Emergency Operating Center  
1720 South Gadsden Street  
Tallahassee, Florida 32301

NAWAS: "STATE WARNING POINT TALLAHASSEE"

Telephone:

OR

Duty Communications/Teletype Operator  
ALTERNATE STATE WARNING POINT TALLAHASSEE  
Division of Marine Resources  
Communications center  
202 West Blount Street  
Tallahassee, Florida 32301

NAWAS: "ALTERNATE STATE WARNING POINT  
TALLAHASSEE"

Telephone:

- B. In the event the STATE WARNING POINT TALLAHASSEE or the ALTERNATE STATE WARNING POINT TALLAHASSEE cannot be contacted by NAWAS or by telephone, the reporting individual will call:

The nearest Florida Highway Patrol Station, Sheriff's Office, County Civil Defense Office or Division of Disaster Preparedness Area Office, providing such information concerning the event for delivery by the most expeditious means to the Division of Disaster Preparedness.

#### 16.10.00 Requests for Nonemergency Special Operations With Other Law Enforcement Agencies

All requests for joint FHP/law enforcement agency operations will be submitted in writing to the appropriate Chief of Field Operations and will include a specific operational plan including staffing, potential for violence, background histories and any other information that is deemed appropriate. Routine requests for assistance not requiring significant manpower shall be approved by the Chief of Field Operations. Special operations requiring significant use of manpower, for example an SRT commitment, shall require the approval of the Director.

Management. The Department of Highway Safety and Motor Vehicles, Division of Florida Highway Patrol will provide resources to assist local governments according to the functional responsibilities outlined below. For each disaster function, one state agency will have primary responsibility and will provide both resources and leadership relating to that function.

Other agencies will be assigned supporting roles and will provide resources as required by the agency with the primary responsibility.

Functions ascribed to the Department of Highway Safety and Motor Vehicles and their corresponding assignments are as follows:

<u>FUNCTION</u>	<u>ASSIGNMENT</u>
Public Safety	Primary
Evacuation	Support
Hazard Litigation	Support

(NOTE: The Troop Commander shall ensure that each member is conversant with not only the directive concerning Hazardous Materials in the State Emergency Plan, but also the information contained in the DOT Publication 5800.3, entitled 1984 Emergency Response Guidebook, a Guidebook for Hazardous Materials Incidents.)

Search and Rescue	Support
Temporary Housing	Support
Training & Education	Support
(Public Information)	
Transportation	Support
Warning	Support

It shall be the responsibility of the Troop Commander to outline his responses to each of the aforementioned categories and maintain an up-to-date contingency plan for implementation. A copy will be maintained at the Troop level and the original filed with the respective Chief of Field Operations. The Troop Commander, or his designee, will man the Local Emergency Operations Center. Information gathered and Division services requested and rendered will be forwarded through channels to the Division Director.

The State Emergency Operations Center in Tallahassee will be manned by the Chief of Field Operations and Communications, or his designee(s), and it shall be his responsibility to serve as liaison between the Division of Florida Highway Patrol and the Division of Emergency Management. The Chief of Field Operations and Communications will continually apprise, via channels, the Division of current Division activities under way.

In the event additional manpower is needed from beyond Troop boundaries, the same procedures previously outlined for deployment of SRT's shall be initiated. Those policies that, by their very nature, are not applicable or impractical or cross-function shall be deleted.

It is the specific intent of this policy to utilize the SRT's throughout the state as the Division's primary front line response personnel to be mobilized and activated upon direction.

#### NUCLEAR POWER PLANT EMERGENCIES

Troop Commanders shall thoroughly familiarize themselves with selective excerpts from the Florida Radiological Emergency Management Plan for Nuclear Power Plants, provided by the Division of Emergency Management that are outlined below. Even though there may be no nuclear power facility in the



assigned troop. mobilization of the troop's SRT and deployment to an affected area is possible. Therefore, it is incumbent upon each Troop Commander not only to have a contingency support plan for deployment of their respective SRT, but more importantly to ensure that adequate information and education is given to personnel responding to such an emergency.

The Division's major responsibilities, as outlined in the aforementioned manual under "State Government Organizations and Responsibilities," are as follows:

J. Department of Highway Safety and Motor Vehicles

1. Director - Division of Highway Patrol

- a. Assist other law enforcement agencies in the movement of traffic during a radiological emergency as required.
- b. Assist other law enforcement agencies in policing disaster areas.
- c. Provide security and assist in staffing roadblocks to support county personnel who are involved in radiological emergency response operations.
- d. Provide communications assistance as required.

Each troop shall have a minimum of two personnel trained in radiological monitoring and be adequately equipped for immediate mobilization. These personnel shall consist of one supervisor and one trooper.

The procedures utilized, including activation, reporting, and chain of command notification in SRT responses shall apply to nuclear power plant emergencies, except those policies which, by their very nature, are not applicable or appropriate.

Each Troop Commander shall document their individual Troop's response, either primary or support, to the nuclear power plant emergency and shall maintain a copy of such contingency plan at Troop headquarters, with the original maintained by the Chief of Field Operations for the respective region.

It is imperative that a working knowledge be acquired and maintained concerning overall governmental responsibility to this type of emergency, an understanding of the diversity of governmental functions and where the Florida Highway Patrol, as a Division, fits into the overall scheme of events. With this concerted effort coupled with well-thought-out and maintained response plan, the Division's goals of professional deployment, stabilization and execution of assigned tasks and successful completion of assigned duties can be achieved.

CROWD CONTROL - FLORIDA STATE PRISON AT RAIFORD

The Division's concern is to provide services commensurate with statutory authority to assist in quelling any disturbances generated by a state-ordered execution.

It is imperative that each Troop Commander be thoroughly conversant with the current Department of Corrections memorandum concerning crowd control at executions.

The expressed intent of this policy is to establish our Division's SRT responsibilities when deployed to the Florida State Prison at Raiford pending a scheduled execution. Even though this is the only facility in the state that carries out executions, each Troop's SRT personnel should be apprised of and familiar with operational procedures established by the Department of Corrections.



# Sheriff



**RICHARD D. ROTH • SHERIFF OF MONROE COUNTY**  
530 WHITEHEAD STREET • KEY WEST, FLORIDA 33040  
(305) 296-2424 • FAX (305) 292-7070 • 1-800-273-COPS

## MEMORANDUM

**TO:** G. A. Casto  
Nuclear Emergency Preparedness  
Florida Power & Light Company

**FROM:** Mark L. Willis, General Counsel *MLW*

**RE:** Letter of Support

**DATE:** December 17, 1992

---

This memorandum will serve to confirm the understanding that the Sheriff of Monroe County stands ready to assist the Florida Power & Light Company in the event of an emergency at the Turkey Point Plant. The terms of our agreement are substantially the same as those contained in the letter of August 21, 1990, from Major Joseph Leiter to you. Please note that the Sheriff now has 186 sworn deputies and 99 reservists.

Feel free to contact me or anyone at this agency if we may be of any assistance to you in your plans.

MLW/jm





Greg A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division JNO/JB  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408

Dear Mr. Casto;

I have reviewed the letter of agreement between Metro-Dade Fire Department and Florida Power & Light Company and confirm that the current letter of agreement, dated January 22, 1991 still applies as written.

*M. Perry*  
Signature

5-25-92  
Date

Metropolitan Dade County, Florida  
Fire Department  
Office of the Fire Chief  
6000 S.W. 87th Avenue  
Miami, Florida 33173-1698  
(305) 596-8593



January 22, 1991

Mr. Jay J. Maisler, Emergency Planning Manager  
Florida Power & Light Company  
P. O. Box 140000  
Juno Beach, Florida 33048-0420

Dear Mr. Maisler:

Upon notification through emergency operators (911) of an incident at Florida Power & Light's Turkey Point Plant, The Metro-Dade Fire Department will respond with dispatch of appropriate fire and rescue units. A typical assignment would include 6 suppression vehicles (2 aerials and 4 pumpers), 2 rescue vehicles and supervisory units. The normal complement of personnel assigned to these units is 32. Additionally, we will dispatch our Hazardous Materials unit which specializes in incidents concerning hazardous materials and is equipped with sophisticated informational systems and equipment.

If conditions warrant, additional units would be dispatched including support units. The fire department emergency services include fire suppression, basic and advanced life support and related assistance. Personnel and equipment are obligated to implement provisions of the Turkey Point Radiological Emergency Plan to the extent of available resources.

If any further information is necessary please contact Chief Robert D. Paulison at (305) 596-8585.

Sincerely,

A handwritten signature in cursive script, reading "M. E. Perry".

M. E. Perry, Fire Chief  
Metro-Dade Fire Department



Department of Energy  
Field Office, Savannah River  
P.O. Box A  
Aiken, South Carolina 29802

JUN 08 1992

Mr. Greg A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division JNO/JB  
Florida Power and Light Company  
P. O. Box 14000  
Juno Beach, FL 33403

Dear Mr. Casto:

DEPARTMENT OF ENERGY (DOE) AGREEMENT FOR EMERGENCY SUPPORT, 8-23-91

This letter provides assurance that the subject agreement between DOE and Florida Power and Light Company remains in effect.

We understand your emergency preparedness plan requires formal agreements to be reviewed and updated on a periodic basis. The subject letter remains current; however, it should be noted that emergency management responsibilities have been transferred to the Radiation Protection and Emergency Management Division.

Request for DOE emergency radiological assistance may be directed to the Savannah River Site Operations Center at (803) 725-3333. This is our 24-hour emergency assistance telephone number.

Routine program questions may be directed to R. K. Roemmich of Westinghouse Savannah River Company at (803) 725-9105. Questions regarding DOE policy may be directed to Sherry L. Southern at (803) 725-4723.

Sincerely,

A handwritten signature in cursive script, reading "Randall J. Clendenning".

Randall J. Clendenning, Director  
Radiation Protection and Emergency  
Management Division

EMB:JLM:plw

Enclosure

cc: R. K. Roemmich, WSRC-EMD, 703-73A

Greg A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division JNO/JB  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408

Dear Mr. Casto;

I have reviewed the letter of agreement between Baptist Hospital of Miami and Florida Power & Light Company and confirm that the current letter of agreement, dated November 16, 1989 still applies as written.

Harry L. Watson  
Signature

5-29-92  
Date





**BAPTIST HOSPITAL  
OF MIAMI**

November 16, 1989

Jay J. Maislar  
Emergency Planning Manager  
Nuclear Energy Services  
Florida Power and Light  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

Dear Mr. Maisler:

As requested in your letter of October 20, 1989, the following is information stating our support, capabilities and resources available to you in the event of an emergency at one of your nuclear plants:

**1. Administrative point of contact:**

H. Richard Nateman, M.D., Medical Director  
Baptist Hospital of Miami Emergency Department  
8900 N. Kendall Drive  
Miami, Florida 33176  
Business hours: (305) 596-6589  
24 hours-seven days a week (305) 596-6558

**2. Descriptions of resources and support which can be provided:**

a. The following is contained in the "Scope of Services" portion of the Medical Support Agreement between Florida Power and Light and South Florida Emergency Physicians, P.A. (Physicians):

"Physicians shall provide the Facility (Baptist Hospital of Miami) such that it can perform as a principal radiological emergency medical facility for FPL's Turkey Point Plant for the diagnosis and treatment of injury accompanied by radiological contamination, or actual or alleged injury due to radiation exposure. Such facility shall also serve as a contingent radiological emergency facility for FPL's St. Lucie Plant.



Physicians shall have available at all times a minimum of one physician who has attended appropriate training courses for physicians conducted at the Oak Ridge Associated Universities' Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, Tennessee or at an equivalent facility, subject to FPL approval.

Physicians shall maintain plans, procedures and staff training programs for radiation casualty reception, diagnosis and treatment, and shall revise such plans and procedures as may be necessary to reflect changes in personnel and facilities and to conform to generally accepted modern standards. Plans, procedures, and training programs shall be reviewed and revised as significant changes occur but not less than annually and reviewed with FPL to assure a mutual understanding and accomplishment of emergency actions and objectives, and to assure coordination with the plans, procedures, and training programs of other medical facilities used by FPL. Copies of all plans and procedures, revisions thereto, and training attendance and critiques shall be furnished to FPL.

Physicians shall maintain their emergency plans, medical staff, and obligate the Facility to meet all applicable regulatory guidelines of the NRC and other governmental agencies having jurisdiction.

Physicians, at the request of FPL, shall provide a representative to attend meetings sponsored by the NRC or other agencies with regulatory or public responsibilities so as to obtain and describe to FPL the latest information available with regard to nuclear medical and health matters directly related to FPL medical plans for operation of its nuclear facilities. Reasonable and moderate travel and lodging expenses will be reimbursed by FPL.

FPL shall have the right to retain outside consultants (physicians or otherwise) to provide their services at the Physician's Facility, including evaluation and assistance with patient care to persons FPL has referred to Physicians for diagnosis and treatment. However, Physicians shall retain decision authority regarding the care and treatment of such patients, until such time as they are transported to another medical facility. Physicians shall cooperate and assist in the transport of patients.

Physicians shall conduct an emergency drill annually, or as requested by FPL, to assure proficiency of their personnel and adequacy of the Facility with regard to plans, procedures and equipment necessary to provide medical support as may be required, and shall permit FPL to observe such drill. FPL shall use reasonable efforts to have such drill held at times mutually convenient to the Physicians and FPL. Such drill will be coordinated with drills conducted by FPL. If a drill is deemed



unsatisfactory by FPL, the NRC or other governmental agencies having jurisdiction over FPL's plans, subsequent drills will be conducted until a satisfactory outcome is achieved as deemed by FPL, the NRC or other governmental agencies having such jurisdiction. Physicians shall, after each drill, prepare a critique and a written evaluation, and take corrective action, if necessary. However, it is understood that Physicians and Facility are engaged in the practice and provisions of emergency care, and any and all such drills shall be conducted in a manner not to interfere with rendering of care to its patients.

At the request of FPL, Physicians shall assist in FPL's First-Aid Training Course to include the treatment of traumatic injury accompanied by radionuclide contamination, and will observe and comment on the first-aid facilities at the Turkey Point Plant and the St. Lucie Plant including the proficiency of FPL's first-aid teams in the on-site treatment of contaminated casualties to off-site medical facilities.

Physicians shall provide a dedicated telephone at the Facility for FPL's use, assure that it is continuously monitored by a Facility staff member, and maintain the ability to report complete messages for emergency medical support personnel.

Physicians shall maintain a twenty-four hour per day duty roster of qualified physicians who shall be on-call and available in the event of an emergency.

At the request of FPL, Physicians shall provide consultation and testimony on nuclear medical matters related to the scope of this Agreement. Reasonable and moderate travel and lodging expenses, if any will be reimbursed by FPL.

At the request of FPL, Physicians shall admit FPL's personnel, such as health physicists, into the treatment rooms to assist and to provide information relevant to treatment and decontamination of patients. Physicians shall retain decision authority regarding the care and treatment of such patients.

Physicians shall provide emergency treatment and services without delay at the Facility or at the plants on a twenty-four hour per day, seven day per week basis, for FPL employees and any other person designated by FPL who may have been involved in a radiation incident.

In the event a situation occurs where the Facility is considered inadequate by Physicians because of the numbers, nature or severity of injuries sustained, injured persons may be referred, at FPL's expenses, to the Oak Ridge Associated Universities' Radiation Emergency



Assistance Center-Training Site (REAC/TS) in Oak Ridge, Tennessee, or upon FPL's approval, to other medical facilities for medical care.

Physicians shall perform special medical examinations and laboratory services related to the diagnosis and treatment of radiation injury and personnel contamination".

b. In the event that FPL requests treatment of an individual or individuals who are or may be contaminated with radioactive materials, as well as injured or who have been or may have been acutely overexposed to external radiations, Baptist Hospital of Miami will receive such individuals for treatment.

Relevant Baptist Hospital of Miami personnel will participate in annual training and exercises provided by and performed for FPL in conjunction with radiological emergency planning.

Physicians from South Florida Emergency Physicians, P.A. or from other prearranged, specified groups with an agreement for emergency services, be accorded roles by Baptist Hospital of Miami during radiological emergencies and exercises which are mutually consistent with Baptist Hospital of Miami's Major Disaster Plan and the agreement between said physicians and FPL.

Baptist Hospital of Miami will provide FPL's Corporate Radiation Emergency Planning with current updates of the Major Disaster Plan as they become available.

If either the Emergency Coordinator, or his designate notifies Baptist Hospital of an emergency at FPL's Turkey Point Plant, response will be as rapidly as reasonably possible. The following resources will be available as required by the situation:

**Personnel** - Emergency Department physicians and nursing personnel trained in Nuclear disasters, and hospital trained technicians from Nuclear Medicine.

**Facilities** - All facilities required to treat the radiation exposed or radioactive contaminated patient. (See Attachment #1).

**Vehicles** - The hospital has no vehicular facilities but can be in constant contact with Dade County Fire Rescue and emergency ambulance services.

Equipment - All equipment to treat regular and acute trauma. Also, specialized equipment furnished by FPL to treat the Radiological Emergency.

Communications - Telemetry with Dade County Fire Rescue, ambulance radio, and land phone. Also, availability of a ham operator in case of extreme emergency.


Also provided is hospital security and traffic control.

3. The process and procedure used to obtain support are contained in Baptist Hospital's Emergency Department Policy and Procedure Manual - Policy number 337.162 "Radiation Emergency Medical Plan". (See Attachment #2).

4.. Descriptions of the authorities, responsibilities, and limits of our actions are more fully described in the Medical Support Agreement between FPL and South Florida Emergency Physicians, P.A.

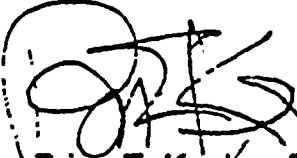
We will continue to cooperate in every way possible in the radiological emergency preparedness program. I believe the above explains our organization's capabilities in the event of an emergency, however, if there is anything further you require or if I can be of assistance in any way, please do not hesitate to contact me.

Sincerely,



H. Richard Nateman, M.D.  
President  
South Florida Emergency Physicians, P.A.

Medical Director  
Emergency Department  
Baptist Hospital of Miami



Brian E. Keeley, FACHE  
President  
Chief Executive Officer  
Baptist Hospital of Miami

# EMERGENCY ROOM MEDICAL ASSOCIATES

providing professional services at

## MERCY HOSPITAL EMERGENCY ROOM

3663 South Miami Avenue  
Miami, Florida 33133

Phone: 854-4400 ext 2171  
285-2174

Alfred Damus, M.D.  
Steven Ecker, M.D.  
Kenneth Rosenthal, M.D.  
John Marshall, M.D.

Ralph Stegemoller, M.D.  
Ivan Montoya, M.D.  
Jorge Amaya, M.D.  
Javier Anton, M.D.

July 20, 1992

Greg A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division JNO/JB  
Florida Power and Light  
P.O. Box 14000  
Juno Beach, FL 33408

Dear Mr. Casto:

As requested in your letter of May 18, 1992, the following is information stating our support, capabilities and resources available to you in the event of an emergency at one of your nuclear plants:

1. Administrative point of contact:

Alfred Damus, M.D., Medical Director  
Mercy Hospital Emergency Department  
3663 South Miami Avenue  
Miami, FL 33133  
Business hours: (305) 285-2174  
24 hours-seven days a week (305) 285-2171  
Beeper (305) 352-7133


2. Scope of Services:


- a) Physicians and Mercy Hospital shall perform radiological emergency medical services ("Services") for FPL's Turkey Point Nuclear Plant for the diagnosis and treatment of injury accompanied by radiological contamination, or actual or alleged injury due to radiation exposure.
- b) Physicians and Mercy Hospital shall maintain a twenty-four hour per day duty roster of qualified physicians who shall be on call and available in the event of an emergency.

- c) Physicians and Mercy Hospital shall provide emergency treatment and Services without delay at the Facility on a twenty-four hour per day, seven day per week basis, for FPL employees and any other person designated by FPL who may have been involved in radiation incident.

We will continue to cooperate in every way possible in the radiological emergency preparedness program. If there is anything further you require or if we can be of assistance in any way, please to not hesitate to contact us.

Sincerely,

  
Carter Jarrell  
Vice President, Patient Services  
Mercy Hospital

  
Alfred Damus, M.D., FACEP  
E.D. Medical Director  
Emergency Room Medical Associates

AD/disc 4







## Department of Energy

Field Office, Oak Ridge  
P.O. Box 2001  
Oak Ridge, Tennessee 37831—8610

June 5, 1992

Mr. G. A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division  
Florida Power and Light Company  
Post Office Box 14000  
Juno Beach, Florida 33408

Dear Mr. Casto:

### **RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE (REAC/TS)**

Please reference your letter of May 18, 1992, requesting that the Department of Energy (DOE) REAC/TS facility and team be available to provide back-up capability and assistance to the Florida Power and Light Company in the event of a radiological emergency. This response constitutes our agreement to provide this service upon your request.

We wish to remind you that our REAC/TS facilities are government controlled and operated by the Oak Ridge Associated Universities (ORAU) under contract with DOE. Therefore, REAC/TS is prohibited from competing with commercial firms which can provide radiological emergency services. Only if the magnitude or uniqueness of a radiological emergency exceeds your in-house and commercially available capabilities would REAC/TS be authorized to provide back-up services.

Since these facilities are government controlled, no fee or retainer is required to assure the availability of back-up services by REAC/TS. However, if you utilize the services of REAC/TS, we would expect to recover those costs which could reasonably be related to handling such an incident, including all charges billed to DOE or ORAU by hospitals and physicians. Information concerning the REAC/TS facilities, staff, services available, and procedures for seeking REAC/TS assistance can be obtained by direct contact with the REAC/TS Director, Dr. Robert C. Ricks, Oak Ridge Associated Universities, Post Office Box 117, Oak Ridge, Tennessee 37831, or telephone number (615) 576-3130.



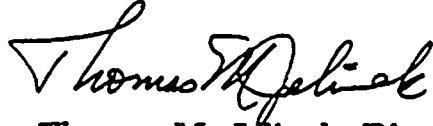
Mr. G. A. Casto

-2-

June 5, 1992

When referencing this document, please refer to document number 92-6555.

Sincerely,

A handwritten signature in cursive script, reading "Thomas M. Jelinek". The signature is written in dark ink and is positioned above the printed name and title.

Thomas M. Jelinek, Director  
Energy Programs Division

ER-113:Cunningham

cc:

Robert C. Ricks, ORAU





**B&W NUCLEAR TECHNOLOGIES**

3315 Old Forest F  
P.O. Box 103  
Lynchburg, VA 24506-0103  
Telephone: 804-385-2100  
Telecopy: 804-385-3100

June 8, 1992  
FPL-92-019

Mr. G.A. Casto  
Nuclear Emergency Preparedness  
Nuclear Division  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408-0420

Subject: Emergency Response Support

Reference: Master Services Agreement between Florida Power & Light and  
Babcock & Wilcox, B&W Contract 582-7455, dated March 13, 1985.

Dear Mr. Casto:

This letter is in response to your letter JNO-EP-92-083, dated May 18, 1992 and summarizes the B&W Nuclear Technologies' (BWNT) commitments to provide assistance to Florida Power and Light in the event of an emergency at your Turkey Point or St. Lucie Nuclear Plants. Services will be provided by BWNT to FP&L upon request and authorization by an official representative of FP&L in accordance with the above referenced Master Services Agreement.

The designated point of contact at the B&W Nuclear Service Company (BWNS) is W.F. Jones, the first alternate is D.C. Winterich, and second alternate is G.B. Beam, all located in the BWNS Lynchburg, Virginia office. The business and home phone numbers for these individuals are as follows:

		<u>Office</u>	<u>Home</u>
Primary Contact	William F. Jones	(804) 385-3720	(804) 384-9364
First Alternate	Donald C. Winterich	(804) 385-3519	(804) 385-9020
Second Alternate	George B. Beam	(804) 385-3434	(804) 525-3127

BWNT can provide engineering, technical support, and field services to assist FP&L in the management and control of an emergency.

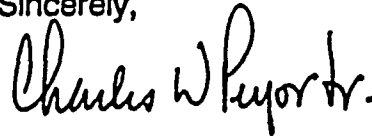


FPL-92-019  
June 8, 1992  
Page 2

Any requests to the BWNS point of contact from designated FP&L officials will be responded to as expeditiously as practical to support the FP&L needs.

Should you require any further clarification, please contact me at (804) 385-3259 in Lynchburg.

Sincerely,



C.W. Pryor  
President & CEO  
B&W Nuclear Technologies

CWP/lab

cc: GW Christman  
LH Bohn  
JR Bohart





## APPENDIX C

### LISTING OF EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPs)

#### PTN

EPIP-20101,	Duties of Emergency Coordinator
EPIP-20104,	Duty Call Notifications/Staff Augmentation
EPIP-20106,	Natural Emergencies
EPIP-20107,	Fire/Explosion Emergencies
EPIP-20110,	Criteria For, and Conduct of Owner Controlled Area Evacuation
EPIP-20111,	Re-entry
EPIP-20112,	Communications Network
EPIP-20126,	Offsite Dose Calculations
EPIP-20127,	Duties of the Assembly Area Supervisor
EPIP-20129,	Emergency Radiation Team Response - Offsite
EPIP-20130,	Emergency Radiation Team Response - Onsite
EPIP-20131,	Transfer of Contaminated, Injured Personnel Offsite
EPIP-20132,	Technical Support Center (TSC), Activation and Operation
EPIP-20133,	Operational Support Center (OSC), Activation and Operation
EPIP-20201,	Maintaining Emergency Preparedness Training - Radiological Emergency Plan

#### OFFSITE EMERGENCY ORGANIZATION

EPIP-1101,	Duties of the Emergency Control Officer
EPIP-1102,	Duties of the Recovery Manager
EPIP-1104,	Duties of the Emergency Security Manager
EPIP-1105,	Duties of the Emergency Technical Manager
EPIP-1106,	Duties of the Governmental Affairs Manager
EPIP-1107,	Duties and Responsibilities of the Emergency Planning Manager
EPIP-1108,	Duties of the Nuclear Division Duty Officer
EPIP-1211,	Duties of the Corporate Communications Emergency Response Organization (Turkey Point)
EPIP-1212,	Activation and Use of the Emergency Operations Facility (Turkey Point)
EPIP-1301,	Notification of Corporate Emergency Response Organization
EPIP-1302,	PTN/PSL Core Damage Assessment



APPENDIX C (continued)

LISTING OF EMERGENCY PLAN IMPLEMENTING  
PROCEDURES

OTHER PROCEDURES REFERENCED IN THE EMERGENCY PLAN

O-NCZP-094.1, Obtaining a PASS Sample During Emergency  
Conditions

O-NCZP-051.1, Obtaining a Containment Air Sample During  
Emergency Conditions



FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101  
MAY 20, 1993

*Superseded pages for  
R&V CP/MS  
50-250/251  
9402020323  
1/25/94*

1.0 Title:

DUTIES OF EMERGENCY COORDINATOR

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change dated: 5/20/93 Reviewed by Plant Nuclear Safety Committee: 93-122

and Approved by Plant General Manager 5/20/93

Period Review Due: 3/31/95 Implementation Date: 6/15/93

2.2 List of Effective Pages:

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
1	05/20/93	26	04/13/93	51	04/13/93	76	04/13/93
2	04/13/93	27	05/20/93	52	04/13/93	77	04/13/93
3	04/13/93	28	04/13/93	53	04/13/93	78	04/13/93
4	04/13/93	29	05/20/93	54	05/20/93	79	04/13/93
5	04/13/93	30	05/20/93	55	04/13/93	80	04/13/93
6	05/20/93	31	04/13/93	56	04/13/93	81	04/13/93
7	05/20/93	32	04/13/93	57	04/13/93	82	04/13/93
8	05/20/93	33	04/13/93	58	04/13/93	83	05/20/93
9	04/13/93	34	05/20/93	59	04/13/93	84	05/20/93
10	05/20/93	35	04/13/93	60	04/13/93	85	04/13/93
11	05/20/93	36	04/13/93	61	04/13/93	86	04/13/93
12	05/20/93	37	04/13/93	62	04/13/93	87	04/13/93
13	05/20/93	38	04/13/93	63	04/13/93	88	04/13/93
14	05/20/93	39	04/13/93	64	04/13/93	89	04/13/93
15	04/13/93	40	05/20/93	65	04/13/93	90	04/13/93
16	04/13/93	41	04/13/93	66	04/13/93	91	04/13/93
17	05/20/93	42	04/13/93	67	05/20/93	92	04/13/93
18	04/13/93	43	04/13/93	68	04/13/93	93	04/13/93
19	04/13/93	44	04/13/93	69	05/20/93	94	04/13/93
20	04/13/93	45	04/13/93	70	04/13/93	95	04/13/93
21	04/13/93	46	04/13/93	71	04/13/93	96	04/13/93
22	04/13/93	47	04/13/93	72	04/13/93	97	04/13/93
23	04/13/93	48	04/13/93	73	04/13/93		
24	04/13/93	49	04/13/93	74	04/13/93		
25	05/20/93	50	04/13/93	75	04/13/93		

This procedure may be affected by an O.T.S.C. (On The Spot Change) verify information prior to use.  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_

RTSs 86-1584, 87-0332, 87-1665, 87-2051, 88-0761, 89-0622, 89-1733, 89-1793, 89-3433  
RTSs 90-0402, 90-2294, 90-2941, 90-2952, 91-0483, 91-1226, 91-2427, 91-2117, 92-0109  
RTSs 91-3106, 93-0501, 93-0275  
OTSC 4660

PC/MS 92-004



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 2  
DUTIES OF EMERGENCY COORDINATOR

3.0 Scope:

3.1 Purpose:

- 3.1.1 This procedure provides the guidelines to be followed by the Emergency Coordinator when an emergency occurs that requires initiation of the Emergency Plans.

3.2 Discussion:

- 3.2.1 This procedure provides guidance for actions that the Emergency Coordinator will take in a plant emergency.
- 3.2.2 For planned evolutions such as safeguards, this procedure does not apply. However, if a deviation from the planned evolution (i.e., any unplanned evolution) occurs, this procedure should be consulted.
- 3.2.3 The Nuclear Plant Supervisor becomes the Emergency Coordinator upon declaration of an emergency and, as such, directs the On Site Emergency Organization actions to bring the emergency under control. A member of the plant management staff may later assume the role of Emergency Coordinator when he/she reaches the Control Room or TSC and becomes familiar with the emergency. The Nuclear Plant Supervisor will then concentrate on control of the units.
- 3.2.4 During an emergency of Alert or higher, the Emergency Coordinator should confer with the TSC Security Supervisor concerning the impact of the emergency on plant security. During an emergency of Site Area Emergency or higher, and dependent on the degree of airborne release, the TSC Security Supervisor may recommend a complete or partial suspension of safeguards which may include (but is not limited to) any of the following:

NOTE: Vital area doors unlocked by the computer will relock automatically after they are closed.

1. Unlocking vital area doors through the security computer.
  2. Suspension of designated security patrols or activities.
  3. Maintenance of Protected Area access control only (suspension of all field patrols).
  4. A partial evacuation of on-duty Security personnel.
  5. Closing one or both Alarm/Communications Stations (CAS/SAS).
  6. Complete suspension of site security safeguards.
- 3.2.5 The titles Nuclear Energy Duty Officer, and Nuclear Division Duty Officer are used interchangeably.





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 3  
DUTIES OF EMERGENCY COORDINATOR

- 3.2.6 Classifying Simultaneous Emergencies: Emergency classifications based on simultaneously occurring events affecting each unit independently (e.g., LOCA on Unit 3 and Tube Rupture on Unit 4) shall be made based on the most severe event, and reported as the classification for the site. With multiple events occurring, only one emergency classification shall be made.

One of the primary reasons for the declaration and notification process is to prompt local, state, and federal government agencies to initiate actions to assure the health and safety of the public. The government agency response is based on an event affecting either unit at a multiple unit site, such as PTN. Therefore, the government agency's actions will address the most severe classification issued by the site, and having multiple classifications would only confuse the response. Examples regarding this issue are provided below.

1. If Unit 3 is in a classified event (an Alert for example), and another event of the same or lesser classification (e.g., an Unusual Event or Alert) occurs on Unit 3 or Unit 4, then a new event classification should NOT be made, and the event notification should be issued as an update at the earliest practical time. No regulatory time limits apply to this update.
2. If Unit 3 is in a classified event (an Alert for example), and another event of higher classification (Site Area or General Emergency) occurs on either Unit 3 or Unit 4, then the new classification should be promptly issued to the State and NRC within the regulatory time requirements.
3. The State of Florida Notification Message Form should indicate the unit for which the event is declared. If the event is common to both units, Unit 3 should be marked as the affected unit.

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 4  
DUTIES OF EMERGENCY COORDINATOR

3.3 Authority:

3.3.1 Turkey Point Plant Radiological Emergency Plan

3.4 Definitions - for Emergency Action Level Classification and Radiological Emergency Planning, the following definitions apply:

3.4.1 Hot Ring Down Telephone (HRD) - the dedicated link between State/Local agencies and Turkey Point.

3.4.2 Emergency Notification System (ENS) - the circuit tying the NRC and Turkey Point.

3.4.3 Local Government Radio (LGR) - the communications network used as a backup to the HRD.

3.4.4 State of Florida Notification Message Form - the form used to initiate, update, and terminate emergency notifications to State/Local agencies.

3.4.5 National Warning System (NAWAS) - the communications network used as a backup when the HRD, and commercial phones are not available.

3.4.6 Power Block - structures comprising all permanent nuclear, power generation, and cooling structures, systems, and components within the Protected Area; and permanent Safety Related or Quality Related utilities (e.g. air, water, and and electric) both inside and outside the Protected Area.

3.4.7 Emergency - Any off-normal event or condition which is classified into one of the four event categories in Table 1 of this procedure.

3.4.8 Onsite - within the Protected Area.

3.4.9 Offsite Power - power supplied from the grid through the Startup or Auxiliary Transformers (backfeed), or power supplied by the Auxiliary Transformer during normal operation.

3.4.10 Unrestricted Area - as defined in Technical Specifications.

3.4.11 Onsite Power - Power supplied by any of the four emergency diesel generators.

3.4.12 Owner Controlled Area - That portion of the FPL property surrounding and including the Turkey Point Plant which is subject to limited access and control as deemed appropriate by FPL.

3.4.13 Release - During any declared emergency any effluent monitor increase of approximately 10 times/one decade above pre-transient values, or Health Physics detected airborne radioactivity levels in excess of 25 percent MPC outside of plant buildings due to failure of equipment directly associated with the declared plant emergency.

3.4.14 Site Boundary - land areas within a one mile radius of the affected unit.

3.4.15 Emergency Response Directory (ERD) - the directory containing names and phone numbers of Emergency Response Organization personnel.



4.0 Precautions:

- 4.1 The Emergency Coordinator (EC) can delegate his responsibilities to his subordinates with the exception of classification, the decision to notify state and local authorities and the issuing of Protective Action Recommendations. The actual notification can be done by the ECs designee. Notification to offsite agencies and PARs become the responsibility of the Recovery Manager when the EOF is manned and operational. The EC documents his decision to notify state and local authorities and his concurrence with PARs by initialing the State of Florida Notification Message Form.
- 4.2 During exercises, drills or tests, ALL MESSAGES shall begin and end with "THIS IS A DRILL".
- 4.3 In any case where a GENERAL EMERGENCY has been declared, the minimum protective action recommendation shall be: "Shelter all people within a 2 mile radius from the plant and 5 miles in the downwind sectors" (except as delineated in Section 4.4).
- 4.4 If the GENERAL EMERGENCY has been declared due to loss of physical control of the plant to intruders, including the Control Room or any other area(s) vital to the operation of the reactor system (as defined in the Security Plan), the minimum Protective Action Recommendation (PAR) shall be: "Evacuate all people within a 2 mile radius from the plant", and determine 2-5 and 5-10 mile PARs on other existing General Emergency Conditions (there may be no 2-5 and 5-10 mile PARs based on conditions).
- 4.5 Plant conditions, plume dose projection calculations, (from EPIP-20126, Offsite Dose Calculations), and offsite monitoring results should be evaluated when making Protective Action Recommendations. If significant discrepancies exist between field monitoring results and plume dose projection calculations, an evaluation should be made, and the most conservative approach used in the determination of Protective Action Recommendations.
- 4.6 Protective Action Recommendations for a child (most conservative considerations) have been incorporated into Table 2, "Protective Action Recommendations Based on Plant Conditions and Offsite Dose Estimates."
- 4.7 If a condition which meets the Unusual Event or Alert criteria of the Emergency Classification Tables is identified and subsequently rapidly resolved, the emergency classification shall be declared and immediately terminated. All required notifications shall be completed. Activation of the Onsite Emergency Response Facilities is not required.
- 4.8 If a condition which meets the Site Area Emergency or General Emergency criteria of the Emergency Classification Tables is identified and subsequently rapidly resolved, the emergency shall be declared and all notifications completed. De-escalation from the Site Area Emergency and General Emergency classifications may only be authorized by the Emergency Control Officer.



5/20/93

- 4.9 Protective Action Recommendations based upon offsite dose calculations shall be determined by comparing projected offsite doses to the action levels in Table 2. If the period of exposure is expected to be less than two hours the doses should be projected for the expected duration of the exposure. For longer duration exposures, the offsite doses should be projected for two hours and PARs should be based upon the two hour projections. Protective Actions for the child are incorporated into PARs listed in this procedure.
- 4.10 The Emergency Coordinator responsibilities shall reside with the E.C. in the Control Room until they have been formally transferred to the E.C. in the TSC.
- 4.11 Emergency notification to State/Local agencies is required within 15 minutes of declaring an emergency.
- 4.12 Emergency notification to the NRC is required immediately following notification of State/Local agencies, but not later than 1 hour from the declaration of an emergency.
- 4.13 If, during the notification process, it becomes necessary to upgrade the emergency classification, stop the current notification process, and proceed to make notification of the new classification.
- 4.14 Plant Page Announcements
- 4.14.1 PA messages to site personnel do not have to be made verbatim; they are "example" messages only.
- 4.14.2 Announcements may NOT be made or may be modified as directed by the Emergency Coordinator, or his designee, if it is determined that such announcements may cause intruders to panic or make them aware of plant/security personnel responses in regard to security related events.
- 4.14.3 Important plant page announcements (such as changes in classification or plant status) should be made firmly, clearly, and distinctly so that the message can be heard throughout the plant.
- 4.14.4 The Page Volume Boost feature should be used when making EMERGENCY ANNOUNCEMENTS from the Control Room. By pressing and holding the pushbutton on the console in the NPS Observation Cubicle or on the RCOs desk, the Page System speakers will broadcast at maximum volume, and the blue, high intensity strobe lights will be activated. Release the pushbutton when the announcement is complete.
- 4.15 The Emergency Coordinator has the authority to waive individuals emergency response training requirements, as needed.





- 4.16 Procedural notification steps may be performed out of sequence in order to meet State of Florida and/or NRC notification time requirements.
- 4.17 Alternate commercial telephone numbers for State of Florida and NRC notification are listed in the Emergency Response Directory (ERD).
- 4.18 Collection of Release Rate Data shall not delay State of Florida and NRC notifications. If the data is not available, notification shall be made and followed up as soon as the information is available.

4.19 Evacuations and Emergency Response Facility (ERF) Activation

4.19.1 The Emergency Coordinator shall consider plant and radiological conditions as they relate to the emergency prior to ordering an evacuation or activation of ERF. As conditions warrant, the Emergency Coordinator may delay, postpone or make special requirements on the evacuation and/or ERF activation. Some examples of special circumstances are as follows:

- 1. Radiological conditions (puff releases) when large doses may be received during an evacuation.
- 2. Security events when unknown hazards or dangers (i.e., armed intruders, bomb threats, etc.) are perceived.
- 3. Plant conditions where additional personnel are necessary to put the plant in a safer configuration (i.e., equipment hatch open, primary system open for repair, etc.)
- 4. Onsite hazards such as toxic gas, fires, or explosions where the movement of personnel would be placing them in additional risk.
- 5. Risks to plant personnel due to the inability to use the evacuation route (construction, traffic accidents, etc.).
- 6. Other similar events.

4.19.2 The Emergency Coordinator should consider the emergency event prior to determining if special instructions for evacuation and/or ERF activation should be given.

- 1. If the emergency involves a radiological release or potential release, special instructions should consider:
  - a. duration of the release,
  - b. plant conditions,
  - c. meteorological conditions,
  - d. evacuation route availability, and
  - e. other information pertinent to the release.



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 8  
DUTIES OF EMERGENCY COORDINATOR

2. If the emergency involves a security event which may threaten plant/emergency response personnel, special instructions should consider:
  - a. location of intruders,
  - b. bomb threat location, and
  - c. other information pertinent to the security threat.
3. If the emergency involves both radiological and security events, a combination of the above considerations should be used when developing special instructions.
4. Special instructions regarding evacuation and/or ERF activation should consider:
  - a. retention of additional essential repair personnel,
  - b. alternate evacuation/ERF activation routes/facilities,
  - c. in-place/onsite sheltering of non-essential personnel, and
  - d. use of security force personnel in directing evacuees/emergency response personnel to the appropriate routes and locations.

5.0 Responsibilities:

- 5.1 The Nuclear Plant Supervisor (NPS) assumes the responsibilities of the Emergency Coordinator in the initial phases of a plant emergency. If the Nuclear Plant Supervisor (NPS) is incapacitated, the Emergency Coordinator shall be (in order of succession):
- 5.1.1 Assistant Nuclear Plant Supervisor
  - 5.1.2 Nuclear Watch Engineer
  - 5.1.3 Any other member of the plant staff with an active Senior Reactor Operator license.
  - 5.1.4 One of the Reactor Control Operators on shift.
- 5.2 A member of the Plant Management staff may later assume Emergency Coordinator (EC) duties when he/she reaches the Control Room or TSC and becomes familiar with the emergency. The NPS will at that time return to the normal responsibility of control of the units. Turnover between ECs should be performed in the Control Room if possible, with the new EC taking the Emergency Log Book to continue records of the event.
- 5.3 The Emergency Coordinator shall only grant permission for watch relief, including his own, when a proper turnover has been given and in his judgment, it is safe to do so.
- 5.4 The Emergency Coordinator shall authorize any radiation exposures in excess of regulatory limits. This authorization should be in accordance with EPIP-20111, Reentry. Authorization should be given only after consultation with the TSC Health Physics Supervisor and the Recovery Manager, if time permits. Previous written authorization is not required for rescue of personnel.
- 5.5 The Emergency Coordinator shall authorize personnel exposures in excess of regulatory limits only for volunteers who are familiar with the risks involved and the tasks to be performed. Women capable of reproduction shall not take part in these actions.



6.0 References:

- 6.1 O-ADM-048, Work Controls During Power Operations
- 6.2 O-ONOP-016.10, Pre-Fire Plan Guidelines and Safety Shutdown Manual Actions
- 6.3 AP-0103.12, Notification of Events to the NRC
- 6.4 AP-0103.43, Duty Call Responsibilities
- 6.5 EPIP-20104, Notification/Staff Augmentation
- 6.6 EPIP-20106, Natural Emergencies
- 6.7 EPIP-20107, Fire/Explosion Emergencies
- 6.8 EPIP-20110, Criteria for and Conduct of Owner Controlled Area Evacuation
- 6.9 EPIP-20111, Reentry
- 6.10 EPIP-20126, Offsite Dose Calculations
- 6.11 EPIP-20131, Transfer of Contaminated Injured Personnel Offsite
- 6.12 Turkey Point Plant Radiological Emergency Plan
- 6.13 Emergency Response Directory
- 6.14 10 CFR 50.47, Emergency Plans
- 6.15 10 CFR 50, App. E, Emergency Planning and Preparedness for Production and Utilization Facilities
- 6.16 NUREG-0654
- 6.17 Security Force Instruction 6307, Emergency Evacuation
- 6.18 PC/M 92-004, Upgrading Plant Page Audibility

7.0 Records and Notifications:

- 7.1 The following documents are generated as a result of this procedure:
  - 7.1.1 Completed checklists and worksheets on forms similar to the forms in this procedure from this procedure utilized by the Emergency Coordinator during the implementation of the Emergency Plan.
  - 7.1.2 The Emergency Log Book
- 7.2 Copies of the records of 7.1.1 and 7.1.2 shall be transmitted to the Emergency Preparedness Supervisor. Originals shall be submitted as QA records to be retained in accordance with Quality Assurance Program requirements.



5/20/93

8.0 Instructions:

8.1 Fire/explosion emergency? Yes/No

8.1.1 If NO, proceed to Step 8.2.

Time

8.1.2 Fire/explosion reported

Location \_\_\_\_\_

Class (if known) A / B / C / D (see note below)

Injured personnel should be handled in accordance with Section 8.2.

Extent of damage to plant components \_\_\_\_\_

NOTE: Fire Classes:

A - wood, paper, cloth, rubber

B - combustible liquids, gases, greases

C - electrical related (involving energized equipment)

D - combustible metals

8.1.3 Make the following announcement using the Page Volume Boost: |

"Attention all personnel. There is a reported class (if known) \_\_\_\_\_ fire/explosion in Unit (3 or 4) \_\_\_\_\_ (location) \_\_\_\_\_. All personnel in the fire/explosion location withdraw to a safe area. All Fire Brigade members report to (location of fire/explosion) \_\_\_\_\_."

8.1.4 Sound fire alarm.





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 12  
DUTIES OF EMERGENCY COORDINATOR

5/20/93

Time  
\_\_\_\_\_

- 8.1.5 Follow alarm with page announcement using the Page Volume Boost: |

"Attention all personnel. There is a reported class (if known) \_\_\_\_\_ fire/explosion in Unit (3 or 4) \_\_\_\_\_ (location) \_\_\_\_\_. All personnel in the fire/explosion location withdraw to a safe area. All Fire Brigade members report to (location of fire/explosion) \_\_\_\_\_."

CAUTIONS:

- Alarming dosimetry is available for Fire Brigade members to monitor direct radiological exposure. The air sampler located in the Fire Locker in the Auxiliary Building hallway is also available to assess airborne activity.
- It may be necessary to relieve the Health Physics Fire Team members with other qualified Fire Brigade members in order to ensure additional Health Physics support.

- 8.1.6 Reference O-ONOP-016.10, Pre-Fire Plans Guidelines and Safe Shutdown Manual Actions, as time permits and as necessary to aid Fire Brigade with area characteristics and aid Operations with safe shutdown actions.

- 8.1.7 Verify accountability with Security, if applicable. Direct Fire Brigade Leader to search for missing, if necessary.

CAUTION:

Due to minimal Contract Medical Response Staff of one (1) individual on back shifts and weekends, manpower requirements should be monitored by the Control Room.

- 8.1.8 Verify Contract Medical personnel dispatched to the vicinity of the fire scene.

- 8.1.9 Contact additional fire support if needed. See phone numbers listed in the Emergency Response Directory.

- 8.1.10 Inform Security of the pending arrival of offsite assistance if requested.

- 8.1.11 Classify fire/explosion per Table 1, and perform Subsection 8.2 if injuries occur or have occurred.



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 13  
DUTIES OF EMERGENCY COORDINATOR

5/20/93

Time

8.2 Medical Emergency? Yes/No

8.2.1 If NO, proceed to Step 8.3.

8.2.2 Medical Emergency reported

Name of victim \_\_\_\_\_  
Employer \_\_\_\_\_  
Location of victim \_\_\_\_\_  
Nature/extent of injuries \_\_\_\_\_  
Fractures? \_\_\_\_\_  
Burns? \_\_\_\_\_  
Hemorrhages? \_\_\_\_\_  
Is victim potentially contaminated? \_\_\_\_\_

8.2.3 Activate First Aid Team by contacting Chemistry personnel and Contract Medical Response Personnel. Provide Operations Department assistance as needed.

1. Make the following announcement twice using the Page Volume Boost:

"Attention all personnel. There is a reported medical emergency in Unit (3 or 4) \_\_\_\_\_ (location) \_\_\_\_\_. All personnel in the immediate area stand clear. All First Aid Team members report to (location) \_\_\_\_\_."

2. Contact Security for contract medical assistance entry to the Protected Area.

8.2.4 Notify Health Physics if injury is inside the RCA.

1. If the injured is also contaminated or potentially contaminated, ensure EPIP-20131, Transfer of Contaminated Injured Personnel Offsite is performed.

8.2.5 Request offsite medical assistance if needed. See phone numbers listed in the Emergency Response Directory.

NOTE: Metro Dade Fire/Rescue is the primary responder for offsite medical assistance transportation, and their personnel are trained in response to contaminated injured personnel. Randal Eastern Ambulance Service will be requested by Metro Dade Fire/Rescue dispatchers, if necessary.

1. Metro Dade Fire/Rescue

2. U.S. Coast Guard

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8.2.6 Inform Security of the pending arrival of offsite assistance.

8.2.7 Transport victim to hospital if necessary.

8.2.8 If POTENTIALLY CONTAMINATED, notify receiving hospital. See phone numbers listed in the Emergency Response Directory.

1. Notify Baptist Hospital

or

2. Notify Mercy Hospital

or

CAUTION: REAC/TS should only be utilized if Baptist Hospital and/or Mercy Hospital requires additional assistance or cannot support the treatment of the patient. The patient should be stabilized by Baptist or Mercy and arrangements should be made with REAC/TS prior to transport.

3. Notify REAC/TS, Oak Ridge, TN for additional assistance, if necessary, or if Baptist Hospital and/or Mercy Hospital cannot support injury.

8.2.9 Relay information above of potentially contaminated injury (Step 8.2.2) to hospital notified in 8.2.8 and report:

Contamination Levels and Body areas affected \_\_\_\_\_

Radioisotopes involved \_\_\_\_\_

Type of transport vehicle \_\_\_\_\_

Departure time from plant \_\_\_\_\_

8.2.10 IF NOT CONTAMINATED:

Notify receiving hospital. See phone numbers listed in the Emergency Response Directory.

1. South Miami Homestead Hospital

2. Deering Hospital

3. Jackson Memorial Hospital

and report:

Injury information in Step 8.2.2 and:

Type of transport vehicle \_\_\_\_\_

Departure time from plant \_\_\_\_\_

8.2.11 If contaminated and transported offsite, classify Medical Emergency per Table 1.

8.2.12 Obtain status of victim after transport, as required.

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Time

8.3 Mitigating Actions and Classification of Off-Normal Event

8.3.1 Direct initial investigative and mitigating actions to correct Off-Normal event.

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator, or his designee, to prevent alarming intruders if security events warrant.

8.3.2 Direct Chemistry Personnel to implement EPIP-20126, Offsite Dose Calculations if a Release (see definitions) is in progress.

NOTES: ° For planned evolutions such as safeguards testing, this procedure does not apply with regard to the actuation of safeguards equipment. However, if a deviation from the planned evolution occurs, this procedure should be consulted for event classification.

° If simultaneous emergencies occur at the site, the Emergency Classification shall be made based on the most severe condition at the site. Refer to the Discussion, Section 3.0 for further guidance regarding classification of simultaneous emergencies.

° If conditions meeting the Emergency Classification criteria are known to have existed but have been terminated, proceed with required classification and notification activities. An Unusual Event or Alert may be terminated by the Emergency Coordinator. A Site Area Emergency or General Emergency may only be de-escalated by the Emergency Control Officer. Activation of the Onsite Emergency Response Facilities is not required for events that have been terminated by the responsible official.

° If the event does not qualify as an Emergency per Table 1, proceed to AP-0103.12 "Notification to NRC of Significant Events" Appendix A and Appendix C for further classification of event.

8.3.3 Classify Off-Normal event using present available information. Declare most conservative emergency class using Table 1 and proceed to step number and page listed on bottom of Table 1.



TABLE 1

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1. Primary Depressurization - ECCS Initiated Manually or Automatically			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Safety Injection initiated <u>AND</u> High-head SI pump flow to the core			
Possible Control Room Indicators			
FI-943			

**ACTION**

Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.
--	--	--	--





TABLE 1

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2. Primary Leakage/LOCA			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1-2-3-4 <u>AND</u> Either A or B: A. RCS Leakage in excess of Technical Specifications 3.4.6.2, Reactor Coolant System Operational Leakage as indicated by either: 1) Unidentified RCS Leakage > 1 gpm, <u>OR</u> 2) Identified RCS Leakage greater than ten (10) gpm, <u>OR</u> 3) RCS Pressure Isolation Valve Leakage greater than allowable, <u>OR</u> 4) Any Pressure Boundary Leakage ----- B. Failure of any primary system safety or relief valve to close resulting in an uncontrolled RCS depressurization.	Plant in Mode 1-2-3-4 <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage within available charging pump capacity <b>CAUTION:</b> This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator.	Plant in Mode 1-2-3-4 <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity <b>CAUTION:</b> This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator.	Either A or B: ----- A. RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity <u>AND</u> Containment pressure > 20 psig <b>CAUTION:</b> This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator. ----- B. Plant in Mode 1, 2, 3, 4, <u>AND</u> RCS leakage > 50 gpm <u>AND</u> RCS leakage greater than available charging pump capacity <u>AND</u> Loss of containment integrity which provides a flowpath to the environment. <b>CAUTION:</b> This section should not be used for events involving only a steam generator tube leak/rupture, or only a faulted/ruptured steam generator ----- <b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.
Possible Control Room Indicators			
TI-465, 467, 469 TEC Flow Indicators	Charging/Letdown Flow Mismatch	RCS pressure Containment Pressure ARM's Charging/Letdown Flow Mismatch	RCS pressure Containment Pressure PRMS R-14
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



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3. Steam Generator Tube Leak/Rupture			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Either A or B:</p> <p>A. Greater than 500 gpd steam generator tube leakage to any one steam generator per Technical Specification 3.4.6.2, Reactor Coolant System</p> <p>-----</p> <p>B. Greater than 1 gpm total steam generator tube leakage per Technical Specification 3.4.6.2, Reactor Coolant System</p>	<p>Either A or B:</p> <p>A. Confirmed steam generator tube leakage &gt; 50 gpm AND Steam generator tube leakage within available charging pump capacity AND Loss of offsite power</p> <p>-----</p> <p>B. Steam generator tube leakage greater than available charging pump capacity.</p>	<p>Steam generator tube leakage greater than available charging pump capacity AND Loss of offsite power</p> <p>CAUTION: Consult Table 2, Page 36 for possible protective action recommendations</p>	
Possible Control Room Indicators			
PRMS R-15 PRMS R-19	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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4. Loss of Secondary Coolant			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Either A or B:  A. Steamline or feedline break which results in Safety Injection actuation.  -----  B. Failure of a steam generator safety or steam dump to atmosphere valve to close resulting in uncontrolled secondary depressurization.	Steamline or feedline break which results in Safety Injection actuation <b>AND</b> Evidence of significant (> 10 gpm) steam generator tube leakage in the affected steam generator.	Steamline or feedline break which results in Safety Injection actuation <b>AND</b> Confirmed RCS DEQ I-131 activity $\geq 300 \mu\text{Ci/gm}$ <b>AND</b> Confirmed steam generator tube leakage > 50 gpm in the affected steam generator  <b>CAUTION:</b> Consult Table 2, Page 36 for possible protective action recommendations	
Possible Control Room Indicators			
	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	PRMS R-15 PRMS R-19 Charging/Letdown Flow Mismatch	
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

TABLE 1

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5. Abnormal RCS Temperature and/or Pressure			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1 - 2 - 3 - 4:  Either A, B, or C <u>AND</u>  A. RCS saturated or superheated ----- B. RCS pressure > 2510 psig ----- C. RCS pressure and /or temperature above Technical Specification 3.4.9, Pressure/ Temperature Limits			
Possible Control Room Indicators			
Subcooling Margin Monitor			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



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6. Fuel Handling Accident			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	A spent fuel element has been dropped or damaged <b>AND</b> Release of radioactivity from the damaged spent fuel element has been detected.	<p>Either A, B or C:</p> <p>A. Major damage to one or more spent fuel elements has occurred <b>AND</b> Affected area radiation monitors are <math>&gt; 10^3</math> mR/hr.</p> <p>-----</p> <p>B. Major damage to one or more spent fuel elements has occurred <b>AND</b> Containment radiation levels <math>&gt; 1.3 \text{ E4 Rem/hr}</math></p> <p>-----</p> <p>C. Major damage to one or more spent fuel elements due to water level being below top of spent fuel.</p>	
Possible Control Room Indicators			
	ARMS R-2, 5, 7, 8, 19, 21, 22 PRMS R-12, 14	ARMS R-2, 5, 7, 8, 19, 21, 22 PRMS R-12, 14 SFP Level Indication RI-6311A RI-6311B	
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



**TABLE 1**  
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**7. Loss of Safe Shutdown Functions/ATWS**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>Either A, B, C or D:</p> <p>A. Reactor critical <b>AND</b> Failure of the Reactor Protection System to initiate a trip signal when a trip setpoint has been exceeded.</p> <p>B. Reactor critical <b>AND</b> Reactor fails to trip on automatic signal</p> <p>C. Reactor critical <b>AND</b> Reactor fails to trip on manual signal</p> <p>D. RCS temperature increasing due to loss of decay heat removal capability from all of the following:</p> <ol style="list-style-type: none"> <li>1) RHR system</li> <li><b>AND</b></li> <li>2) Forced RCS circulation</li> <li><b>AND</b></li> <li>3) Natural RCS circulation</li> </ol>	<p>Either A, B, C or D:</p> <p>A. Inability to bring the reactor subcritical with control rods</p> <p>B. Plant in Mode 1-2-3 <b>AND</b> Loss of steam release capability from all of the following:</p> <ol style="list-style-type: none"> <li>1) Condenser steam dumps</li> <li><b>AND</b></li> <li>2) Atmospheric steam dumps</li> <li><b>AND</b></li> <li>3) All steam generator safeties</li> </ol> <p>C. Plant in Mode 1-2-3 <b>AND</b> Loss of secondary heat sink has occurred <b>AND</b> RCS bleed and feed is required.</p> <p>D. Plant in Mode 1-2-3 <b>AND</b> RCS injection capability has been lost from:</p> <ol style="list-style-type: none"> <li>1) Charging pumps</li> <li><b>AND</b></li> <li>2) High-head SI pumps</li> </ol>	<p>Either A or B:</p> <p>A. Inability to bring the reactor subcritical <b>AND</b> RCS pressure &gt; 2485 psig.</p> <p>B. Inability to bring the reactor subcritical <b>AND</b> Containment pressure <math>\geq</math> 4 psig.</p> <p><b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.</p>
<b>Possible Control Room Indicators</b>			
<b>ACTION</b>			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



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8. Fuel Element Failure			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
RCS activity is greater than Technical Specification 3.4.8, Figure 3.4-1, limit for maximum RCS activity.	<p>Either A, B or C:</p> <p>A. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>.</p> <p>-----</p> <p>B. An increase of <math>&gt; 1\%</math> fuel failure in 30 minutes.</p> <p>-----</p> <p>C. Total fuel failure of 5%.</p>	<p>Fuel element failure as indicated by A, B, or C:</p> <p>A. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>. AND RCS <math>T_{\text{hot}} &gt; 620^\circ\text{F}</math>.</p> <p>-----</p> <p>B. Confirmed RCS DEQ I-131 activity <math>\geq 300 \mu\text{Ci/gm}</math>. AND Core exit thermocouples <math>&gt; 700^\circ\text{F}</math>.</p> <p>-----</p> <p>C. Containment high range radiation monitor reading <math>&gt; 1.3 \text{ E4 Rem/hr}</math>.</p>	<p>Fuel element failure as defined in Site Area Emergency of this section AND Any of the following is imminent or in progress:</p> <p>a) LOCA with loss of containment cooling OR b) LOCA with loss of containment integrity which provides a flowpath to the environment OR c) Steam generator tube rupture with unisolable flowpath from the ruptured steam generator to the environment.</p> <p>CAUTION: Consult Table 2, Page 36 for required protective action recommendations.</p>
Possible Control Room Indicators			
	PRMS R-20 ARMS R-1 through R-6	Core Exit Thermocouples RI-6311A RI-6311B	
A C T I O N			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



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9. Uncontrolled Effluent Release			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B:</p> <p>A. Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas.</p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations.</p> <p>-----</p> <p>B. Technical Specification 3.11 limits for liquid release.</p> <p>NOTE: Direct Chemistry to perform release calculation in accordance with Offsite Dose Calculation Manual.</p>	<p>A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B:</p> <p>A. Ten times Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas.</p> <p>NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations.</p> <p>-----</p> <p>B. Ten times Technical Specification 3.11 limits for liquid release.</p> <p>NOTE: Direct Chemistry to perform release calculation in accordance with Offsite Dose Calculation Manual.</p>	<p>Performance of EPIP-20126, Offsite Dose Calculation or offsite surveys indicate site boundary exposure levels have been exceeded as indicated by either A, B, C, or D:</p> <p>A. <math>\geq 50</math> mRem/hr whole body for 1/2 hour</p> <p>-----</p> <p>B. <math>\geq 250</math> mRem/hr thyroid for 1/2 hour</p> <p>-----</p> <p>C. <math>\geq 500</math> mRem/hr whole body for 2 minutes</p> <p>-----</p> <p>D. <math>\geq 2500</math> mRem/hr thyroid for 2 minutes</p> <p>NOTE: Site boundary equals 1 mile radius from affected unit.</p> <p>CAUTION: Consult Table 2, Page 36 for possible protective action recommendations.</p>	<p>Performance of EPIP-20126, Offsite Dose Calculation or offsite surveys indicate site boundary exposure levels have been exceeded as indicated by either A, B, C or D:</p> <p>A. <math>\geq 1</math> Rem/hr whole body</p> <p>-----</p> <p>B. <math>\geq 1</math> Rem integrated whole body dose</p> <p>-----</p> <p>C. <math>\geq 5</math> Rem/hr thyroid</p> <p>-----</p> <p>D. <math>\geq 5</math> Rem integrated thyroid dose</p> <p>NOTE: Site boundary equals 1 mile radius from affected unit.</p> <p>CAUTION: Consult Table 2, Page 36 for required protective action recommendations.</p>
Possible Control Room Indicators			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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<b>10. High Radiation Levels In Plant</b>			
<b>UNUSUAL EVENT</b>	<b>ALERT</b>	<b>SITE AREA EMERGENCY</b>	<b>GENERAL EMERGENCY</b>
	<p>Severe loss of control of radioactive materials as indicated by either A, B or C:</p> <p>A. Unexpected valid area monitor alarm from an undeterminable source with meter greater than 10<sup>3</sup> mR/hr.</p> <p>-----</p> <p>B. Unexpected plant iodine or particulate airborne concentration &gt; 1000 MPC as per 10 CFR 20 Appendix B, Table 1.</p> <p>-----</p> <p>C. Unexpected direct radiation dose rate reading or unexpected airborne radioactivity concentration from an undetermined source in excess of 1000 times normal levels.</p>	<p>Containment High Range Radiation Monitor reading &gt; 1.3 E4 Rem/hr.</p> <p><b>NOTE:</b> Direct Chemistry to perform offsite dose estimates per EPIP-20126, Off-Site Dose Calculations. (See Section 9, Uncontrolled Effluent Release)</p> <p><b>CAUTION:</b> Consult Table 2, Page 36 for possible protective action recommendations.</p>	<p>Containment High Range Radiation Monitor reading &gt; 1.3 E5 Rem/hr.</p> <p><b>NOTE:</b> Direct Chemistry to perform offsite dose estimates per EPIP-20126, Off-Site Dose Calculations. (See Section 9, Uncontrolled Effluent Release)</p> <p><b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.</p>
<b>Possible Control Room Indicators</b>			
	Area Radiation Monitors	RI-6311A RI-6311B	RI-6311A RI-6311B
<b>ACTION</b>			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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11. Other Plant Conditions That Could Lead To Substantial Core Damage			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
			<p>Either A or B:</p> <p>A. Potential core damage indicated by all of the following:</p> <ol style="list-style-type: none"> <li>1) Known LOCA greater than available charging pump capacity</li> <li>AND</li> <li>2) Failure of ECCS to deliver flow to the core</li> <li>AND</li> <li>3) Containment High Range Radiation Monitor reading &gt; 1.3 E4 Rem/hr.</li> </ol> <p>-----</p> <p>B. Potential core damage indicated by all of the following:</p> <ol style="list-style-type: none"> <li>1) Loss of secondary heat sink.</li> <li>AND</li> <li>2) RCS bleed and feed required</li> <li>AND</li> <li>3) No high-head SI flow available</li> <li>AND</li> <li>4) No RHR flow for greater than 30 minutes</li> <li>AND</li> <li>5) No AFW flow for greater than 30 minutes</li> </ol> <p>CAUTION: Consult Table 2, Page 36 for required protective action recommendations.</p>
Possible Control Room Indicators			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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12. Loss Of Power Conditions			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Either A or B:</p> <p>A. Loss of offsite power to the:</p> <p>1) A 4KV bus AND 2) B 4KV bus</p> <p>-----</p> <p>B. Loss of onsite power capability as indicated by:</p> <p>1) Loss of capability to power at least one vital 4KV bus from <u>any</u> of the four available emergency diesel generator.</p>	<p>Either A or B:</p> <p>A. Loss of all vital onsite DC power.</p> <p>-----</p> <p>B. Loss of offsite power AND Both associated emergency diesel generators fail to energize their associated 4KV buses.</p> <p>NOTE: Refer to Section 7, Loss of Safe Shutdown Function</p>	<p>Either A, B or C with fuel in the Reactor Vessel</p> <p>A. Loss of all A/C power for &gt; 15 minutes.</p> <p>-----</p> <p>B. Loss of all vital onsite DC power for &gt; 15 minutes.</p> <p>-----</p> <p>C. Emergency Coordinator leaves Control Room within the first 15 minutes of a loss of all A/C <u>OR</u> DC power.</p>	<p>The following situation exists for &gt; 1 hr with fuel in the Reactor Vessel.</p> <p>a) Loss of all A/C power AND b) Loss of all feedwater capability.</p> <p>CAUTION: Consult Table 2, Page 36 for required protective action recommendations.</p>
Possible Control Room Indicators			
4Kv Bus Voltage 4Kv Bus Amps			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.





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13. Contaminated Personnel			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Transportation of confirmed externally contaminated injured individual(s) from the site to a medical facility.			
Possible Control Room Indicators			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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14. Loss Of Assessment Functions			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Either A, B, or C:  A. Loss of primary communications with offsite locations <u>AND</u> Loss of all backup communications with offsite locations ----- B. Loss of primary onsite meteorological instrumentation <u>AND</u> Loss of all backup onsite meteorological instrumentation <u>AND</u> Loss of all communication with NOAA/NWS ----- C. Loss of effluent or radiological monitoring capability requiring plant shutdown.	Plant in Mode 1-2-3-4: <u>AND</u> Most or all Control Room annunciator alarms lost for > 5 minutes	A plant transient is in progress <u>AND</u> All Control Room annunciator alarms lost for > 15 minutes	
Possible Control Room Indicators			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

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5/20/93**15. Natural Phenomena**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Plant in Mode 1-2-3-4 <u>AND</u> either A, B, C or D:	Plant in any mode including defueled. <u>AND</u> either A, B, C or D:	Plant in Mode 1-2-3-4 <u>AND</u> either A, B or C:	A major natural event (e.g., high winds, earthquake, flooding) has occurred, which could cause massive damage to plant systems resulting in any of the other General Emergency initiating conditions.
A. Confirmed hurricane warning <u>OR</u> B. Confirmed tornado in owner controlled area <u>OR</u> C. Any earthquake detected onsite <u>OR</u> D. Hurricane/flood surge that prevents land access to the site	<u>NOTE:</u> If accurate projections of onsite wind speeds are not available within 12 hours of entering the hurricane warning, classify the event using current hurricane track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than current hurricane wind speed if the track is away from PTN.  A. Confirmed hurricane warning with maximum projected onsite wind speeds in excess of 200 mph <u>OR</u> B. Tornado striking any power block structure <u>OR</u> C. Earthquake that could cause or has caused trip of the turbine generator or reactor <u>OR</u> D. Hurricane/flood surge that raises water level > 18 feet above MLW	<u>NOTE:</u> If accurate projections of onsite wind speeds are not available within 12 hours of entering the hurricane warning, classify the event using current hurricane track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than current hurricane wind speed if the track is away from PTN.  A. Confirmed hurricane warning with maximum projected onsite wind speeds in excess of 225 mph <u>AND</u> the unit not expected to be in cold shutdown prior to the projected onset of hurricane force winds <u>OR</u> B. Earthquake has caused loss of any safety system function <u>OR</u> C. Hurricane/flood surge that raises water level > 18 feet above MLW and results in shutdown of turbine generator or reactor.	<b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.

**Possible Control Room Indicators**

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**ACTION**

Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.
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**TABLE 1**  
**EMERGENCY CLASSIFICATION TABLE**

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16. Hazards To Station Personnel And Equipment			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Safety of nuclear plant or personnel threatened by either A, B, C, D, or E:</p> <p>A. Aircraft crash onsite -----</p> <p>B. Unusual aircraft activity over facility -----</p> <p>C. Toxic or flammable gas release -----</p> <p>D. Turbine generator rotating component failure requiring rapid turbine shutdown -----</p> <p>E. Onsite explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas.</p>	<p>Either A, B or C:</p> <p>A. A reduction in the level of safety of plant structures or components within the protected area due to damage caused by either 1), 2), or 3):</p> <p style="padding-left: 40px;">1) Aircraft crash           OR 2) Missile impact           OR 3) Explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas.</p> <p>-----</p> <p>B. Toxic or flammable gas release which threatens plant operation.</p> <p>-----</p> <p>C. Turbine generator failure resulting in casing penetration.</p>	<p>Either A or B:</p> <p>A. Plant in Mode 1-2-3-4       AND Safety systems have failed or damage to vital structure has been caused by either 1), 2), or 3):</p> <p style="padding-left: 40px;">1) Aircraft crash           OR 2) Missile impact           OR 3) Explosion</p> <p>NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas.</p> <p>-----</p> <p>B. Toxic or flammable gas release into control or vital areas which renders one train of safety related systems inoperable.</p>	
Possible Control Room Indicators			
A C T I O N			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.

TABLE 1

EMERGENCY CLASSIFICATION TABLE

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**17. Security Threat**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Declaration of a "Security Alert" due to either A, B, C, D, E, F, G, H	Declaration of a "Security Emergency"	Declaration of a "Security Emergency" involving imminent occupancy of the Control Room or other vital areas by intruders.	Physical attack on the plant resulting in occupation of the Control Room or other vital areas by intruders.
A. Bomb Threat -----			<b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.
B. Attack threat -----			
C. Civil disturbance -----			
D. Protected area intrusion -----			
E. Sabotage attempt -----			
F. Internal disturbance -----			
G. Vital area intrusion -----			
H. Security Force strike			

**Possible Control Room Indicators**

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**ACTION**

Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.
---	---	---	---

TABLE 1

EMERGENCY CLASSIFICATION TABLEEPIP 20101  
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4/13/93**18. Control Room Evacuation**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	Control Room evacuation anticipated or required	Control Room has been evacuated <u>AND</u> Local control of shutdown systems has <u>NOT</u> been established from local stations within 15 minutes.	
<b>Possible Control Room Indicators</b>			

**19. Fire**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
Uncontrolled fire within the power block lasting longer than 10 minutes	Uncontrolled fire potentially affecting safety systems <u>AND</u> Offsite support required.	Fire which prevents a safety system from performing its design function.	A major fire has occurred which could cause massive damage to plant systems resulting in any of the other General Emergency initiating conditions.  <b>CAUTION:</b> Consult Table 2, Page 36 for required protective action recommendations.
<b>Possible Control Room Indicators</b>			

**ACTION**

Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.
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TABLE 1

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20. Loss of Engineered Safety Features/Fire Protection			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Power reduction started in accordance with Technical Specifications due to either:</p> <p>A) TS 3.3.1, Reactor Trip System Instrumentation, OR B) TS 3.3.2, Engineered Safety Features Actuation System Instrumentation, OR C) TS 3.5, Emergency Core Cooling Systems, OR D) TS 3.6, Containment Systems, or E) TS 3.7.2, Component Cooling Water, OR F) TS 3.7.3, Intake Cooling Water, or G) 3.7.5, Control Room Emergency Ventilation System, OR H) T.S. 3.7.8, Fire Suppression Systems.</p> <p>NOTE: Notify Fire Protection Department to consult FSAR Section 9.6, for further guidance on fire protection system requirements</p>			
Possible Control Room Indicators			
ACTION			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



TABLE 1

EMERGENCY CLASSIFICATION TABLE

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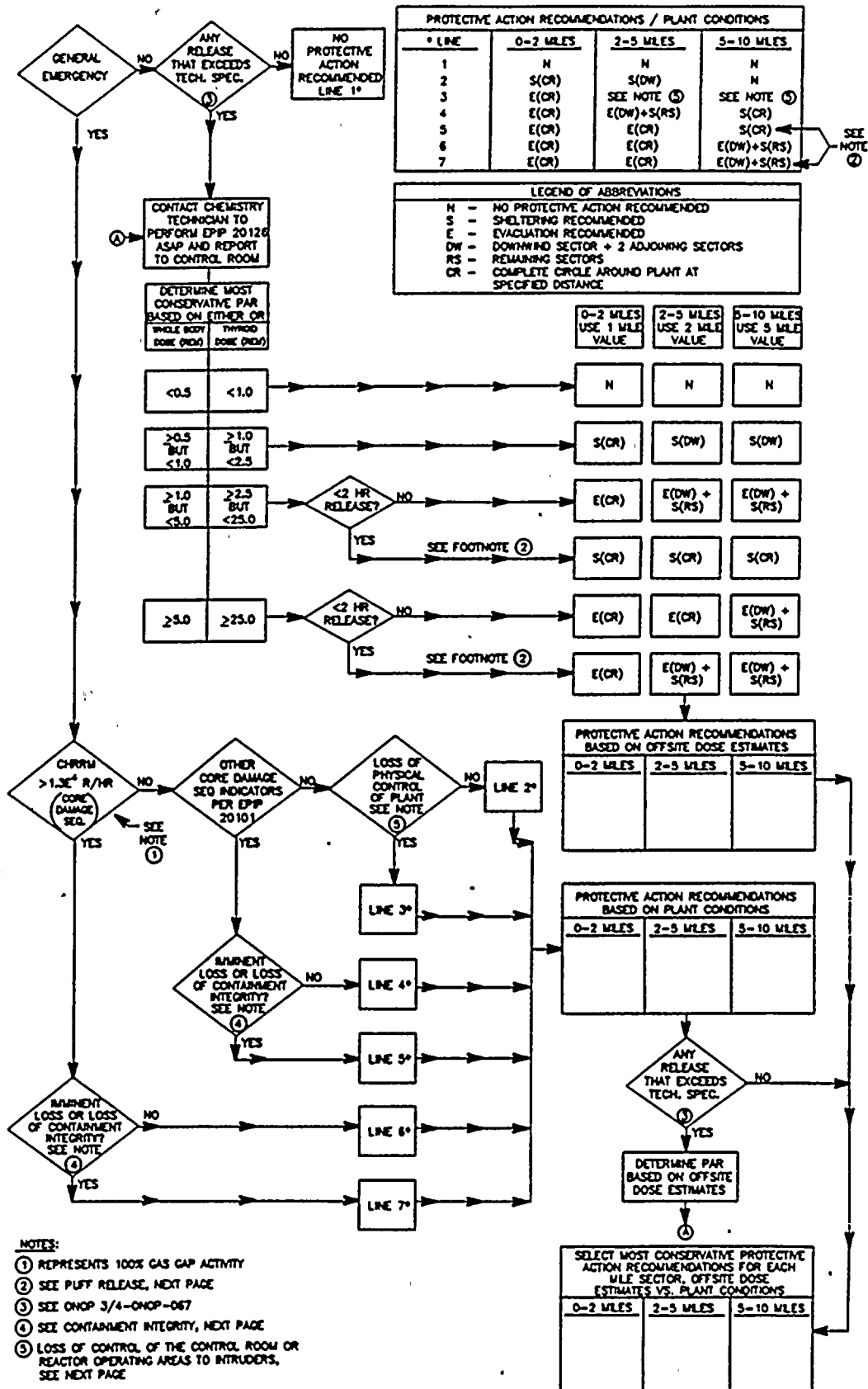
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21. Other Plant Conditions Requiring Increased Awareness (Emergency Coordinator's Judgment)			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>Emergency Coordinator's judgment that other plant conditions exist which warrant increased awareness on the part of the operating staff and/or local offsite authorities.</p> <p>NOTE: Activation of the Emergency Response Facilities does not require declaration of an emergency or entry into a specific emergency classification.</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which warrant the increased awareness and activation of emergency response personnel.</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which warrant the precautionary notification to the public near the site and the activation of FPL and offsite agency emergency response personnel.</p> <p>(Reflects conditions where some significant releases are likely or are occurring but where a core melt situation is not indicated based on current information)</p>	<p>Emergency Coordinator's judgment that other plant conditions exist which make release of large amounts of radioactivity, in a short period of time, possible</p> <p>(Loss of two fission product barriers with potential for loss of the third, such as, actual or imminent substantial core degradation or melting with the potential for loss of containment.)</p> <p>CAUTION: Consult Table 2, Page 36 for required protective action recommendations.</p>
Possible Control Room Indicators			
A C T I O N			
Complete actions listed in Step 8.4, Page 40.	Complete actions listed in Step 8.5, Page 53.	Complete actions listed in Step 8.6, Page 67.	Complete actions listed in Step 8.7, Page 83.



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TABLE 2  
PROTECTIVE ACTION RECOMMENDATIONS BASED ON  
 PLANT CONDITIONS AND OFF-SITE DOSE ESTIMATES



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TABLE 2

PROTECTIVE ACTION RECOMMENDATIONS BASED ON PLANT CONDITIONS

NOTE: 2

PUFF RELEASES

If a "PUFF" type release is imminent or in progress as indicated by the following conditions:

- (1) Containment failure has occurred or is imminent,  
AND
- (2) Rate of release is much greater than designed leak rate,  
AND
- (3) Either the total or major portion of radioactivity is projected to be released within 2 hours or less.

If 1 through 3 apply, in addition to the appropriate protective action recommendations the following statement and information should be given:

"Florida Power & Light Company recommends sheltering those areas that can't be evacuated before plume arrival."

NOTE: 4 CONTAINMENT INTEGRITY

If loss of containment integrity is suspected, the following actions should be taken. If containment pressure is greater than 4 psig - verify PHASE A containment isolation and containment ventilation isolation valves are properly closed, as required. At containment pressure greater than or equal to 20 psig verify isolation valves for both PHASE A and B and containment isolation valves are properly closed. If possible, and accessible, secure identified leak path(s).

If loss of containment integrity is still suspected (e.g. unmonitored leakage through electrical penetration room, equipment, personnel or emergency hatch, etc.) instruct Health Physics personnel to survey for leakage in specified area(s) by external gamma survey and/or charcoal air sample and analysis.

NOTE: 5 LOSS OF PHYSICAL CONTROL TO INTRUDERS

For loss of physical control of the plant or vital reactor operating areas to intruders, determine 2-5 mile and 5-10 mile PARs on other existing General Emergency conditions. If no other conditions exist, (intruder only), No protective actions for 2-5 miles or 5-10 mile sectors.





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TABLE 2

## ADDITIONAL GUIDANCE ON DETERMINING PROTECTIVE ACTION RECOMMENDATIONS

Beginning at the top left side, answer the "General Emergency" question. If "Yes", continue on, following the arrows down the side of the page, and answer the other question blocks. Once answering all questions, you will end at a line Number box, which corresponds with the "Protection Action Recommendations/Plant Conditions" Table at the top right side. The corresponding line applies to 0-2, 2-5, and 5-10 mile PARs. The actions for the applicable line is to be written in the block "Protective Actions Based On Plant Conditions".

From the PAR based on Plant Conditions Block, continue following arrow to next question "Any release that exceeds Tech Specs". In determining PARs, both plant conditions AND off-site doses must be considered for all PARs. If a release has not occurred, then proceed with issuance of PARs from the plant condition determination.

If a release that exceeds Tech Specs has occurred, then the

- (A) connector sends you to "Contact Chemistry Technician to perform EPIP 20126 as soon as possible and report to Control Room". If Plant Condition PARs have already been determined, or if not in a General Emergency, "YES" is answered for "Any release that exceeds Tech Specs". Chemistry will complete dose estimates and give to the EC. Also, HP Field Teams may have dose rates and thyroid doses determined from actual measurement. If both are available and significant discrepancies exist between the two, then an evaluation should be made, and the appropriate information be used in PAR determination. Doses are 2 hour projections or duration of the release, if the release is expected to be less than 2 hours.

To determine PARs from off-site doses, find the block that corresponds with the dose and follow arrow across to the column that indicates the distance where that dose was found. The corresponding PAR is assigned to that mile block under "Protective Action Recommendations Based on Off-Site Dose Estimates". Once PARs are determined for all mile sectors, then a comparison with the Plant Condition PARs is performed, and the most conservative PARs for each mile sector is selected for issue to off-site agencies.



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TABLE 2

The following example is provided:

Example: A release has occurred at the Turkey Point Plant with a projected duration of 2 hours. The wind direction is from the NNE and the projected off-site accumulated thyroid dose (i.e., accumulated over a 2 hour duration) is 10 Rem at 1 mile, and less than 1 Rem at 5 and 10 miles. Whole body doses are 0.8 Rem at 1 mile, 0.6 Rem at 2 miles, and less than 0.5 Rem at 5 miles. The plant is in a General Emergency with CHRRM at 100 R/hr, no core damage, and no loss of physical control of the plant.

Referring to Table 2, the following recommendation should be made:

"Based on our current assessment of all the information now available to us, Florida Power & Light Company recommends that you consider taking the following protective actions.

- A. EVACUATE all people between 0 and 2 miles from the plant.
- B. SHELTER all people between a 2 and 5 mile radius from the plant who are in Sectors J, K, and L (refer to State of Florida Notification Message Form).
- C. No protective action is recommended between a 5 and 10 mile radius from the plant.

This recommendation may change in the future, but we cannot now say when it may change or what it may change to.

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Time

8.4 If an Unusual Event has been declared complete the following steps:

NOTE: Notification steps may be performed out of sequence in order to meet State of Florida and/or NRC notification time requirements.

8.4.1 The Emergency Log Book should be used for documenting sequence of events.

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator, or his designee, to prevent alarming intruders if security events warrant.

8.4.2 Inform or have Control Room personnel inform site personnel of the emergency via Plant Page System and make one of the following announcements twice using the Page Volume Boost. [Either (1) or (2)]

1. If entering into an Unusual Event:

"Attention all personnel, attention all personnel: An Unusual Event has been declared on Unit (#) due to (provide a brief description of initiating event) All Emergency Response Organization members remain on standby. All other personnel continue with present duties unless further instruction is given."

2. If downgrading to an Unusual Event:

"Attention all personnel; attention all personnel: the Emergency has been downgraded to an Unusual Event."

8.4.3 If there is a localized emergency (fire, high radiation, toxic gas):

1. Determine assembly area for personnel evacuated from the affected area.

2. Announce type and location, instruct personnel to stand clear, and report to the assembly area.

3. Sound applicable alarm, if not previously done.

4. Announce type and location, instruct personnel to stand clear, and report to the assembly area.

5. Initiate Search and Rescue as required.



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Time

NOTE: If plant events (radiological or security threat considerations) warrant, alternate facilities and/or routes to these facilities may be necessary. Refer to Precautions, Section 4.0.

8.4.4 If significant public interest is expected or significant technical support is required, direct the Control Room Shift Technician and the STA to initiate a partial activation of the Emergency Response Organization. Indicate those positions requiring activation and the desired reporting location.

CAUTIONS:

- Notification to the State Warning Point is required within 15 minutes of emergency classification.
- Notification to the NRCOC is required to immediately follow the State notification and no later than one (1) hour.
- Collection of Release Rate Data shall not delay State of Florida or NRC notification.
- If a transitory event has occurred, notifications are still required using this procedure.
- If during the notification process it becomes necessary to upgrade the emergency classification, stop the current notification process and proceed to the steps corresponding to the new emergency classification.

8.4.5 If offsite (State/County) notification responsibilities ARE with the Emergency Coordinator onsite, complete the following steps:

1. Complete the State of Florida Notification Message Form.
2. The Emergency Coordinator shall initial the form prior to transmitting the information to verify Emergency Coordinator approval.



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Time

NOTE: State Warning Point may request verification call back. If requested, they will call in on the black bell phone (ringmaster) or cellular phone in the Control Room.

3. Within 15 minutes of classifying the Unusual Event notify the State Warning Point in Tallahassee and relay information from the State of Florida Notification Message Form just completed via one of the following:
  - a. Hot Ring Down Telephone (22)
  - b. NAWAS
  - c. Commercial Telephone (refer to ERD)
  - d. Cellular Phone (refer to ERD)
  - e. Local Government Radio
4. Complete an Event Notification Worksheet Form.
5. Immediately after the notification to State/County agencies of the Unusual Event, contact the NRCOC in Bethesda and relay the information from the Event Notification Worksheet just completed via one of the following:
  - a. ENS
  - b. Commercial Telephone (refer to ERD)
  - c. Cellular Telephone (refer to ERD)





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STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:
 

	NOBLE GASES			IODINES	
DEFAULT (A) _____	CURIES PER SECOND	(C) _____	CURIES PER SECOND		
MEASURED (B) _____	CURIES PER SECOND	(D) _____	CURIES PER SECOND		
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:
 

<u>DISTANCE</u>	<u>THYROID (MREM/HR)</u>	<u>WHOLE BODY (MREM/HR)</u>
1 MILE (SITE BOUNDARY) _____	_____	_____
2 MILES _____	_____	_____
5 MILES _____	_____	_____
10 MILES _____	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
 (NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)
 

<u>MILES</u>	<u>NO ACTION</u>	<u>SHELTER/SECTORS</u>	<u>EVACUATE/SECTORS</u>
0--2 _____	_____	_____	_____
2--5 _____	_____	_____	_____
5--10 _____	_____	_____	_____
10-- _____	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_



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## SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

## Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

## STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

## CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.

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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME		FACILITY OR ORGANIZATION		UNIT	CALLERS NAME		CALL BACK: ENS _____ OR ( ) _____
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)			(v) Lost Offsite Comms		
					(vi) Fire		
POWER MODE BEFORE	POWER MODE AFTER	(ii) (A) TS Required S/D			(vi) Toxic Gas		
		(ii) (B) TS Deviation			(vi) Rad Release		
		(iii) Degraded Condition			(vi) Oth Hampering Safe Op		
		(iii) (A) Unanalyzed Condition			4-Hr Non-Emergency 10 CFR 50.72 (b) (2)		
Event Classifications							
		(ii) (B) Outside Design Basis			(i) Degrade While S/D		
		(iii) (C) Not Covered by OPs/EOPs			(ii) RPS Actuation (Scram)		
GENERAL EMERGENCY		(iii) Earthquake			(ii) ESF Actuation		
SITE AREA EMERGENCY		(iii) Flood			(iii) (A) Safe S/D Capability		
ALERT		(iii) Hurricane			(iii) (B) Rhr Capability		
UNUSUAL EVENT		(iii) Ice/Hail			(iii) (C) Control of Rad Release		
50.72 NON-EMERGENCY		(iii) Lighting			(iii) (D) Accident Mitigation		
PHYSICAL SECURITY (73.71)		(iii) Tornado			(iv) (A) Air Release > 2X App B		
TRANSPORTATION		(iii) Other Natural Phenomenon			(iv) (B) Liq Release > 2X App B		
20.403 MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS			(v) Offsite Medical		
OTHER		(v) Lost ENS			(vi) Offsite Notification		
		(v) Lost Emerg. Assessment					
<p><b>DESCRIPTION</b></p>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?		YES (Explain above)	NO
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?		YES	NO (Explain above)
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	



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NRC FORM 361

ADDITIONAL INFORMATION USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>						
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED	
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED	
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED		<input type="checkbox"/> *State release path in description		
	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						
	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER	
RAD MONITOR READINGS:						
ALARM SETPOINTS:						
% T.S. LIMIT (If applicable)						
<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>						
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):						
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:			
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -		SECONDARY -		
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:						
<b>EVENT DESCRIPTION</b> <i>(Continued from front)</i>						

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Time

- 8.4.6 Notify the Nuclear Division Duty Officer (NDDO). If on duty NDDO cannot be reached, notify any NDDO, ECO or System Operations Power Coordinator (last alternate). See the NDDO schedule or the Emergency Response Directory for telephone numbers. If a partial activation of the Corporate Emergency Response Organization is desired, indicate this at this time, and relay applicable information from the State of Florida Notification Message Form.
- 8.4.7 If continued direction of the emergency response activities adversely affects Control Room activities, consider turnover of EC duties to a designated member of the Plant Management staff.
- 8.4.8 If EC duties have been assumed by a designated member of the Plant Management staff, contact affected NRC, State and Local authorities to establish communication links and determine off-site support requirements.
- 8.4.9 Reassess plant conditions using Table 1 periodically.
- 8.4.10 If upgrading Emergency Class, proceed to the applicable section of this procedure per Table 1.
- 8.4.11 Every hour (unless state and local agencies agree less frequent updates are required), upon termination, or as conditions change, provide notifications to the following if notification responsibilities are with the Emergency Coordinator Onsite:
1. Complete a State of Florida Notification Message Form.
  2. The Emergency Coordinator shall initial form prior to transmitting information to verify Emergency Coordinator approval.
  3. Notify the following of the new information.
    - a. State Warning Point
    - b. NDDO
    - c. Duty Call Supervisor
  4. Complete an Event Notification Worksheet Form
  5. Notify the NRCOC of the new information.
    - a. ENS
    - b. Commercial telephone (alternate) (see Emergency Response Directory)





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 48  
DUTIES OF EMERGENCY COORDINATOR

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STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:

NOBLE GASES	IODINES
DEFAULT (A) _____ CURIES PER SECOND	(C) _____ CURIES PER SECOND
MEASURED (B) _____ CURIES PER SECOND	(D) _____ CURIES PER SECOND
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:

<u>DISTANCE</u>	<u>THYROID (MREM/HR)</u>	<u>WHOLE BODY (MREM/HR)</u>
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
(NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)

<u>MILES</u>	<u>NO ACTION</u>	<u>SHELTER/SECTORS</u>	<u>EVACUATE/SECTORS</u>
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_

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## SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

## Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

## STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

## CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.

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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME		FACILITY OR ORGANIZATION		UNIT	CALLERS NAME		CALL BACK: ENS _____ OR ( ) _____
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)			(v) Lost Offsite Comms		
					(vi) Fire		
POWER MODE BEFORE	POWER MODE AFTER	(i) (A) TS Required S/D			(vi) Toxic Gas		
		(i) (B) TS Deviation			(vi) Rad Release		
		(iii) Degraded Condition			(vi) Oth Hampering Safe Op		
		(ii) (A) Unanalyzed Condition			4-Hr Non-Emergency 10 CFR 50.72 (b) (2)		
Event Classifications			(ii) (B) Outside Design Basis				
GENERAL EMERGENCY		(iii) Earthquake			(i) Degrade While S/D		
SITE AREA EMERGENCY		(iii) Flood			(ii) RPS Actuation (Scram)		
ALERT		(iii) Hurricane			(iii) (A) Safe S/D Capability		
UNUSUAL EVENT		(iii) Ice/Hail			(iii) (B) Rhr Capability		
50.72 NON-EMERGENCY		(iii) Lighting			(iii) (C) Control of Rad Release		
PHYSICAL SECURITY (73.71)		(iii) Tornado			(iii) (D) Accident Mitigation		
TRANSPORTATION		(iii) Other Natural Phenomenon			(iv) (A) Air Release > 2X App B		
20.403 MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS			(iv) (B) Liq Release > 2X App B		
OTHER		(v) Lost ENS			(v) Offsite Medical		
		(v) Lost Emerg. Assessment			(vi) Offsite Notification		
<p><b>DESCRIPTION</b></p>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?		YES (Explain above)	NO
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?		YES	NO (Explain above)
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	

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NRC FORM 361

ADDITIONAL INFORMATION

USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>						
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED	
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED	
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED		<input type="checkbox"/> *State release path in description		

	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS:					
ALARM SETPOINTS:					
% T.S. LIMIT (if applicable)					

<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>			
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):			
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -	SECONDARY -
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:			
<b>EVENT DESCRIPTION</b> <i>(Continued from front)</i>			



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Time

8.4.12 Using Attachment 1, De-Escalation Guidelines, determine if the emergency can be terminated.

8.4.13 Upon termination notify, or have the Control Room notify, plant personnel via cross connected Plant Page system by making the following announcement:

"Attention all personnel; attention all personnel: The emergency situation has been terminated. I repeat, the emergency situation has been terminated."

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Time

\_\_\_\_\_ 8.5 If an Alert has been declared perform the following steps

NOTE: Notification steps may be performed out of sequence in order to meet State of Florida and/or NRC notification time requirements.

8.5.1 The Emergency Log Book should be used to document the sequence of events.

CAUTION: The Emergency Coordinator shall use good judgment prior to releasing contractors from the site and clearing those owner controlled areas outside the protected area. Such conditions as security events, release status, release duration, plant conditions, and meteorological conditions should be evaluated prior to moving personnel.

\_\_\_\_\_ 8.5.2 Determine the need to dismiss non-essential contract personnel from the site and clear those areas outside the Protected area.

\_\_\_\_\_ 8.5.3 If a precautionary clearing of personnel outside of the Protected Area is required

1. Inform Security to clear personnel from the following areas and implement applicable sections of Security Force Instruction (SFI) 6307.

- a. Girl Scout Camp
- b. Red Barn Area
- c. Beach/Boat Ramp Area
- d. Wellness Center
- e. Switchyard
- f. Barge Canal
- g. Air Force Sea Survival School area
- h. Trailer Areas and other work areas
- i. Land Utilization

2. Contact the Watch Engineer of Units 1 and 2 and inform them of the precautionary clearing of personnel.





Time

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator, or his designee, to prevent alarming intruders if security events warrant.

8.5.4 Inform, or have Control Room personnel inform site personnel of the emergency via the Plant Page System using the Page Volume Boost [Either (1) or (2)]:

1. If ENTERING into an Alert:

a. Make the following announcement:

"Attention all personnel; attention all personnel: An Alert has been declared on Unit (#) due to (provide a brief description of initiating event). All Emergency Response Organization members report to your designated Emergency Response Facility. All other personnel report to your normal work location."

[The following announcement is OPTIONAL per 8.5.2]

"All non-essential contract personnel are dismissed for the day."

b. Sound the Emergency Plan Activation alarm.

c. Repeat the announcement.

CAUTION: ECO approval is required prior to downgrading from a Site Area Emergency or General Emergency.

2. If DOWNGRADING to an Alert make the following announcement twice:

"Attention all personnel; attention all personnel: The Emergency has been downgraded to an Alert."

8.5.5 If there is a localized emergency (fire, high radiation, toxic gas):

1. Determine an assembly area for personnel evacuated from the affected area.

2. Announce type and location, instruct personnel to stand clear, and report to the assembly area.

3. Sound applicable alarm, if not previously done.

4. Announce type and location, instruct personnel to stand clear, and report to the assembly area.

5. Initiate Search and Rescue as required.



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Time

CAUTION: If a significant release (process monitors off scale, or other indications) and/or security related events are in progress (intruders, bomb threat etc.) inform emergency responders AND site evacuees of best access and egress routes to take onsite to minimize hazards. During off-hours, dispatch Security to route incoming emergency responders away from the hazardous routes.

NOTE: If plant events (radiological or security threat considerations) warrant, alternate facilities and/or routes to these facilities may be necessary. Refer to Precautions, Section 4.0.

8.5.6 Direct STA to initiate activation of on site Emergency Response Facilities (ERF) per EPIP-20104.

CAUTIONS:

- Notification to the State Warning Point is required within 15 minutes of emergency classification.
- Notification to the NRCOC is required to immediately follow the State notification and no later than one (1) hour.
- Collection of Release Rate Data shall not delay State of Florida or NRC notification.
- If a transitory event has occurred, notifications are still required using this procedure.
- If during the notification process it becomes necessary to upgrade the emergency classification, stop the current notification process and proceed to the steps corresponding to the new emergency classification.

8.5.7 If offsite (State/County) notification responsibilities ARE with the Emergency Coordinator onsite, complete the following steps:

1. Complete the State of Florida Notification Message Form.
2. The Emergency Coordinator shall initial the form prior to transmitting the information to verify Emergency Coordinator approval.

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DUTIES OF EMERGENCY COORDINATOR

Time

NOTE: State Warning Point may request verification call back. If requested, they will call in on the black bell phone (ringmaster) or cellular phone in the Control Room.

3. Within 15 minutes of classifying the Alert notify the State Warning Point in Tallahassee and relay information from the State of Florida Notification Message Form just completed via one of the following:

- a. Hot Ring Down Telephone (22)
- b. NAWAS
- c. Commercial Telephone (refer to ERD)
- d. Cellular Phone (refer to ERD)
- e. Local Government Radio

4. Complete an Event Notification Worksheet Form.

5. Immediately after the notification to State/County agencies of the Alert, contact the NRCOC in Bethesda and relay the information from the Event Notification Worksheet just completed via one of the following:

- a. ENS
- b. Commercial Telephone (refer to ERD)
- c. Cellular Telephone (refer to ERD)

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DUTIES OF EMERGENCY COORDINATOR

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STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:

DEFAULT (A) _____	NOBLE GASES	IODINES
MEASURED (B) _____	CURIES PER SECOND (C) _____	CURIES PER SECOND
	CURIES PER SECOND (D) _____	CURIES PER SECOND
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:

DISTANCE	THYROID (MREM/HR)	WHOLE BODY (MREM/HR)
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
(NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)

MILES	NO ACTION	SHELTER/SECTORS	EVACUATE/SECTORS
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_

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SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.





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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME		FACILITY OR ORGANIZATION		UNIT	CALLERS NAME		CALL BACK: ENS _____ OR ( ) _____
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)			(v) Lost Offsite Comms		
					(vi) Fire		
POWER MODE BEFORE	POWER MODE AFTER	(i) (A) TS Required S/D			(vi) Toxic Gas		
		(i) (B) TS Deviation			(vi) Rad Release		
		(iii) Degraded Condition			(vi) Oth Hampering Safe Op		
		(ii) (A) Unanalyzed Condition			4-Hr Non-Emergency 10 CFR 50.72 (b) (2)		
(ii) (B) Outside Design Basis							
Event Classifications		(ii) (C) Not Covered by OPs/EOPs			(i) Degrade While S/D		
		(iii) Earthquake			(ii) RPS Actuation (Scram)		
GENERAL EMERGENCY		(iii) Flood			(ii) ESF Actuation		
SITE AREA EMERGENCY		(iii) Hurricane			(iii) (A) Safe S/D Capability		
ALERT		(iii) Ice/Hail			(iii) (B) Rhr Capability		
UNUSUAL EVENT		(iii) Lighting			(iii) (C) Control of Rad Release		
50.72 NON-EMERGENCY		(iii) Tornado			(iii) (D) Accident Mitigation		
PHYSICAL SECURITY (73.71)		(iii) Other Natural Phenomenon			(iv) (A) Air Release > 2X App B		
TRANSPORTATION		(iv) ECCS Discharge to RCS			(iv) (B) Liq Release > 2X App B		
20.403 MATERIAL/EXPOSURE		(v) Lost ENS			(v) Offsite Medical		
OTHER		(v) Lost Emerg. Assessment			(vi) Offsite Notification		
<p>DESCRIPTION</p>							
<p>Include: Systems affected, actuations &amp; their initiating signals, causes, effect of event on plant, actions taken or planned, etc.</p>							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?		YES (Explain above)	NO
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?		YES	NO (Explain above)
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	



**EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 60**  
**DUTIES OF EMERGENCY COORDINATOR**

NRC FORM 361

ADDITIONAL INFORMATION USNRC OPERATIONS CENTER

RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS <i>(specific details/explanations should be covered in event description)</i>							
<input type="checkbox"/>	LIQUID RELEASE	<input type="checkbox"/>	GASEOUS RELEASE	<input type="checkbox"/>	UNPLANNED RELEASE	<input type="checkbox"/>	PLANNED RELEASE
<input type="checkbox"/>	MONITORED	<input type="checkbox"/>	UNMONITORED	<input type="checkbox"/>	OFFSITE RELEASE	<input type="checkbox"/>	T.S. EXCEEDED
<input type="checkbox"/>				PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/>	
				OFFSITE PROTECTIVE ACTIONS RECOMMENDED		*State release path in description	
	Release Rate (Ci/sec)		% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
	Noble Gas			0.1 Ci/sec			1000 Ci
	Iodine			10 uCi/sec			0.01 Ci
	Particulate			1 uCi/sec			1 mCi
	Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
	Liquid (tritium)			0.2 Ci/min			5 Ci
	Total Activity						
	PLANT STACK	CONDENSER/AIR EJECTOR		MAIN STEAM LINE	SG BLOWDOWN	OTHER	
RAD MONITOR READINGS:							
ALARM SETPOINTS:							
% T.S. LIMIT (if applicable)							
RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS: <i>(specific details/explanations should be covered in event description)</i>							
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):							
LEAK RATE:		UNITS: gpm/gpd		T.S. Limits:		SUDDEN OR LONG TERM DEVELOPMENT:	
LEAK START DATE:		TIME:		COOLANT ACTIVITY & UNITS: PRIMARY - SECONDARY -			
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:							
<p align="center"><b>EVENT DESCRIPTION (Continued from front)</b></p>							



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 61  
DUTIES OF EMERGENCY COORDINATOR

Time

8.5.8 Notify the Nuclear Division Duty Officer (NDDO). If on duty NDDO cannot be reached, notify any NDDO, ECO or System Operations Power Coordinator (last alternate). See the NDDO Schedule or the Emergency Response Directory for telephone numbers, and relay applicable information from the State of Florida Notification Message Form.

8.5.9 If Emergency Response Facilities (TSC/OSC) are activated consider Emergency Coordinator transfer to TSC.

8.5.10 If the EOF is operational relinquish communication responsibilities of off-site agencies to Recovery Manager at EOF after a proper turnover/briefing.

8.5.11 Reassess plant conditions using Table 1 periodically.

CAUTION: If the EOF is operational and the emergency has been upgraded, it is imperative that the Recovery Manager be notified concurrently with the declaration. This will ensure that the 15 minute notification time limit is met.

8.5.12 If upgrading emergency classification level, proceed to applicable section of this procedure per Table 1 and if the EOF is operational, promptly notify the Recovery Manager.

8.5.13 Every hour (unless state and local agencies agree less frequent updates are required), upon termination, or as conditions change, provide notification to the following if notification responsibilities are with the Emergency Coordinator Onsite:

1. Complete a State of Florida Notification Message Form
2. The Emergency Coordinator shall initial form prior to transmitting information to verify Emergency Coordinator approval.
3. Notify the following of the updated information.
  - a. State Warning Point
  - b. NDDO
  - c. Duty Call Supervisor
  - d. Recovery Manager
4. Complete an Event Notification Worksheet Form
5. Notify the NRCOC with the updated information.
  - a. ENS
  - b. Commercial telephone (refer to ERD)

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DUTIES OF EMERGENCY COORDINATOR

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STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:

	NOBLE GASES		IODINES
DEFAULT (A) _____	CURIES PER SECOND	(C) _____	CURIES PER SECOND
MEASURED (B) _____	CURIES PER SECOND	(D) _____	CURIES PER SECOND
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:

DISTANCE	THYROID (MREM/HR)	WHOLE BODY (MREM/HR)
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
(NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)

MILES	NO ACTION	SHELTER/SECTORS	EVACUATE/SECTORS
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 63  
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SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.



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**DUTIES OF EMERGENCY COORDINATOR**

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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	CALLERS NAME	CALL BACK: ENS _____ OR ( ) _____			
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)		(v) Lost Offsite Comms			
		(i) (A) TS Required S/D		(vi) Fire			
		(ii) (B) TS Deviation		(vi) Toxic Gas			
POWER MODE BEFORE	POWER MODE AFTER	(iii) Degraded Condition		(vi) Rad Release			
		(ii) (A) Unanalyzed Condition		(vi) Oth Hampering Safe Op			
		(ii) (B) Outside Design Basis		4-Hr Non-Emergency 10 CFR 50.72 (b) (2)			
Event Classifications		(iii) (C) Not Covered by OPs/EOPs		(i) Degrade While S/D			
GENERAL EMERGENCY		(iii) Earthquake		(ii) RPS Actuation (Scram)			
SITE AREA EMERGENCY		(iii) Flood		(ii) ESF Actuation			
ALERT		(iii) Hurricane		(iii) (A) Safe S/D Capability			
UNUSUAL EVENT		(iii) Ice/Hail		(iii) (B) Rhr Capability			
50.72 NON-EMERGENCY		(iii) Lighting		(iii) (C) Control of Rad Release			
PHYSICAL SECURITY (73.71)		(iii) Tornado		(iii) (D) Accident Mitigation			
TRANSPORTATION		(iii) Other Natural Phenomenon		(iv) (A) Air Release > 2X App B			
20.403 MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS		(iv) (B) Liq Release > 2X App B			
OTHER		(v) Lost ENS		(v) Offsite Medical			
		(v) Lost Emerg. Assessment		(vi) Offsite Notification			
<div style="text-align: center; margin-bottom: 10px;"><b>DESCRIPTION</b></div> <div style="border: 1px solid black; min-height: 350px;"></div>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	



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NRC FORM 361

ADDITIONAL INFORMATION

USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>							
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED		
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED		
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED		<input type="checkbox"/> *State release path in description			

	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS:					
ALARM SETPOINTS:					
% T.S. LIMIT (if applicable)					

<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>			
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):			
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -	SECONDARY -
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:			
<b>EVENT DESCRIPTION</b> <i>(Continued from front)</i>			



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EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 66  
DUTIES OF EMERGENCY COORDINATOR

Time

8.5.14 Using Attachment 1, De-Escalation Guidelines, determine if the emergency can be de-escalated or terminated.

8.5.15 If de-escalating Alert, return to the applicable section of this procedure per Table 1.



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DUTIES OF EMERGENCY COORDINATOR

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Time

- 8.6 If a Site Area Emergency has been declared perform the following steps.

CAUTION: De-escalation from Site Area Emergency must be done in concurrence with the ECO.

NOTE: Notification steps may be performed out of sequence in order to meet State of Florida and/or NRC notification time requirements.

- 8.6.1 The Emergency Log Book should be used to document sequence of events.

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator, or his designee, to prevent alarming intruders if security events warrant.

- 8.6.2 Inform, or have the Control Room inform, site personnel of the emergency via Plant Page System using the Page Volume Boost [Either (1) or (2)]:

CAUTION: If a release is in progress, inform emergency responders of access routes to Emergency Response Facilities. During off-hours, dispatch security to route incoming emergency responders away from hazardous routes.

1. If ENTERING into a Site Area Emergency,

- a. Make the following announcement:

"Attention all personnel; attention all personnel: A Site Area Emergency has been declared on Unit (#) due to (provide brief description of initiating event). All Emergency Response Organization members report to your designated Emergency Response Facility."

- b. If not previously done, sound the Emergency Plan Activation alarm.

- c. Repeat the announcement.

CAUTION: ECO Approval is required prior to downgrading from a site area emergency.

2. If DOWNGRADING to a Site Area Emergency, make the following announcement twice:

"Attention all personnel; attention all personnel: The emergency has been downgraded to Site Area Emergency"





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Time

8.6.3 Consider plant and radiological conditions as they relate to the emergency regarding site evacuation:

1. Potential for release
2. Duration of release
3. Direction of release
4. Meteorological conditions
5. Plant conditions (need for supplemental emergency response personnel)
6. Security Threats to Evacuees

CAUTION: As conditions warrant, the Emergency Coordinator may delay, postpone, or make special requirements (for discussion, see Section 4.19) on the evacuation. If large doses will be received during an evacuation, it may be more effective to shelter non-essential personnel onsite.

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator, or his designee, to prevent alarming intruders if security events warrant.

8.6.4 Implement an Owner Controlled Area Evacuation if no significant hazards exist which may threaten evacuees.

1. If the TSC Health Physics Supervisor is available, discuss release status, release duration, and wind direction to determine applicable evacuation rout and Offsite Assembly Area.
2. Notify the Security Shift Specialist for an evacuation of the Owner Controlled Area, including non-essential personnel from the Protected Area, and instruct them to implement EPIP-20110, Criteria for and Conduct of an Owner Controlled Area Evacuation, and Security Force Instruction (SFI) 6307, Emergency Evacuation.
3. Notify the Watch Engineer of Units 1 and 2 of the Site Evacuation and instruct them to initiate a roster of personnel left in the fossil units for shutdown of the fossil units.

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Time  
\_\_\_\_\_

4. Inform, or have the Control Room inform, site personnel via Plant Page System and complete the following steps:

CAUTION: If a significant release (process monitors off scale or other indications) and/or security related (intruders, bomb threat, etc) events are in progress, inform emergency responders AND site evacuees of best access and egress routes to take to/from site to minimize hazards. During off-hours, dispatch Security to route incoming emergency responders away from hazardous routes.

- a. Make the following announcement using Page Volume Boost:

"Attention all personnel; attention all personnel: An Owner Controlled Area Evacuation has been implemented. All Emergency Response Organization members report to your designated Emergency Response Facility. All other personnel evacuate to (designated Offsite Assembly Area) by (route to Offsite Assembly Area)"

- b. Sound the Site Evacuation Alarm.

- c. Make the following announcement using Page Volume Boost:

"Attention all personnel; attention all personnel: An Owner Controlled Area Evacuation has been implemented. All Emergency Response Organization members report to your designated Emergency Response Facility. All other personnel evacuate to (designated Offsite Assembly Area) by (route to Offsite Assembly Area)"

- 8.6.5 Notify the TSC Security Supervisor (Security Shift Specialist) to:

1. Discuss the potential for the suspension of all or some safeguards. (Reference Section 3.2.4).
2. Provide accountability information as needed (names and badge numbers).



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Time

8.6.6 If there is a localized emergency (fire, high radiation, toxic gas):

1. Determine an assembly area for personnel evacuated from the affected area.
2. Announce type and location, instruct personnel to stand clear and report to the designated assembly area.
3. Sound applicable alarm, if not previously done.
4. Announce type and location, instruct personnel to stand clear and report to the designated assembly area.
5. Initiate Search and Rescue as required.

8.6.7 If the onsite Emergency Response Facilities are operational consider Emergency Coordinator transfer to TSC, if not previously done.

NOTE: If plant events (radiological or security threat considerations) warrant, alternate facilities and/or routes to these facilities may be necessary. Refer to Precations, Section 4.0.

8.6.8 If not previously done, instruct STA to initiate activation of onsite Emergency Response Facilities (ERF) per EPIP-20104.

8.6.9 Update onsite emergency responders of the emergency conditions.

8.6.10 If the EOF is operational relinquish communication responsibilities to offsite agencies to Recovery Manager at EOF.



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DUTIES OF EMERGENCY COORDINATOR

Time

CAUTIONS:

- Notification to the State Warning Point is required within 15 minutes of emergency classification.
- Notification to the NRCOC is required to immediately follow the State notification and no later than one (1) hour.
- Collection of Release Rate Data shall not delay State of Florida or NRC notifications.
- If a transitory event has occurred, notifications are still required using this procedure.
- If during the notification process it becomes necessary to upgrade the emergency classification, stop the current notification process and proceed to the steps corresponding to the new emergency classification.

8.6.11 If offsite (State/County) notification responsibilities ARE with the Emergency Coordinator onsite, complete the following steps:

1. Complete the State of Florida Notification Message Form.
2. The Emergency Coordinator shall initial the form prior to transmitting the information to verify Emergency Coordinator approval.

NOTE:

State Warning Point may request verification call back. If requested, they will call in on the black bell phone (ringmaster) or cellular phone in the Control Room.

3. Within 15 minutes of classifying the Site Area Emergency notify the State Warning Point in Tallahassee and relay information from the State of Florida Notification Message Form just completed via one of the following:

- a. Hot Ring Down Telephone (22)
- b. NAWAS
- c. Commercial Telephone (refer to ERD)
- d. Cellular Phone (refer to ERD)
- e. Local Government Radio



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Time  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_

4. Complete an Event Notification Worksheet Form.
5. Immediately after the notification to State/County agencies of the Site Area Emergency contact the NRCOC in Bethesda and relay the information from the Event Notification Worksheet just completed via one of the following:
  - a. ENS
  - b. Commercial Telephone (refer to ERD)
  - c. Cellular Telephone (refer to ERD)





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STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:

	NOBLE GASES		IODINES
DEFAULT (A) _____	CURIES PER SECOND	(C) _____	CURIES PER SECOND
MEASURED (B) _____	CURIES PER SECOND	(D) _____	CURIES PER SECOND
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:

<u>DISTANCE</u>	<u>THYROID (MREM/HR)</u>	<u>WHOLE BODY (MREM/HR)</u>
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
(NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)

<u>MILES</u>	<u>NO ACTION</u>	<u>SHELTER/SECTORS</u>	<u>EVACUATE/SECTORS</u>
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_

Revision 12/12/88

4/13/93

SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.



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DUTIES OF EMERGENCY COORDINATOR

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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	CALLERS NAME	CALL BACK: ENS _____ OR ( ) _____			
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)		(v) Lost Offsite Comms			
				(vi) Fire			
POWER MODE BEFORE	POWER MODE AFTER	(i) (A) TS Required S/D		(vi) Toxic Gas			
		(i) (B) TS Deviation		(vi) Rad Release			
		(iii) Degraded Condition		(vi) Oth Hampering Safe Op			
		(ii) (A) Unanalyzed Condition		4-Hr Non-Emergency 10 CFR 50.72 (b) (2)			
(ii) (B) Outside Design Basis							
Event Classifications		(ii) (C) Not Covered by OPs/EOPs		(i) Degrade While S/D			
GENERAL EMERGENCY		(iii) Earthquake		(ii) RPS Actuation (Scram)			
SITE AREA EMERGENCY		(iii) Flood		(ii) ESF Actuation			
ALERT		(iii) Hurricane		(iii) (A) Safe S/D Capability			
UNUSUAL EVENT		(iii) Ice/Hail		(iii) (B) Rhr Capability			
50.72 NON-EMERGENCY		(iii) Lighting		(iii) (C) Control of Rad Release			
PHYSICAL SECURITY (73.71)		(iii) Tornado		(iii) (D) Accident Mitigation			
TRANSPORTATION		(iii) Other Natural Phenomenon		(iv) (A) Air Release > 2X App B			
20.403 MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS		(iv) (B) Liq Release > 2X App B			
OTHER		(v) Lost ENS		(v) Offsite Medical			
		(v) Lost Emerg. Assessment		(vi) Offsite Notification			
<div style="text-align: center; margin-top: 10px;">DESCRIPTION</div>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?		YES (Explain above)	NO
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?		YES	NO (Explain above)
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:		ADDITION INFO ON BACK?

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NRC FORM 361

ADDITIONAL INFORMATION

USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>							
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED		
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED		
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED			<input type="checkbox"/> *State release path in description		

	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS:					
ALARM SETPOINTS:					
% T.S. LIMIT (If applicable)					

<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>			
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):			
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -	SECONDARY -
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:			
<p align="center">EVENT DESCRIPTION <i>(Continued from front)</i></p>			

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 77  
DUTIES OF EMERGENCY COORDINATOR

Time

8.6.12 Notify the Nuclear Division Duty Officer (NDDO). If on duty NDDO cannot be reached, notify any NDDO, ECO or System Operations Power Coordinator (last alternate). See the NDDO Schedule or the Emergency Response Directory for telephone numbers, and relay applicable information from the State of Florida Notification Message Form.

8.6.13 If the Onsite Emergency Response Facilities (TSC/OSC) operational consider Emergency Coordinator transfer to TSC.

8.6.14 If the EOF is operational relinquish communication responsibilities with offsite agencies to Recovery Manager at EOF.

8.6.15 Determine the status of the Owner Controlled Area Evacuation. Security has 30 minutes to provide a list of names of personnel not yet accounted for inside the Protected Area.

8.6.16 Reassess plant conditions using Table 1 and Table 2 periodically.

CAUTION: If the EOF is operational and the emergency has been upgraded, it is imperative that the Recovery Manager be notified concurrently with the declaration. This will ensure that the 15 minute notification time limit is not missed.

8.6.17 If upgrading Emergency Classification, proceed to applicable section of this procedure per Table 1, and if the EOF is operational, notify the Recovery Manager promptly.

8.6.18 Every hour, upon termination, or as conditions change, provide notifications to the following if notification responsibilities are with the Emergency Coordinator Onsite:

1. Complete a State of Florida Notification Message Form
2. The Emergency Coordinator shall initial form prior to transmitting information to verify Emergency Coordinator approval.
3. Notify the following of the new information:
  - a. State Warning Point
  - b. NDDO
  - c. Duty Call Supervisor
  - d. Recovery Manager





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EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 78  
DUTIES OF EMERGENCY COORDINATOR

Time

4. Complete an Event Notification Worksheet Form.

5. Notify the NRCOC with the new information.

8.6.19 Using Attachment 1, De-Escalation Guidelines determine if the emergency can be de-escalated or terminated.

8.6.20 If conditions warrant, recommend de-escalation of Site Area Emergency to RM. (Any de-escalation from Site Area Emergency shall be determined by the ECO.)



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 79  
DUTIES OF EMERGENCY COORDINATOR

STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:
 

	NOBLE GASES			IODINES	
DEFAULT (A) _____	CURIES PER SECOND	(C) _____	CURIES PER SECOND		
MEASURED (B) _____	CURIES PER SECOND	(D) _____	CURIES PER SECOND		
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:
 

<u>DISTANCE</u>	<u>THYROID (MREM/HR)</u>	<u>WHOLE BODY (MREM/HR)</u>
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
 (NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)
 

<u>MILES</u>	<u>NO ACTION</u>	<u>SHELTER/SECTORS</u>	<u>EVACUATE/SECTORS</u>
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: \_\_\_\_\_ TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

Revision 12/12/88

4/13/93

SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

Sector Information:

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.

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DUTIES OF EMERGENCY COORDINATOR

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NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	CALLERS NAME	CALL BACK: ENS _____ OR ( ) _____			
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)		(v) Lost Offsite Comms			
		(i) (A) TS Required S/D		(vi) Fire			
POWER MODE BEFORE	POWER MODE AFTER	(i) (B) TS Deviation		(vi) Toxic Gas			
		(iii) Degraded Condition		(vi) Rad Release			
		(ii) (A) Unanalyzed Condition		(vi) Oth Hampering Safe Op			
Event Classifications		(ii) (B) Outside Design Basis		4-Hr Non-Emergency 10 CFR 50.72 (b) (2)			
		(ii) (C) Not Covered by OPs/EOPs		(i) Degrade While S/D			
GENERAL EMERGENCY		(iii) Earthquake		(ii) RPS Actuation (Scram)			
SITE AREA EMERGENCY		(iii) Flood		(ii) ESF Actuation			
ALERT		(iii) Hurricane		(iii) (A) Safe S/D Capability			
UNUSUAL EVENT		(iii) Ice/Hail		(iii) (B) Rhr Capability			
50.72 NON-EMERGENCY		(iii) Lighting		(iii) (C) Control of Rad Release			
PHYSICAL SECURITY (73.71)		(iii) Tornado		(iii) (D) Accident Mitigation			
TRANSPORTATION		(iii) Other Natural Phenomenon		(iv) (A) Air Release > 2X App B			
20.403 MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS		(iv) (B) Liq Release > 2X App B			
OTHER		(v) Lost ENS		(v) Offsite Medical			
		(v) Lost Emerg. Assessment		(vi) Offsite Notification			
<div style="text-align: center; margin-top: 10px;">DESCRIPTION</div>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	



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DUTIES OF EMERGENCY COORDINATOR

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NRC FORM 361      ADDITIONAL INFORMATION      USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>							
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED		
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED		
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED			<i>*State release path in description</i>		

	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS:					
ALARM SETPOINTS:					
% T.S. LIMIT (if applicable)					

<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>			
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):			
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -	SECONDARY -

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:

EVENT DESCRIPTION <i>(Continued from front)</i>	





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Time

8.7 If a General Emergency has been declared complete the following steps:

CAUTION: De-escalation from a General Emergency must be done in concurrence with the ECO.

NOTE: Notification steps may be performed out of sequence in order to meet State of Florida and/or NRC notification time requirements.

8.7.1 The Emergency Log Book should be used to document sequence of events.

CAUTION: If a release or security events are in progress, inform emergency responders of access routes to Emergency Response Facilities. During off-hours, dispatch Security to route incoming emergency responders away from hazardous routes.

NOTE: Prescribed emergency announcements may be omitted or modified as directed by the Emergency Coordinator or his designee, to prevent alarming intruders if security events warrant.

8.7.2 Inform, or have the Control Room inform, site personnel of the emergency via Plant Page System using Page Volume Boost.

1. Make following announcement:

"Attention all personnel; attention all personnel: A General Emergency has been declared on Unit (#) due to (provide brief description of initiating event). All Emergency Response Organization members report to your designated Emergency Response Facility."

2. If not previously done, sound the Emergency Plan Activation alarm.

3. Repeat the announcement.

CAUTIONS:     ◦ ECO approval is required prior to downgrading from a General Emergency.

◦ Radiological, security threats and plant conditions shall also be considered when preparing to evacuate personnel. If large doses will be received during an evacuation, or if security threats jeopardize evacuation routes, it may be more effective to shelter non-essential personnel onsite. Also, take into consideration duration of release, plant conditions, potential for release, and meteorological conditions.

8.7.3 Implement an Owner Controlled Area Evacuation if no significant hazards exist which may threaten evacuees.



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Time

1. If the TSC Health Physics Supervisor is available, discuss release status, release duration, and wind direction to determine applicable evacuation route and Offsite Assembly Area.
2. Notify the Security Shift Specialist for an evacuation of the Owner Controlled Area, including non-essential personnel from the Protected Area, and instruct them to implement EPIP-20110, Criteria for a conduct of an Owner Controlled Area Evacuation, and Security Force Instruction (SFI) 6307, Emergency Evacuation.
3. Notify the Watch Engineer of Units 1 and 2 of the Site Evacuation and instruct them to initiate a roster of personnel left in the fossil units for shutdown of the fossil units.
4. Inform, or have Control Room personnel inform, site personnel via Plant Page System and complete the following:

CAUTION: If significant release (process monitors offscale or other indications) and/or security related (intruders, bomb threat, etc) events are in progress, inform emergency responders AND site evacuees of best access and egress routes to take from site to minimize hazards. During off-hours, dispatch Security to route incoming emergency responders away from hazardous routes.

- a. Make the following announcement using Page Volume Boost:

"Attention all personnel; attention all personnel: An Owner controlled Area Evacuation has been implemented. All Emergency Response Organization members report to your designated Emergency Response Facility. All other personnel evacuate to (designated Offsite Assembly Area) by (route to Offsite Assembly Area)."

- b. Sound the Site Evacuation Alarm.

- c. Make the following announcement using Page Volume Boost:

"Attention all personnel; attention all personnel: An Owner Controlled Area Evacuation has been implemented. All Emergency Response Organization members report to your designated Emergency Response Facility. All other personnel evacuate to (designated Offsite Assembly Area) by (route to Offsite Assembly Area)."



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 85  
DUTIES OF EMERGENCY COORDINATOR

Time

- 8.7.4 Notify the TSC Security Supervisor (Security Shift Specialist)
1. To discuss the potential for the suspension of all or some safeguards (Reference Section 3.2.4).
  2. Provide accountability information as needed (names and badge numbers).
- 8.7.5 If there is a localized emergency (fire, high radiation, toxic gas):
1. Determine an assembly area for personnel evacuated from the affected area.
  2. Announce its type and location, instruct personnel to stand clear and report to the designated assembly area.
  3. Sound applicable alarm, if not previously done.
  4. Announce its type and location, instruct personnel to stand clear and report to the designated assembly area.
  5. Initiate Search and Rescue as required.
- 8.7.6 If the Onsite Emergency Response Facilities are operational consider Emergency Coordinator transfer to TSC.
- NOTE: If plant events (radiological or security threat considerations) warrant, alternate facilities and/or routes to these facilities may be necessary. Refer to precautions.
- 8.7.7 If not previously done, instruct STA to initiate activation of the Onsite Emergency Response Facilities (ERF) per EPIP-20104.
- 8.7.8 Update onsite emergency responders of the emergency conditions.
- 8.7.9 If the EOF is operational relinquish communication responsibilities to offsite agencies to Recovery Manager at EOF.



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 86  
DUTIES OF EMERGENCY COORDINATOR

Time

- CAUTIONS:
- Notification to the State Warning Point is required within 15 minutes of emergency classification.
  - Notification to the NRCOC is required to immediately follow the State notification and no later than one (1) hour.
  - Collection of Release Rate Data shall not delay State of Florida or NRC notifications.
  - If a transitory event has occurred, notifications are still required using this procedure.
  - If during the notification process it becomes necessary to upgrade the emergency classification, stop the current notification process and proceed to the steps corresponding to the new emergency classification.

8.7.10 If offsite (State/County) notification responsibilities ARE with the Emergency Coordinator onsite, complete the following steps:

1. Complete the State of Florida Notification Message Form.
2. The Emergency Coordinator shall initial the form prior to transmitting the information to verify Emergency Coordinator approval.

NOTE: State Warning Point may request verification call back. If requested, they will call in on the black bell phone (ringmaster) or cellular phone in the Control Room.

3. Within 15 minutes of classifying the General Emergency notify the State Warning Point in Tallahassee and relay information from the State of Florida Notification Message Form just completed via one of the following:
  - a. Hot Ring Down Telephone (22)
  - b. NAWAS
  - c. Commercial Telephone (refer to ERD)
  - d. Cellular Phone (refer to ERD)
  - e. Local Government Radio





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EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 87  
DUTIES OF EMERGENCY COORDINATOR

Time  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Complete an Event Notification Worksheet Form.
5. Immediately after the notification to State/County agencies of the General Emergency contact the NRCOC in Bethesda and relay the information from the Event Notification Worksheet just completed via one of the following:
  - a. ENS
  - b. Commercial Telephone (refer to ERD)
  - c. Cellular Telephone (refer to ERD)



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**EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 88**  
**DUTIES OF EMERGENCY COORDINATOR**

**STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS**

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_
2. SITE
  - A. CRYSTAL RIVER UNIT 3
  - B. ST. LUCIE UNIT 1
  - C. ST. LUCIE UNIT 2
  - D. TURKEY POINT UNIT 3
  - E. TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION
  - A. NOTIFICATION OF UNUSUAL EVENT
  - B. ALERT
  - C. SITE AREA EMERGENCY
  - D. GENERAL EMERGENCY
4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_
5. INCIDENT DESCRIPTION or UPDATE  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_
7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)
  - A. NO RELEASE
  - B. POTENTIAL (POSSIBLE) RELEASE
  - C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_
  - D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_
8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)
  - A. RADIOACTIVE GASES \_\_\_\_\_
  - B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_
  - C. RADIOACTIVE LIQUIDS \_\_\_\_\_
  - D. RADIOACTIVE SOLIDS \_\_\_\_\_
  - E. NON-RADIOACTIVE GASES \_\_\_\_\_
  - F. OTHER \_\_\_\_\_
9. RELEASE RATE:

	NOBLE GASES			IODINES	
DEFAULT (A) _____	CURIES PER SECOND.	(C) _____		CURIES PER SECOND	
MEASURED (B) _____	CURIES PER SECOND	(D) _____		CURIES PER SECOND	
10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:

<u>DISTANCE</u>	<u>THYROID (MREM/HR)</u>	<u>WHOLE BODY (MREM/HR)</u>
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____
11. METEOROLOGICAL DATA (AT 10 METERS):
  - A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION
  - B. SECTORS AFFECTED \_\_\_\_\_
  - C. WIND SPEED \_\_\_\_\_ MPH
  - D. STABILITY CLASS \_\_\_\_\_
12. RECOMMENDED PROTECTIVE ACTIONS:
  - A. NO RECOMMENDATIONS AT THIS TIME.
  - B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
 (NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)
 

<u>MILES</u>	<u>NO ACTION</u>	<u>SHELTER/SECTORS</u>	<u>EVACUATE/SECTORS</u>
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____
13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_
14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_

Revision 12/12/88

**EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 89**  
**DUTIES OF EMERGENCY COORDINATOR**

**SECTOR REFERENCE:**

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

**Sector Information:**

WIND SECTOR	WIND FROM	DEGREES	WIND TOWARD	SECTORS AFFECTED
[A]	N	348.5-11.5	S	H J K
[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

**STABILITY CLASSIFICATION REFERENCE:**

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

**CLASSIFICATION OF ATMOSPHERIC STABILITY**

Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 90  
DUTIES OF EMERGENCY COORDINATOR

4/13/93

NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	CALLERS NAME	CALL BACK: ENS _____ OR ( ) _____			
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)		(v) Lost Offsite Comms			
		(i) (A) TS Required S/D		(vi) Fire			
POWER MODE BEFORE	POWER MODE AFTER	(i) (B) TS Deviation		(vi) Toxic Gas			
		(iii) Degraded Condition		(vi) Rad Release			
Event Classifications		(ii) (A) Unanalyzed Condition		4-Hr Non-Emergency 10 CFR 50.72 (b) (2)			
		(ii) (B) Outside Design Basis					
		(ii) (C) Not Covered by OPs/EOPs		(i) Degrade While S/D			
		(iii) Earthquake		(ii) RPS Actuation (Scram)			
GENERAL EMERGENCY		(iii) Flood		(ii) ESF Actuation			
SITE AREA EMERGENCY		(iii) Hurricane		(iii) (A) Safe S/D Capability			
ALERT		(iii) Ice/Hail		(iii) (B) Rhr Capability			
UNUSUAL EVENT		(iii) Lighting		(iii) (C) Control of Rad Release			
50.72 NON-EMERGENCY		(iii) Tornado		(iii) (D) Accident Mitigation			
PHYSICAL SECURITY (73.71)		(iii) Other Natural Phenomenon		(iv) (A) Air Release > 2X App B			
TRANSPORTATION		(iv) ECCS Discharge to RCS		(iv) (B) Liq Release > 2X App B			
20.403 MATERIAL/EXPOSURE		(v) Lost ENS		(v) Offsite Medical			
OTHER		(v) Lost Emerg. Assessment		(vi) Offsite Notification			
<div style="text-align: center; margin-bottom: 10px;">DESCRIPTION</div>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	

X



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 91  
DUTIES OF EMERGENCY COORDINATOR

4/13/93

NRC FORM 361

ADDITIONAL INFORMATION

USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>							
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED		
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED		
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED			<i>*State release path in description</i>		

	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS:					
ALARM SETPOINTS:					
% T.S. LIMIT (if applicable)					

<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>			
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):			
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -	SECONDARY -
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:			
<p align="center">EVENT DESCRIPTION <i>(Continued from front)</i></p>			





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 93  
DUTIES OF EMERGENCY COORDINATOR

4/13/93

STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

1. A. TIME/DATE \_\_\_\_\_ B. REPORTED BY (NAME/TITLE) \_\_\_\_\_

2. SITE  
A. CRYSTAL RIVER UNIT 3  
B. ST. LUCIE UNIT 1  
C. ST. LUCIE UNIT 2  
D. TURKEY POINT UNIT 3  
E. TURKEY POINT UNIT 4

3. ACCIDENT CLASSIFICATION  
A. NOTIFICATION OF UNUSUAL EVENT  
B. ALERT  
C. SITE AREA EMERGENCY  
D. GENERAL EMERGENCY

4. EMERGENCY DECLARATION TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

5. INCIDENT DESCRIPTION or UPDATE  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. INJURIES A. CONTAMINATED/NUMBER \_\_\_\_\_ B. NON-CONTAMINATED/NUMBER \_\_\_\_\_

7. SITUATION INVOLVES: (NOTE: IF A, GO TO ITEM 11. OTHERWISE CONTINUE WITH REST OF FORM.)  
A. NO RELEASE  
B. POTENTIAL (POSSIBLE) RELEASE  
C. A RELEASE IS OCCURRING--EXPECTED DURATION \_\_\_\_\_  
D. A RELEASE OCCURRED, BUT STOPPED--DURATION \_\_\_\_\_

8. TYPE OF RELEASE IS: (BLANKS ARE FOR SPECIFIC NUCLIDES OR GASES, I.E., I-131, CS-137)  
A. RADIOACTIVE GASES \_\_\_\_\_ D. RADIOACTIVE SOLIDS \_\_\_\_\_  
B. RADIOACTIVE AIRBORNE PARTICULATES \_\_\_\_\_ E. NON-RADIOACTIVE GASES \_\_\_\_\_  
C. RADIOACTIVE LIQUIDS \_\_\_\_\_ F. OTHER \_\_\_\_\_

9. RELEASE RATE:  
DEFAULT (A) \_\_\_\_\_ NOBLE GASES (C) \_\_\_\_\_ IODINES  
MEASURED (B) \_\_\_\_\_ CURIES PER SECOND (D) \_\_\_\_\_ CURIES PER SECOND

10. ESTIMATE OF PROJECTED OFFSITE DOSE RATE:  

DISTANCE	THYROID (MREM/HR)	WHOLE BODY (MREM/HR)
1 MILE (SITE BOUNDARY)	_____	_____
2 MILES	_____	_____
5 MILES	_____	_____
10 MILES	_____	_____

11. METEOROLOGICAL DATA (AT 10 METERS):  
A. WIND DIRECTION (FROM) \_\_\_\_\_ DEGREES OR COMPASS DIRECTION  
B. SECTORS AFFECTED \_\_\_\_\_  
C. WIND SPEED \_\_\_\_\_ MPH  
D. STABILITY CLASS \_\_\_\_\_

12. RECOMMENDED PROTECTIVE ACTIONS:  
A. NO RECOMMENDATIONS AT THIS TIME.  
B. NOTIFY THE PUBLIC TO TAKE THE FOLLOWING PROTECTIVE ACTIONS:  
(NOTE: IF MESSAGE REFERS TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)  

MILES	NO ACTION	SHELTER/SECTORS	EVACUATE/SECTORS
0--2	_____	_____	_____
2--5	_____	_____	_____
5--10	_____	_____	_____
10--	_____	_____	_____

13. EVENT TERMINATED: A. NO: \_\_\_\_\_ B. YES: TIME \_\_\_\_\_ DATE \_\_\_\_\_

14. MESSAGE RECEIVED BY: NAME \_\_\_\_\_ TIME \_\_\_\_\_ DATE \_\_\_\_\_

Revision 12/12/88

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 94  
DUTIES OF EMERGENCY COORDINATOR

4/13/93

SECTOR REFERENCE:

The chart below can be used to determine sectors affected by a radiological release, through comparison with wind direction from the meteorological recorders in the control room.

Sector Information:

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[B]	NNE	11.5-33.5	SSW	J K L
[C]	NE	33.5-56.5	SW	K L M
[D]	ENE	56.5-78.5	WSW	L M N
[E]	E	78.5-101.5	W	M N P
[F]	ESE	101.5-123.5	WNW	N P Q
[G]	SE	123.5-146.5	NW	P Q R
[H]	SSE	146.5-168.5	NNW	Q R A
[J]	S	168.5-191.5	N	R A B
[K]	SSW	191.5-213.5	NNE	A B C
[L]	SW	213.5-236.5	NE	B C D
[M]	WSW	236.5-258.5	ENE	C D E
[N]	W	258.5-281.5	E	D E F
[P]	WNW	281.5-303.5	ESE	E F G
[Q]	NW	303.5-326.5	SE	F G H
[R]	NNW	326.5-348.5	SSE	G H J

STABILITY CLASSIFICATION REFERENCE:

The below chart can be used to determine atmospheric stability classification for notification to the State of Florida. Primary method is from  $\Delta T$  via the South Dade (60 meter) tower. Backup method is from Sigma Theta via the Ten Meter Tower. If neither meteorological tower is available, Stability Classification shall be determined using data from Homestead Air Force Base (See EPIP-20126, Off-Site Dose Calculations).

CLASSIFICATION OF ATMOSPHERIC STABILITY			
Stability Classification	Pasquill Categories	Primary Delta T (°F)	Backup Sigma Theta Range (Degrees)
Extremely unstable	A	$\Delta T \leq -1.7$	22.5 or more
Moderately unstable	B	$-1.7 < \Delta T \leq -1.5$	17.5 to 22.4
Slightly unstable	C	$-1.5 < \Delta T \leq -1.4$	12.5 to 17.4
Neutral	D	$-1.4 < \Delta T \leq -0.5$	7.5 to 12.4
Slightly stable	E	$-0.5 < \Delta T \leq 1.4$	3.8 to 7.4
Moderately stable	F	$1.4 < \Delta T \leq 3.6$	2.1 to 3.7
Extremely stable	G	$3.6 < \Delta T$	2.0 or less

When available, all meteorological information needed to fill out Section II on the Notification Message Form is available from the Emergency Coordinators Summary Sheet (EPIP-20126). The Summary sheet shall be filled out by Chemistry and given to the Emergency Coordinator.

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 95  
DUTIES OF EMERGENCY COORDINATOR

4/13/93

NRC FORM 361				US NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER			
<b>EVENT NOTIFICATION WORKSHEET</b>							
NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	CALLERS NAME	CALL BACK: ENS _____ OR ( ) _____			
EVENT TIME & ZONE	EVENT DATE / /	1-Hr Non-Emergency 10 CFR 50.72 (b) (1)		(v) Lost Offsite Comms			
		(i) (A) TS Required S/D		(vi) Fire			
POWER MODE BEFORE	POWER MODE AFTER	(ii) (B) TS Deviation		(vi) Toxic Gas			
		(iii) Degraded Condition		(vi) Rad Release			
Event Classifications		(ii) (A) Unanalyzed Condition		4-Hr Non-Emergency 10 CFR 50.72 (b) (2)			
		(ii) (B) Outside Design Basis					
GENERAL EMERGENCY		(iii) (C) Not Covered by OPs/EOPs		(i) Degrade While S/D			
SITE AREA EMERGENCY		(iii) Earthquake		(ii) RPS Actuation (Scram)			
ALERT		(iii) Flood		(ii) ESF Actuation			
UNUSUAL EVENT		(iii) Hurricane		(iii) (A) Safe S/D Capability			
50.72 NON-EMERGENCY		(iii) Ice/Hail		(iii) (B) Rhr Capability			
PHYSICAL SECURITY (73.71)		(iii) Lighting		(iii) (C) Control of Rad Release			
TRANSPORTATION		(iii) Tornado		(iii) (D) Accident Mitigation			
20.403 MATERIAL/EXPOSURE		(iii) Other Natural Phenomenon		(iv) (A) Air Release > 2X App B			
OTHER		(iv) ECCS Discharge to RCS		(iv) (B) Liq Release > 2X App B			
		(v) Lost ENS		(v) Offsite Medical			
		(v) Lost Emerg. Assessment		(vi) Offsite Notification			
<div style="text-align: center; margin-top: 10px;">DESCRIPTION</div>							
Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.							
NOTIFICATIONS NRC RESIDENT	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED	ESTIMATE FOR RESTART DATE:	ADDITION INFO ON BACK?	



**EMERGENCY PLAN IMPLEMENTING PROCEDURE 20101, PAGE 96**  
**DUTIES OF EMERGENCY COORDINATOR**

4/13/93

NRC FORM 361

ADDITIONAL INFORMATION

USNRC OPERATIONS CENTER

<b>RADIOLOGICAL RELEASES CHECK OR FILL IN APPLICABLE ITEMS</b> <i>(specific details/explanations should be covered in event description)</i>						
<input type="checkbox"/> LIQUID RELEASE	<input type="checkbox"/> GASEOUS RELEASE	<input type="checkbox"/> UNPLANNED RELEASE	<input type="checkbox"/> PLANNED RELEASE	<input type="checkbox"/> ONGOING	<input type="checkbox"/> TERMINATED	
<input type="checkbox"/> MONITORED	<input type="checkbox"/> UNMONITORED	<input type="checkbox"/> OFFSITE RELEASE	<input type="checkbox"/> T.S. EXCEEDED	<input type="checkbox"/> RM ALARMS	<input type="checkbox"/> AREAS EVACUATED	
<input type="checkbox"/> PERSONNEL EXPOSED OR CONTAMINATED		<input type="checkbox"/> OFFSITE PROTECTIVE ACTIONS RECOMMENDED		<input type="checkbox"/> *State release path in description		
	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						
	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER	
RAD MONITOR READINGS:						
ALARM SETPOINTS:						
% T.S. LIMIT (If applicable)						
<b>RCS OR SG TUBE LEAKS CHECK OR FILL IN APPLICABLE ITEMS:</b> <i>(specific details/explanations should be covered in event description)</i>						
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):						
LEAK RATE:	UNITS: gpm/gpd	T.S. Limits:	SUDDEN OR LONG TERM DEVELOPMENT:			
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -		SECONDARY -		
LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL:						
EVENT DESCRIPTION <i>(Continued from front)</i>						



ATTACHMENT 1  
(Page 1 OF 1)

DE-ESCALATION GUIDELINES

Discussion

Once the Plant classifies a Site Area Emergency, or General Emergency, only the Emergency Control Officer has the authority to de-escalate to a lower classification level. The following guidelines provide points to consider when de-escalation may be appropriate.

1. Review Plant Emergency Classification Table (PTN EPIP-20101), to assure that classification criteria to enter event is no longer applicable, or referenced situations are under control.
2. Verify additionally that the plant is stable, under control, and trend or prognosis indicates that improvement is the most likely prospect. consider the following:
  - a. Subcriticality
  - b. Core cooling mode
  - c. Heat sink mode
  - d. RCS Pressure Boundary Integrity
  - e. Inventory Control (Primary and Secondary Coolant)
3. Verify there is no foreseeable likelihood of a significant uncontrolled release. consider the following:
  - a. Containment Pressure
  - b. Containment/Auxiliary Building Radiation Levels
  - c. Waste Gas Storage Tank Pressures and Activities
  - d. Contaminated Water Volumes and Activities
4. Verify long-term staffing for both the site and EOF is organized in place as appropriate for the event.





FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING PROCEDURE 20111  
JUNE 1, 1993

1.0 Title:

RE-ENTRY

*This procedure may be affected by an O T S C (On The Spot Change) verify information prior to use*  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change dated 6/1/93 Reviewed by Plant Nuclear Safety Committee: 93-134

Approved by Plant General Manager: 6/1/93 Periodic Review Due: 10/15/94

Implementation Date: 7/26/93

2.2 List of Effective Pages:

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
1	06/01/93	5	06/01/93	9	06/01/93
2	04/16/91	6	06/01/93	10	06/01/93
3	06/01/93	7	06/01/93		
4	06/01/93	8	06/01/93		

3.0 Scope:

3.1 Purpose:

This procedure provides guidelines for the formation of Emergency Response Teams (ERT) in an emergency or recovery and provides instructions on emergency exposure controls during re-entry.

3.2 Discussion:

3.2.1 Re-entry actions shall be either emergency or recovery actions and be authorized by the Emergency Coordinator.

3.2.2 Exposures to emergency workers shall be maintained as low as reasonably achievable (ALARA) and if possible be maintained within site specific radiological exposure guidelines and/or limits identified in 10 CFR 20.

3.2.3 As deemed necessary, Emergency Response Teams may be dispatched to perform re-entry activities including accident damage assessment and mitigation, hydrogen recombiner set up and operation, and PASS sample gathering.

RTSs 86-1580, 88-1572, 89-3436, 91-1094, 93-0844



3.3 Authority:

Turkey Point Plant Radiological Emergency Plan

3.4 Definitions:

- 3.4.1 Emergency Re-entry Actions - actions taken within the Protected Area to mitigate an emergency
- 3.4.2 Recovery Re-entry Actions - actions taken within the Protected Area to return the plant to its pre-accident conditions
- 3.4.3 Emergency Exposure - radiation exposures during a declared emergency to individuals involved in mitigating or lifesaving actions which may exceed 10 CFR 20 limits.

4.0 Precautions:

- 4.1 The following guidelines for emergency exposure of personnel shall be followed during the re-entry operation:
  - 4.1.1 Personnel authorized to receive exposures in excess of regulatory limits shall be volunteers who are broadly familiar with the risks involved and the tasks to be performed.
  - 4.1.2 Emergency exposure shall be limited to once in a lifetime for any individual
  - 4.1.3 Women capable of reproduction shall not be authorized to receive exposures in excess of legal limits.
  - 4.1.4 Every effort shall be made to maintain personnel exposures within regulatory limits and as low as reasonably achievable.
  - 4.1.5 Personnel performing actions that would not directly mitigate the event, minimize escalation of the event or minimize effluent releases shall not receive exposures exceeding five rem, whole body, or twenty five rem, thyroid. These limits include the individual's current annual exposure.
  - 4.1.6 Personnel performing actions that mitigate escalation of the event or actions that minimize personnel exposures or effluent releases shall not receive exposures exceeding twelve rem, whole body, or sixty rem, thyroid.
  - 4.1.7 Personnel performing actions that decrease the severity of the event or terminate the processes causing the event or rescue of personnel from non-life threatening situations shall not receive exposures exceeding 25 rem, whole body, or 125 rem, thyroid.



4.1.8 Personnel taking part in the rescue of personnel from life threatening situations should not receive exposures exceeding 75 rem, whole body. Personnel authorized to perform these actions should be volunteers above the age of 45.

4.1.9 Some Emergency Response Team Activities, such as personnel rescue, may require that Emergency Response Teams be dispatched from the OSC quickly without the benefit of protective clothing and extensive briefings. Such activities shall be carefully evaluated and monitored to maximize personnel safety.

4.2 Upon OSC activation an ERT dispatched from the OSC shall consist of at least two persons.

4.3 The Emergency Coordinator has the authority to waive individuals emergency response training requirements.

5.0 Responsibilities:

5.1 The Emergency Coordinator is responsible for:

5.1.1 Authorizing emergency exposures to exceed 10 CFR 20 limits.

5.1.2 Authorizing all re-entry activities

5.2 The TSC Health Physics Supervisor is responsible for:

5.2.1 Ensuring that exposure limits are followed by ERT members.

5.2.2 Coordinating all Health Physics response activities.

5.3 The OSC Mechanical Supervisor, OSC Electrical Supervisor, OSC I&C Supervisor, OSC Chemistry Supervisor, OSC Health Physics Supervisor, OSC Operations Supervisor are responsible for:

5.3.1 Planning re-entry activities and assigning qualified personnel to the ERTs as determined by the OSC Supervisor.

5.3.2 Ensuring ERT members are briefed and debriefed for re-entry activities.

5.4 The OSC Supervisor is responsible for coordinating the activities of all ERTs.

5.5 The OSC Health Physics Supervisor is responsible for the following:

5.5.1 Ensuring that ERTs receive a radiological briefing.

5.5.2 Ensuring all HP activities in the OSC are coordinated with the OSC and other discipline supervisors.



6.0 References/Commitment Documents:

6.1 References:

- 6.1.1 0-ADM-600, Health Physics Manual
- 6.1.2 3/4-EOP-FR-Z.1, Response to High Containment Pressure
- 6.1.3 0-NCZP-051.1, Obtaining a Containment Air Sample During Emergency Conditions
- 6.1.4 0-NCZP-094.1, Obtaining a PASS Sample During Emergency Conditions
- 6.1.5 3/4-ONOP-094.1, Post Accident H<sub>2</sub> Monitor Startup
- 6.1.6 3/4-ONOP-094.3, Hydrogen Recombiner Acquisition, Installation, and Operation
- 6.1.7 EPIP-20101, Duties of Emergency Coordinator
- 6.1.8 EPIP-20132, Technical Support Center (TSC) Activation and Operation
- 6.1.9 EPIP-20133, Operations Support Center (OSC) Activation and Operation
- 6.1.10 Turkey Point Plant Radiological Emergency Plan
- 6.1.11 10 CFR 50.47, Emergency Plans
- 6.1.12 Letter JNS-HP-87-19, Policy Statement "Emergency Exposure Limits" Revision 1
- 6.1.13 JPN-PTN-SENJ-90-073, Safety Evaluation Related to Operation of the Post Accident Containment Ventilation System at Turkey Point Units 3 and 4, Rev. 1

6.2 Commitment Documents:

- 6.2.1 None

7.0 Records and Notifications:

- 7.1 Upon deactivation of the OSC, the following completed documents shall be transmitted to the Emergency Preparedness Coordinator who shall review and retain for archival purposes:

NOTE: Personnel exposure records and radiological survey records are retained by Health Physics in accordance with Quality Assurance Records requirements.

- 7.1.1 Copies of Emergency Responders' Bound Logs
- 7.1.2 Copies of ERT Radiological Survey Records
- 7.1.3 Other records developed to record emergency response activities.





8.0 Instructions:

8.1 Upon receiving the request from the TSC, the OSC Supervisor should perform the following:

8.1.1 Based on the tasks to be completed, assign an OSC discipline supervisor responsibility for each organized ERT.

CAUTION: The completion of team briefing forms shall not delay the dispatch of the ERT. Teams may be briefed and dispatched prior to the completion of the forms.

8.1.2 Ensure the OSC discipline supervisor responsible for the ERT has completed the appropriate sections of a form similar to Attachment 1, Team Briefing/Debriefing Form.

8.1.3 Ensure the OSC Health Physics Supervisor has completed the following tasks:

1. Completed the appropriate sections of a form similar to Attachment 1, Team Briefing/Debriefing Form.
2. Given the ERT a radiological brief that should include the following:
  - a. The maximum allowable dose that may be received by the ERT members
  - b. The stay times for the ERT
  - c. Possible travel routes for the ERT in order to minimize radiological exposures and contamination
3. Issued dosimetry capable of measuring the anticipated maximum exposure and type of exposure, as required.
4. Issued, as necessary, protective clothing and respiratory protection.
5. Issued adequate survey instrumentation and equipment.



6. For those emergency exposures that may exceed 10 CFR 20 limits, the following shall apply:
- a. Personnel authorized to receive exposures in excess of 10 CFR 20 limits shall be volunteers who are broadly familiar with the risks involved and the tasks to be completed and who shall attest to their volunteer status by completing and signing their individual section of a form similar to Attachment 2, Emergency Exposure Authorization Form.
  - b. EC authorization shall be obtained for emergency exposures that may exceed 10 CFR 20 limits and shall be documented on a form similar to Attachment 2, Emergency Exposure Authorization Form.
  - c. Emergency exposures to any individual shall be limited to once in a lifetime to that individual.
  - d. Women capable of reproduction shall not be authorized to receive exposures in excess of legal limits.
  - e. The emergency exposure limit for personnel performing actions that would not directly mitigate the event, minimize escalation of the event, or minimize effluent releases shall be 5 rem, whole body, or 25 rem, thyroid.
  - f. The emergency exposure limit for personnel performing actions that mitigate escalation of the event, or actions that minimize personnel exposures, or effluent releases shall be 12 rem, whole body, or 60 rem, thyroid.
  - g. The emergency exposure limit for personnel performing actions that decrease the severity of the event, or terminate the processes causing the event, or rescue of personnel from non-life threatening situations shall be 25 rem, whole body, or 125 rem, thyroid.
  - h. The emergency exposure limit for personnel taking part in the rescue of personnel from life threatening situations should be 75 rem, whole body. Personnel authorized to perform these actions should be volunteers above the age of 45.
  - i. When the emergency condition is terminated, ensure the Nuclear Division Medical Director is notified of any emergency exposure to perform a medical review.

8.1.4 Ensure the ERT has received both radiological and task briefings.



- 8.2 Upon dispatching the ERT, the OSC discipline supervisor responsible for the ERT should:
  - 8.2.1 Maintain communications with the ERT.
  - 8.2.2 Update the ERT to changing conditions.
  - 8.2.3 Periodically update the OSC Supervisor and OSC Status Boards to reflect current status and new information. |
  - 8.2.4 Periodically assess the need for additional manpower or equipment support.
  - 8.2.5 Assess physical strain on the ERT due to factors such as heat, time in respirator or SCBA, and type of work being done.
  - 8.2.6 If SCBA was required, estimate the time left on the bottled air.
- 8.3 ERT members shall perform the following:
  - 8.3.1 Attend pre-job briefings prior to dispatch to the emergency scene.
  - 8.3.2 Utilize protective equipment prescribed by the cognizant supervisors.
  - 8.3.3 Follow instructions for maintaining Emergency Response Facility accountability.
  - 8.3.4 Follow instructions of the Health Physics ERT member regarding radiological conditions during travel and task performance. |
  - 8.3.5 Follow suggested travel paths to the work location, if possible, without endangering personnel.
  - 8.3.6 Note environmental and radiological conditions for recording and reporting to cognizant supervisors.
  - 8.3.7 Perform assigned tasks at the work scene quickly and efficiently with special attention to industrial and radiological safety measures.
  - 8.3.8 Report significant occurrences to cognizant supervisors via hand held radios or other available communication systems.
  - 8.3.9 Following completion of assigned tasks, report back to the OSC for personnel accountability, monitoring, debriefing, and completion of records.



- 8.4 Upon the return of the ERT, the OSC discipline supervisor responsible for the ERT should perform the following:
  - 8.4.1 Debrief the ERT by completing their team brief/debriefing form.
  - 8.4.2 Ensure that any significant changes or new observations are reported to the appropriate supervisors and the OSC Supervisor:
  - 8.4.3 Ensure that new or revised information obtained by the ERT is displayed and logged appropriately.
  - 8.4.4 Inform the OSC Supervisor of the status of the ERT and task results.
  - 8.4.5 Ensure that status boards are updated to reflect ERT status and task results.
  - 8.4.6 Restrict further exposure and if necessary, ensure the provision of medical care to individuals receiving emergency exposures.
- 8.5 Operation of the Post Accident Sampling System
  - 8.5.1 Following an accident, a sampling from the Post Accident Sampling System (PASS) may be obtained to determine the condition of the plant. Samples should be obtained per the instructions in procedures O-NCZP-094.1, Obtaining a PASS Sample During Emergency Conditions, O-NCZP-051.1, Obtaining a Containment Air Sample During Emergency Conditions, and 3/4-ONOP-094.1, Post Accident H2 Monitor Startup, as necessary.
- 8.6 Operation of the Post Accident Containment Ventilation System
  - 8.6.1 The Post Accident Containment Ventilation System (PACVS) should be placed in service per the instructions in procedures 3/4-EOP-FR-Z.1, Response to High Containment Pressure, as necessary.
- 8.7 Operation of the Hydrogen Recombiner
  - 8.7.1 The Hydrogen Recombiner should be placed in service per the instructions in procedures 3/4-ONOP-094.3, Hydrogen Recombiner Acquisition, Installation, and Operation, as necessary.

END OF TEXT





ATTACHMENT 1

TEAM BRIEF/DEBRIEFING FORM																							
Team Number: _____	Date: _____																						
I. Team Members: _____ _____ _____	<table style="width: 100%; border: none;"> <tr><td>OSC Supv .....</td><td>X-6480</td></tr> <tr><td>OSC Chem Supv .....</td><td>X-6978</td></tr> <tr><td>OSC HP Supv .....</td><td>X-6575</td></tr> <tr><td>OSC HP Comm .....</td><td>X-6103</td></tr> <tr><td>OSC Ops Supv .....</td><td>X-7168</td></tr> <tr><td>OSC Mech Supv .....</td><td>X-6680</td></tr> <tr><td>OSC Elect Supv .....</td><td>X-6681</td></tr> <tr><td>OSC I&amp;C Supv .....</td><td>X-6682</td></tr> <tr><td>OSC Security .....</td><td>X-6779</td></tr> <tr><td>General .....</td><td>X-7169</td></tr> </table>			OSC Supv .....	X-6480	OSC Chem Supv .....	X-6978	OSC HP Supv .....	X-6575	OSC HP Comm .....	X-6103	OSC Ops Supv .....	X-7168	OSC Mech Supv .....	X-6680	OSC Elect Supv .....	X-6681	OSC I&C Supv .....	X-6682	OSC Security .....	X-6779	General .....	X-7169
OSC Supv .....	X-6480																						
OSC Chem Supv .....	X-6978																						
OSC HP Supv .....	X-6575																						
OSC HP Comm .....	X-6103																						
OSC Ops Supv .....	X-7168																						
OSC Mech Supv .....	X-6680																						
OSC Elect Supv .....	X-6681																						
OSC I&C Supv .....	X-6682																						
OSC Security .....	X-6779																						
General .....	X-7169																						
Task Description: _____ _____																							
Location/Travel Route: _____																							
Anticipated Radiological Conditions:																							
Exposure Levels: _____	Average General Area: _____ mR/hr Hot Spots: Yes <input type="checkbox"/> No <input type="checkbox"/> Intensity: _____ mR/hr Maximum Allowable Dose: _____ mR Stay Time: _____ Extremity or Multibadging (Circle One) Surface Contamination: Surface (dpm/100 cm <sup>2</sup> ): _____ $\beta/\gamma$ _____ $\alpha$ Is contamination wet? Yes <input type="checkbox"/> No <input type="checkbox"/> Plastics? Yes <input type="checkbox"/> No <input type="checkbox"/> Airborne Activity: _____ MPC _____ $\mu\text{Ci/ml}$ Respiratory Protection? Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, type: RC FA BH SCBA (Circle) If No, Faceshield?: Yes <input type="checkbox"/> No <input type="checkbox"/>																						
II. Team Briefing Information:																							
System/Component: _____ Isolation Required: Yes <input type="checkbox"/> No <input type="checkbox"/> Safety: _____ Equipment/Instrumentation: _____ Communications Method/Backup/Frequency: _____ Special Instructions (keys required, SCBA stay times, etc.): _____ _____																							
Assignment Briefing By: _____ Responsible Department Supervisor		Time: _____																					
Radiological Briefing By: _____ Health Physics		Time: _____																					
Team Dispatch Approved: _____ OSC Supervisor		Time Team Out: _____																					
III. Team Debriefing Information:																							
Task Completed: ..... Yes <input type="checkbox"/> No <input type="checkbox"/> Additional Entry Required: ... Yes <input type="checkbox"/> No <input type="checkbox"/> Shielding/Isolation Removed: . Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Keys Returned: ..... Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		Problems encountered/safety hazards: _____ _____ _____ _____																					
Debriefing Completed By: _____ Responsible Department Supervisor		Time Team In: _____ Time: _____																					



ATTACHMENT 2

EMERGENCY EXPOSURE AUTHORIZATION FORM

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

EMERGENCY EXPOSURE AUTHORIZATION FORM

I have been briefed on the radiological consequences and hazards associated with the authorized emergency exposure, and I have volunteered to perform the task described below.

<u>Name(s) of Individual(s)</u>	<u>Social Security Number</u>	<u>TLD Number</u>	<u>Signature</u>	<u>Time</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Brief Description of Task \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorization Limit: \_\_\_\_\_

Briefed by \_\_\_\_\_  
(Signature)

Time \_\_\_\_\_

OSC Health Physics Supervisor or  
TSC Health Physics Supervisor \_\_\_\_\_  
(Signature)

Time \_\_\_\_\_

Emergency Coordinator \_\_\_\_\_  
(Signature)

Time \_\_\_\_\_

NOTE:

Signatures required by TSC personnel may be authorized by phone.

FINAL PAGE

FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126  
APRIL 7, 1992

1.0 Title:

OFFSITE DOSE CALCULATIONS

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change Dated 4/7/92 Reviewed by Plant Nuclear Safety Committee 92-055

Approved by Plant General Mgr.- Nuclear, 4/7/92 Periodic Review Due: 5/29/94

Implementation Date: 4/13/92

2.2 List of Effective Pages:

<u>Page</u>	<u>Revision Date</u>	<u>Page</u>	<u>Revision Date</u>	<u>Page</u>	<u>Revision Date</u>	<u>Page</u>	<u>Revision Date</u>
1	04/07/92	8	04/07/92	15	04/07/92	22	04/07/92
2	04/07/92	9	04/07/92	16	04/07/92	23	04/07/92
3	04/07/92	10	04/07/92	17	04/07/92	24	04/07/92
4	04/07/92	11	04/07/92	18	04/07/92	25	04/07/92
5	04/07/92	12	04/07/92	19	04/07/92	26	04/07/92
6	04/07/92	13	04/07/92	20	04/07/92	27	04/07/92
7	04/07/92	14	04/07/92	21	04/07/92	28	04/07/92

3.0 Scope:

3.1 Purpose:

3.1.1 This procedure provides a method for estimating thyroid and whole body dose rates and estimating whole body and thyroid doses to support Protective Action Recommendation (PAR) formulation.

3.1.2 This procedure provides a method for reporting Reportable Quantities (RQ) of radionuclides releases pursuant to 40 CFR 302 and 40 CFR 355.

*This procedure may be affected by an O T S C (Or. Rev. Spot Change) verify information prior to use*  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_

RTSs 1253, 87-1452, 88-1473, 89-0630, 90-2373, 91-0399, 92-0446



### 3.2 Discussion:

3.2.1 During any emergency involving release of radioactivity to the environment, the Emergency Plan requires that radiation dose rates and integrated doses to offsite areas within ten miles be calculated. This information will be used in making Protective Action Recommendations and will be an input to the State of Florida Division of Emergency Management (DEM) in determining what offsite protective actions should be taken. When the Technical Support Center or the Emergency Operations Facility are operational, the function of dose calculation will be shifted to one of these locations.

The Chemistry Department Representative should use the computer dose calculation model in the Technical Support Center, when time and manpower resources are available, with this procedure for estimating offsite whole body and thyroid dose rates and integrated doses when releases of radioactivity occur during an emergency. The computer model closely parallels this procedure. Instructions for use of computer are located in the Emergency Dose Calculation User's Manual located in the HP/Chemistry Support Area of the TSC.

3.2.2 Pursuant to 40 CFR 302, Radionuclides are designated as a hazardous substance, which if released, other than federally permitted, (within Technical Specification limits) in a quantity equal to or greater than the revised Reportable Quantities (RQ) Table requires notification to various Agencies.

### 3.3 Authority:

This procedure implements the Turkey Point Plant Radiological Emergency Plan.

### 3.4 Definitions:

3.4.1 Release - During any declared emergency any effluent monitor increase of approximately 10 times/one decade above pre-transient values, or Health Physics detected airborne radioactivity levels in excess of 25 percent MPC outside of plant buildings due to failure of equipment directly associated with the declared plant emergency.

### 4.0 Precautions:

- 4.1 Doses determined in this procedure will be given to the Emergency Coordinator, who will evaluate doses and plant conditions with criteria listed in EPIP-20101, Duties of Emergency Coordinator.
- 4.2 Cumulative Dose Projections should be made on a best estimate basis by projecting the duration of the release if possible. If no reasonable duration of release can be projected, a default value of two hours should be used.
- 4.3 Releases greater than Technical Specifications or Reportable Quantities shall require reports or notifications to the NRC even if no offsite action is required. Ensure reports required by AP-0103.12 and O-ADM-535 are made.





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 3  
OFFSITE DOSE CALCULATIONS

5.0 Responsibilities:

- 5.1 The Emergency Coordinator is responsible for directing that thyroid and whole body dose rates and cumulative doses are calculated during an emergency which involves a release of radioactivity to the environment.
- 5.2 The Chemistry Department representatives are responsible for performing the following:
  - 5.2.1 Calculations in accordance with this procedure.
  - 5.2.2 Ensuring that the Emergency Coordinator receives the most current dose calculations as soon as possible after request of dose rate information and performs RQ calculations as necessary.
  - 5.2.3 Notifying the Chemistry Supervisor or designee as soon as practical for verification of release data. Notification to the Emergency Coordinator will not be delayed because of notification process with the Chemistry Supervisor.

6.0 References/Commitment Documents:

6.1 References

6.1.1 Technical Specification

- 1. Section 3/4.11.1
- 2. Section 3/4.11.2
- 3. Table 3.3-8
- 4. Table 4.11-1
- 5. Table 4.11-2

6.1.2 Plant Procedures

- 1. EPIP-20101, Duties of Emergency Coordinator

6.1.3 Miscellaneous Documents' (i.e., PC/M, Correspondence)

- 1. Turkey Point Plant Radiological Emergency Plan
- 2. Emergency Dose Calculation System User's Manual
- 3. 10 CFR 20, Appendix B
- 4. 40 CFR 302, Reportable Quantity Adjustment-Radionuclides
- 5. 40 CFR 355, Emergency Planning and Notification

6.2 Commitment Documents

- 6.2.1 None



4/7/92

7.0 Records and Notification:

- 7.1 Records of meteorological conditions used to calculate dose rates and doses shall be kept on the attached worksheets or forms containing similar information.
- 7.2 A summary, similar to Attachment 7, shall be given to the Emergency Coordinator, and shall contain:
  - 7.2.1 Meteorological conditions (wind speed, wind direction, and stability).
  - 7.2.2 Projected thyroid and whole body dose and cumulative thyroid and whole body doses at 1, 2, 5 and 10 miles, including sectors affected, and
  - 7.2.3 Default values or actual measurements that were used for dose estimates.
- 7.3 Completed copies of the below listed item(s) constitute Quality Assurance Records and shall be transmitted to Site Document Control QA Records Section for retention in accordance with Quality Assurance Records Program Requirements:
  - 7.3.1 Offsite Dose Calculation Worksheets or computer generated forms conveying similar information.

Instructions:

NOTE: ERDADS may be used to display effluent monitor and meteorological data required by this procedure and the computerized calculation procedure.

8.1 Release Rate Calculation

Four methods are available for determining the release rate.

8.1.1 Method 1: Grab Sample

NOTE: The grab sample method is the preferred method for determination of source term for release rates. However, it is unlikely that Grab Sample results will be available in the early phases of an emergency situation. Therefore, Method 2 (Effluent Monitors) should be used in the initial dose assessment due to potential time limitations in reporting results to outside agencies. The grab sample method should be performed as soon as possible.

1. Use the Grab Sample Data Worksheet (Attachment 1) to evaluate the results of grab sampling.

8.1.2 Method 2: Effluent Monitors

NOTE: Effluent Monitor Data should be used when Grab Sample Data is not available or if there is insufficient time to perform Method 1, as in the early phases of an emergency situation.

Since it will be difficult to analyze grab samples quickly, Effluent Monitor Data should be computed throughout the release and related to Grab Sample Data. This will permit a continuous release rate estimate even when grab sample data is unavailable. Iodine release rate factors may be modified if two or more grab samples indicate that the factors should be modified.

1. Use the Effluent Monitor Data Worksheet (Attachment 2) to evaluate Effluent Monitor Data.

8.1.3 Method 3: Containment High Range Radiation Monitor (CHRRM)

NOTE: The CHRRM monitor should be used in addition to Methods 1 and 2 if a loss of coolant accident (LOCA) has occurred. For example, if the CHRRM reading is high but the plant vent monitor reading is approximately normal, this probably indicates that containment isolation is preventing a release from containment to the plant vent. However, the FSAR design leak rate from containment should still be taken into consideration, as leakage from other penetrations may not register on effluent monitors.

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 6  
OFFSITE DOSE CALCULATIONS

1. Use the Containment High Range Radiation Monitor (CHRRM) Data Worksheet (Attachment 3) to evaluate CHRRM Data.

#### 8.1.4 Method 4: Default Values

NOTE: Default Data should only be used when other methods are not available or applicable.

1. Default values are provided for various accident types in Attachment 4.
2. Use these values as input to the Dose Calculation Worksheet (Attachment 6).

### 8.2 Meteorological Conditions Determination

CAUTION: Ensure that fifteen minute averaged meteorological data is used in offsite dose calculations. Sigma-Theta data does not require averaging.

NOTE: Averaged data is not required for Homestead AFB data. The information is 2 minute averaged.

- 8.2.1 If available, obtain all met data using Method 1. Supplement any missing data by using Method 2. Method 3 should only be used when time does not permit use of Method 2. Indicate the method used for obtaining met data.

1. Method 1: Plant Meteorology Towers: Data from the primary and backup met towers is evaluated using the Plant Meteorology Data Worksheet (Attachment 5). Use primary met tower data when available. Backup met tower data may be substituted for any missing primary met tower data. Stability class and seabreeze factor is determined by using met tower data along with Attachment 5.
2. Method 2: Homestead Air Force Base: Meteorological observations taken at the base are evaluated using Appendix A, HAFB Meteorology Worksheet.
3. Method 3: Default Values (included on Attachment 4, Default Values)

### 8.3 Whole Body and Thyroid Dose Rate and Dose Calculations

- 8.3.1 Follow instructions given on the Dose Calculation Worksheet (Attachment 6).

1. Calculate whole body and thyroid dose rate on Attachment 6, Item 6.
2. Record whole body and thyroid dose, and cumulative dose on Appendix B, Cumulative Dose Tracking Worksheet.



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 7  
OFFSITE DOSE CALCULATIONS

- 8.3.2 Complete Summary Sheet, Attachment 7, and assist the Emergency Coordinator in incorporating this data in the Notification Message Forms in procedure EP-20101, Duties of Emergency Coordinator.

NOTE: Contact Chemistry Supervisor or designee as soon as practical to verify release data after giving summary sheets to the Emergency Coordinator. Do not delay notifications to the Emergency Coordinator.

- 8.3.3 If cumulative Doses must be tracked manually, follow the guidance provided in Appendix B.

8.4 Offsite Dose Calculations using Computer Program.

- 8.4.1 As soon as possible the computerized Emergency Offsite Dose Calculation method should be used for dose calculations, (in preference to manual method). See Appendix C for instructions on use of computer program.

8.5 Evaluating EPA Reportability

NOTE: Appendix D contains forms to assist in this activity.

- 8.5.1 Determine if any of the following conditions have occurred during the Radioactive release:

NOTE: A Nuclear Incident means any occurrence of bodily injury, sickness, disease, death, loss of or damage to property or loss of use of property (Offsite Evacuation) resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear or byproduct material.

1. Dose exceeds any applicable Technical Specification,

AND

2. The release is not exempt under a nuclear incident.

- 8.5.2 If the above conditions are not met, proceed to Step 8.6.

- 8.5.3 Using Radionuclide RQ's listed in 40 CFR 302.4, Appendix B, determine if a RQ limit has been exceeded using the following criteria.

1. If the identity and quantity (in curies) of each Radionuclide in a mixture or solution is known, the ratio between the quantity released and the RQ for the Radionuclide must be determined for each Radionuclide. An RQ is reached if the sum of the ratios of the Radionuclides is equal to or greater than one. [Grab Sample method only]





EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 8  
OFFSITE DOSE CALCULATIONS

2. If the identity of each Radionuclide in a released mixture or solution is known, but the quantity of one or more of the radionuclides is unknown, a RQ is reached if the total quantity (in curies) of the mixture or solution released is equal to or greater than the lowest RQ of any Radionuclide in the mixture or solution. [Methods other than Grab Sample]
3. If the identity of one or more of the Radionuclides in a released mixture or solution is unknown, a RQ is reached if the total quantity (in curies) released is either equal to or greater than one curie or the lowest RQ of any known individual Radionuclide in the mixture or solution, which ever is lower. [Methods other than Grab Sample]

8.5.4 If the release exceeds the permissible RQ limits, immediately complete Appendix D accordingly.

8.5.5 Request Chemistry Supervisor to notify agencies listed in Appendix D of release.

1. Provide each with the information required in Appendix D
2. Record date/time and name of person contacted for each agency.

8.5.6 This event shall be reportable to the NRC. Ensure notifications and reports required by AP-0103.12 and O-ADM-535 are made.

8.6 Continue Monitoring and Evaluation of Releases.

NOTE: Significant wind direction changes (into new sector) or wind speed changes should be brought to the attention of the Emergency Coordinator for evaluation.

8.6.1 The Emergency Coordinator or designee shall monitor release rates and meteorological conditions.

8.6.2 If using the Manual Method (e.g.; worksheets), dose rate estimates should be updated once every hour unless:

1. Monitor reading increases by two or more times
2. Stability class changes by one or more classes.

Then dose calculations should be re-evaluated.

8.6.3 If using the computerized version, dose calculations forecasts (to obtain projected dose PARs) should be performed every 30 or 15 minutes, depending on the selected Advection Step.

8.6.4 This continuance will stay in effect until the Emergency Coordinator approves otherwise.

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 9  
OFFSITE DOSE CALCULATIONS

ATTACHMENT 1  
 (Page 1 of 1)  
GRAB SAMPLE DATA WORKSHEET

1. DATE: \_\_\_\_\_ and Time \_\_\_\_\_ of Data
2. For the affected/sampled pathways, enter the Gross Noble Gas and Iodine-131 Deq, in  $\mu\text{Ci/cc}$ , into the table below.
  - a. If Iodine results are not available, then Iodine = Noble Gas ( $\mu\text{Ci/cc}$ ) times the Iodine release rate factor, found on chart below.
3. For plant vent and steam lines (if affected), determine pathway flow in cc/sec.
  - a. For Plant Vent: use Plant Vent Sping channel 10 (cfm) times 472 to get cc/sec. If Plant Vent Sping ch. 10 data is not available, use Plant Vent Fan Configuration Table on the Default Data Table, Table 4.
  - b. For Main Steam Lines:
    - i) Atmospheric Dump Valve =  $4.0 \text{ E } 4 \text{ cc/sec}$
    - ii) Each S/G safety relief valve =  $1.1 \text{ E } 5 \text{ cc/sec}$
    - iii) Each AFW pump =  $3.4 \text{ E } 3 \text{ cc/sec}$
    - iv) If time and data permits, average the flow as shown below table otherwise assume constant flow rate

4. Calculate Release Rates:

Pathway	Type	Release Rate, Ci/sec				
		$\mu\text{Ci/cc} \times \text{Flow cc/sec} \times \mu\text{Ci to Ci} =$	Noble Gas		Iodine	
Plant Vent	Noble Gas			$1 \text{ E } -6$	//////////	
	Iodines				//////////	
Main Steam Lines	Noble Gas			$1 \text{ E } -6$	//////////	
	Iodines				//////////	
Cond Air Ejector	Noble Gas		$1.42 \text{ E } 4$	$1 \text{ E } -6$	//////////	
	Iodines				//////////	
U-3 Fuel Pool Vent	Noble Gas		$9.43 \text{ E } 6$	$1 \text{ E } -6$	//////////	
	Iodines				//////////	

Total the Noble Gas and Iodine release rates, transfer the totals to the Dose Calculation Worksheet, Line 2A Attachment 6

--	--

Iodine Release Rate Factors
LOCA and Iodine Removal System is in use: 0.011, not in use 0.063
Fuel Handling: 0.001
S/G Tube Rupture: 0.004
Gas Decay Tank or VCT: $1 \text{ E } -6$

Main Steam Line Flow Averaging Method
Pathway x Amount of OPEN time, sec or min cc/sec Averaging Period: 1800 sec or 30 min
_____ cc/sec x _____ = _____ cc/sec

ATTACHMENT 2  
 (Page 1 of 1)  
EFFLUENT MONITOR DATA WORKSHEET

1. DATE: \_\_\_\_\_ and Time \_\_\_\_\_ of Data
2. For the affected pathways, enter the monitor readings in the table below:
  - a. SPING-4 reading preferred over R-14, R-15.
  - b. If using R-14, R-15 - estimate average of 4 chart points over prior 15 minutes.
  - c. If using SPING-4, DAM-1, use indicated reading (Already averaged)
3. For Plant Vent and Steam Lines (if affected), determine pathway flow in cc/sec.
  - a. For Plant Vent: use Plant Vent Sping channel 10 (cpm) times 472 to get cc/sec. If Plant Vent Sping ch. 10 data is not available, use Plant Vent Fan Configuration Table on the Default Data Table, Table 4.
  - b. For Main Steam Lines:
    - i) Atmospheric Dump Valve =  $4.0 \times 10^4$  cc/sec
    - ii) Each S/G safety relief valve =  $1.1 \times 10^5$  cc/sec
    - iii) Each AFW pump =  $3.4 \times 10^3$  cc/sec
    - iv) If time and data permits, average the flow as shown below table otherwise assume constant flow rate
4. Enter the Iodine Release Rate Factor (IRF) in to the table below, Factors listed on chart below.
5. Calculate Release Rates:

Pathway	Noble Gas				Iodine			
	Monitor Reading	x Cal	x Flow cc/sec	x $\mu\text{Ci to Ci}$	= Rel. Rate	x IRF	= Rel. Rate	
Plant Vent	R-14		$5 \times 10^{-9}$		$1 \times 10^{-6}$			
	SPING		1.0		$1 \times 10^{-6}$			
Main Steam	DAM-1		1.0		$1 \times 10^{-6}$			
Cond Air Ejector	R-15		$2.47 \times 10^{-8}$	$1.42 \times 10^4$	$1 \times 10^{-6}$			
	SPING		1.0	$1.42 \times 10^4$	$1 \times 10^{-6}$			
#3 SFP Vent	SPING		1.0	$9.43 \times 10^6$	$1 \times 10^{-6}$			

6. Total the Noble Gas and Iodine Release Rates, \_\_\_\_\_ Ci/sec \_\_\_\_\_ Ci/sec  
 Transfer the Totals to the Dose Calculation Worksheet, Line 2.a., Attachment 6.

Iodine Release Rate Factors
LOCA and Iodine Removal System is in use: 0.011, not in use 0.063
Fuel Handling: 0.001
S/G Tube Rupture: 0.004
Gas Decay Tank or VCT: $1 \times 10^{-6}$

Main Steam Line Flow Averaging Method
Pathway x Amount of OPEN time, sec or min cc/sec Averaging Period: 1800 sec or 30 min
_____ cc/sec x _____ = _____ cc/sec

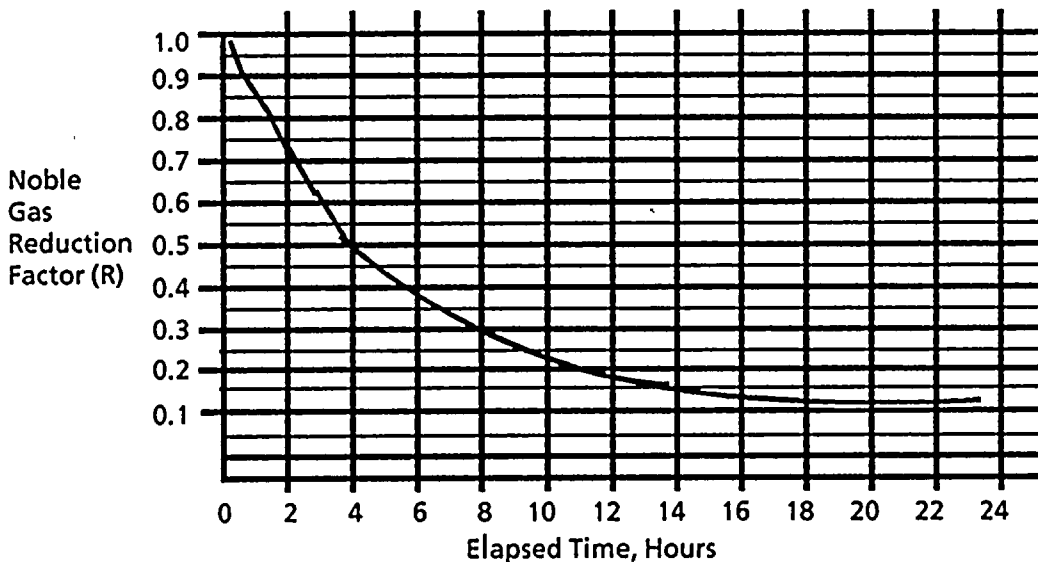
ATTACHMENT 3  
 (Page 1 of 1)

CONTAINMENT HIGH RANGE RADIATION MONITOR (CHRRM) DATA WORKSHEET

1. CHRRM Reading \_\_\_\_\_ R/hr at Date \_\_\_\_\_ Time \_\_\_\_\_
2. Elapsed Time: \_\_\_\_\_ hours between Reactor Trip and CHRRM Reading
3. Using the Elapsed time, select the Conversion Factor (CF) for use in Step 4.

Elapsed Time, Hr	Conversion Factor	Elapsed Time, Hr	Conversion Factor
ET = 0	1.6 E-6	2.0 < ET ≤ 4.0	9.0 E-6
0 < ET ≤ 0.5	2.2 E-6	4.0 < ET ≤ 8.0	1.8 E-5
.5 < ET ≤ 1.0	3.2 E-6	8.0 < ET	4.8 E-5
1.0 < ET ≤ 2.0	5.0 E-6		

4. CHRRM \_\_\_\_\_ R/hr X CF \_\_\_\_\_ = \_\_\_\_\_ (CFA) for use in Step 7 A and B.
5. Determine Reduction Factor (R), for Noble Gases from Graph; R= \_\_\_\_\_, for use in Step 7.a.



NOTE: Use the value of R corresponding to the beginning of the calculation period. For example: when calculating doses for one period from 1 to 2 hours a value of R = 0.88 should be used.

6. Iodine Conversion Value (circle value used); for use in Step 7.b.

Iodine Removal System      In Use      ICV = 0.11  
    Not in Use      ICV = 0.63

7. Total Release Rates:

- a. Noble Gases:

CFA \_\_\_\_\_ X 10.2 X (R) \_\_\_\_\_ = \_\_\_\_\_ Ci/sec

- b. Iodines:

CFA \_\_\_\_\_ X (ICV) \_\_\_\_\_ = \_\_\_\_\_ Ci/sec

8. Transfer the Noble Gas and Iodine Release rates to the Dose Calculation Worksheet, Line 2.b., Table 6

ATTACHMENT 4  
 (Page 1 of 1)  
DEFAULT VALUES FOR RADIOACTIVE RELEASES

A. Default Radioactivity Release Rate Values

<u>Accident Type</u>	<u>Default Value (Curies/Sec)</u>	
Loss of Coolant	0-2 hours after reactor trip	
(if effluent and containment high range monitors are not functional)	<u>Noble gases</u>	<u>Iodine</u>
	10.2	0.11
	2-8 hours after reactor trip	
	<u>Noble gases</u>	<u>Iodine</u>
	5.4	0.06
	more than 8 hours after reactor trip	
	<u>Noble gases</u>	<u>Iodine</u>
	1.6	0.02
Steam Generator Tube Rupture	Use this value until the affected steam generator is isolated	
	<u>Noble gases</u>	<u>Iodine</u>
	4.2	.0037
Fuel Handling	Use this value for 15 minute release duration only	
	<u>Noble Gases</u>	<u>Iodine</u>
	17.0 x number of damaged fuel bundles	0.0047 x number of damaged fuel bundles

B. Default Weather Values

WIND SPEED  
 Stability Class  
 Seabreeze impact

DAY	NIGHT
5 MPH	3 MPH
D	F
NO	NO

Wind Direction - based on observation or other suitable method of estimation.

C. Default Plant Vent Flow Values

PLANT VENT FAN CONFIGURATION TABLE					
CONTAINMENT PURGE	AUXILIARY BUILDING	SPENT FUEL PIT	RADWASTE BUILDING	LAUNDRY SYSTEM	PLANT VENT FLOW
Exhaust	Exhaust	Exhaust	Exhaust	Exhaust	cc/sec
0	0	1	2	1	$1.45 \times 10^7$
0	1	1	2	1	$3.82 \times 10^7$
0	2	1	2	1	$4.31 \times 10^7$
1	1	1	2	1	$4.74 \times 10^7$
1	2	1	2	1	$5.07 \times 10^7$
2	1	1	2	1	$5.66 \times 10^7$
2	2	1	2	1	$5.99 \times 10^7$

NOTE: This table should only be used if the plant vent SPING flow channel is out of service.



ATTACHMENT 5  
 (Page 1 OF 1)  
PLANT MET TOWER DATA WORKSHEET

1. Date \_\_\_\_\_ and Time \_\_\_\_\_ of observations.

2. Copy observations onto Table:

NOTE: Meteorological data can be obtained by depressing the purple "RAD" key on ERDADS or from recorders.

Desired Data	Point Number	Source of Data		Value, Units
		Primary	Backup	
Wind Speed	1	10m Tower	So. Dade Tower	mph
Wind Direction	2	10m Tower	So. Dade Tower	degrees
Stability Class use value in next step	3	So. Dade Tower Delta-T	10m Tower Sigma-Theta	- deg R F/50m ( $\Delta T$ ) OR - degrees (Sigma theta) (Check One)
Ambient Air Temperature		ERDADS	HAFB	°F

3. Determine stability class, use point number 3 value and compare to:

If Using Delta-T $\Delta T$	If Using Sigma - Theta $St$	Stability Class
$\Delta T \leq -1.7$	$St \geq 22.5$	A
$-1.7 < \Delta T \leq -1.5$	$22.5 > St \geq 17.5$	B
$-1.5 < \Delta T \leq -1.4$	$17.5 > St \geq 12.5$	C
$-1.4 < \Delta T \leq -0.5$	$12.5 > St \geq 7.5$	D
$-0.5 < \Delta T \leq +1.4$	$7.5 > St \geq 3.8$	E
$+1.4 < \Delta T \leq +3.6$	$3.8 > St \geq 2.1$	F
$+3.6 < \Delta T$	$2.1 > St$	G

The Stability Class is: \_\_\_\_\_

4. Evaluate Seabreeze Impact

Is the (Place Y, Yes or N, No to Left of Test Condition)

\_\_\_\_ A) Stability class is A or B or C.

\_\_\_\_ B) Time of Day is 6 A.M to 7 P.M

\_\_\_\_ C) Wind is from between 20 degrees through EAST to 220 degrees.

\_\_\_\_ D) Air Temperature is greater than compare observation data to table: If temp. is not available, Answer Y

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
66	68	73	77	80	84	86	85	84	80	74	69

If any one answer is No, then impact = No, if yes impact = Y IMPACT \_\_\_\_\_

5. Copy wind speed, wind direction, stability class, and seabreeze impact to the dose calculation worksheet, Line 3, Attachment 6.

ATTACHMENT 6  
 (Page 1 OF 1)  
DOSE CALCULATION WORKSHEET

1. Date \_\_\_\_\_ and Time \_\_\_\_\_ of observations.

NOBLE GAS Ci/sec	IODINE Ci/sec

2. a. Release rates from effluent or Grab Worksheets...  
 b. Release rate from CHRRM Worksheet, if applicable.  
 c. Total release rates, enter in table below.....

3. Meteorological Data: Wind Speed \_\_\_\_\_ mph, enter in table below

Winds From \_\_\_\_\_ Stability Class \_\_\_\_\_ Seabreeze Impact \_\_\_\_\_

4. Using the dose factors for 1, 2, 5, 10 mile calculation table (Attachment 8)

- a. For the given stability class, enter the whole body and thyroid factors for the distances into the table below.  
 b. If seabreeze impact = No, then use 1 for SBF, otherwise use the Attachment 8 SBF as entry in the table below.

5. Estimate the projected duration of the release, in hours, and enter in the proj. Dur. column in the table below.

- a. If unknown, use 2 hours  
 b. For a steam generator tube rupture, consider using 0.5 hour.  
 c. For a fuel handling incident, consider using 0.25 hour.

6. a. Calculate the whole body dose rate and projected dose

Dist. Miles	NOBLE GAS Ci/sec	WHOLE BODY DF	X	SBF	÷	WIND SPEED	WHOLE BODY = REM/HR X	PROJ WHOLE BODY Dur = REM
1					÷			
2					÷			
5					÷			
10					÷			

b. Calculate the Thyroid Dose Rate and projected dose.

Dist. Miles	IODINE Ci/sec	THYROID BODY DF	X	SBF	÷	WIND SPEED	THYROID = REM/HR X	PROJ THYROID Dur = REM
1					÷			
2					÷			
5					÷			
10					÷			

Update Appendix B, cumulative dose tracking worksheet with the above information.

7. Go to the Emergency Coordinator Summary Sheet, Attachment 7, next page.





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OFFSITE DOSE CALCULATIONS

ATTACHMENT 7  
 (Page 1 OF 1)  
EMERGENCY COORDINATOR SUMMARY SHEET

1. If the release rates, and dose rates, are based on CHRRM only and there is no other evidence of a Release, then write the words "Assumed Release" on the blank line below this note.

NOTE: "STEP" Numbers 2,3, AND 4 are the same as the Section Numbers 9, 10 and 11 of State Notification Form.

2. Release Rate: \_\_\_\_\_

- a. Noble gas is "measured" if determined by grab sample or effluent monitor.  
 b. Iodine is "measured" if determined by grab sample.

NOBLE GASES		IODINES	
Default	(A) _____ curies per second	(C)	_____ curies per second
Measured	(B) _____ curies per second	(D)	_____ curies per second

3. Estimate of Projected Offsite Dose Rate:

- a. Enter the Dose Rates from Attachment 6, Step 6 Multiplied by 1000 to get mRem/hr

Distance	Thyroid (mRem/Hr)	Whole Body (mRem/Hr)
1 Mile (Site Boundary)	_____	_____
2 Miles	_____	_____
5 Miles	_____	_____
10 Miles	_____	_____

4. Meteorological Data (At 10 Meters)

- a. Use Table at Bottom of this page to determine "Sectors Affected"

A. Wind Direction (From) _____ Degrees or Compass Direction
B. Sectors Affected _____
C. Wind Speed _____ mph
D. Stability Class _____

5. Summary Disposition (PAR)

- a. Give this Summary Sheet and the Dose Calculation Worksheet to the Emergency Coordinator for use in determining PAR.

WIND FROM	SECTOR AFFECTED	WIND FROM	SECTOR AFFECTED	WIND FROM	SECTOR AFFECTED
348.5 - 11.5	HJK	123.5 - 146.5	PQR	258.5 - 281.5	DEF
11.5 - 33.5	JKL	146.5 - 168.5	QRA	281.5 - 303.5	EFG
33.5 - 56.5	KLM	168.5 - 191.5	RAB	303.5 - 326.5	FGH
56.5 - 78.5	LMN	191.5 - 213.5	ABC	326.5 - 348.5	GHJ
78.5 - 101.5	MNP	213.5 - 236.5	BCD		
101.5 - 123.5	NPQ	236.5 - 258.5	CDE		



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OFFSITE DOSE CALCULATIONS

ATTACHMENT 8  
 (Page 1 OF 1)

DOSE FACTORS FOR 1, 2, 5, 10 MILE CALCULATIONS  
 UNITS: Rem/HOUR PER Ci/Second per Mile/Hour (wind speed)

SBF: Seabreeze Factor

STABILITY CLASS A			
Distance, miles	Whole Body	Thyroid	SBF
1	1.4 E-3	5.1	6.1
2	6.8 E-4	2.6	4.5
5	3.0 E-4	1.1	2.9
10	1.5 E-4	5.6 E-1	2.0

SBF: Seabreeze Factor

STABILITY CLASS B			
Distance, miles	Whole Body	Thyroid	SBF
1	8.7 E-3	3.3 E+1	1.3
2	2.2 E-3	8.4	1.8
5	4.2 E-4	1.6	2.7
10	2.1 E-4	8.1 E-1	2.0

SBF: Seabreeze Factor

STABILITY CLASS C			
Distance, miles	Whole Body	Thyroid	SBF
1	2.2 E-2	8.4 E+1	1.0
2	6.3 E-3	2.4 E+1	1.0
5	1.2 E-3	4.5	1.2
10	3.6 E-4	1.3	1.6

STABILITY CLASS D

Distance, miles	Whole Body	Thyroid
1	6.0 E-2	2.3 E+2
2	2.3 E-2	8.4 E+1
5	6.0 E-3	2.3 E+1
10	2.2 E-3	8.1

STABILITY CLASS E

Distance, miles	Whole Body	Thyroid
1	1.1 E-1	4.2 E+2
2	4.5 E-2	1.7 E+2
5	1.4 E-2	5.1 E+1
10	5.4 E-3	2.1 E+1

STABILITY CLASS F

Distance, miles	Whole Body	Thyroid
1	2.0 E-1	7.5 E+2
2	9.0 E-2	3.3 E+2
5	3.0 E-2	1.1 E+2
10	1.3 E-2	5.1 E+1

STABILITY CLASS G

Distance, miles	Whole Body	Thyroid
1	3.3 E-1	1.3 E+3
2	1.7 E-1	6.6 E+2
5	6.6 E-2	2.5 E+2
10	3.0 E-2	1.1 E+2



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OFF-SITE DOSE CALCULATIONS

ATTACHMENT 9  
(Page 1 of 1)

DETERMINATION OF DOSE FACTORS AT A DISTANCE FOR A STABILITY CLASS

Whole Body Dose Factor =  $4.91 \text{ E}+2 \times (\text{Factor From Table Below})$

Units Rem/Hour per Ci/Second per MPH

Thyroid Dose Factor =  $1.86 \text{ E}+6 \times (\text{Factor From Table Below})$

NOTE: This table need only be used if the dose at a specific distance (i.e, 7 miles) is required by the Emergency Coordinator.

Stability Class	Distance, Miles											
	1	2	3	4	5	6	7	8	9	10	11	12
A	2.7 E-6	1.4 E-6	9.7 E-7	7.0 E-7	6.0 E-7	4.8 E-7	4.3 E-7	3.8 E-7	3.5 E-7	3.0 E-7	2.7 E-7	2.5 E-7
B	1.8 E-5	4.5 E-6	2.1 E-6	1.2 E-6	8.6 E-7	7.0 E-7	6.0 E-7	5.2 E-7	4.7 E-7	4.4 E-7	4.2 E-7	3.9 E-7
C	4.5 E-5	1.3 E-5	4.4 E-6	3.7 E-6	2.4 E-6	1.8 E-6	1.2 E-6	1.1 E-6	8.6 E-7	7.0 E-7	6.0 E-7	5.2 E-7
D	1.2 E-4	4.5 E-5	2.6 E-5	1.6 E-5	1.2 E-5	9.1 E-6	7.5 E-6	5.9 E-6	5.2 E-6	4.4 E-6	3.9 E-6	3.4 E-6
E	2.3 E-4	9.1 E-5	5.3 E-5	3.5 E-5	2.7 E-5	2.3 E-5	1.8 E-5	1.5 E-5	1.3 E-5	1.1 E-5	9.7 E-6	8.6 E-6
F	4.0 E-4	1.8 E-4	1.1 E-4	8.0 E-5	5.9 E-5	4.8 E-5	4.0 E-5	3.5 E-5	3.0 E-5	2.7 E-5	2.4 E-5	2.3 E-5
G	7.0 E-4	3.5 E-4	2.3 E-4	1.6 E-4	1.3 E-4	1.1 E-4	9.1 E-5	8.1 E-5	7.0 E-5	6.0 E-5	5.5 E-5	5.0 E-5

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APPENDIX A  
 (Page 1 of 3)  
BACKUP METEOROLOGY WORKSHEET

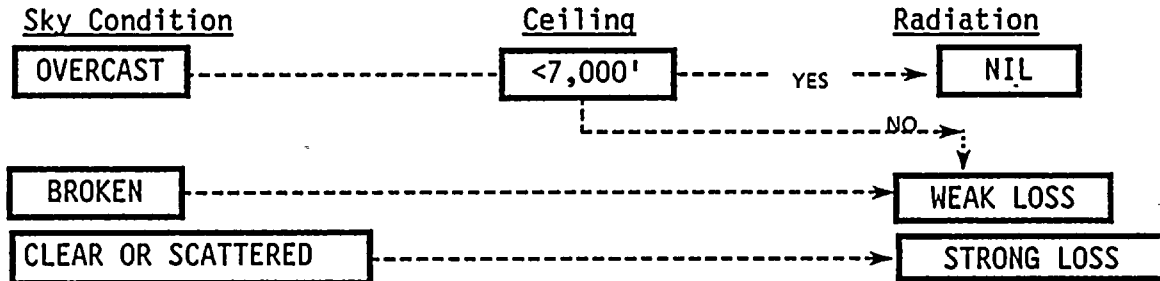
In the event data is unavailable from the meteorological strip chart recorder or ERDADS, use the following procedure:

A. GATHER DATA

1. Date: \_\_\_\_\_ Time: \_\_\_\_\_
2. Phone Homestead AFB Weather. (Use red hot line to Homestead AFB and ask to be connected to weather station). Commercial phone numbers are available in the Emergency Response Directory.
3. Copy Current weather.
4. If daytime (6 AM to 6 PM) go to Section C (next page).

B. NIGHTTIME CALCULATIONS

1. Determine Solar Radiation Characteristics:



2. Choose Stability Category (D through G)

Solar Radiation	Wind Speed (knots)								
	0,1	2,3	4,5	6	7	8,9	10	11	>11
Nil	D	D	D	D	D	D	D	D	D
Weak Loss	F	F	E	E	D	D	D	D	D
Strong Loss	G	G	F	F	E	E	E	D	D

3. Seabreeze Impact = No
4. Go to Section D





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OFFSITE DOSE CALCULATIONS

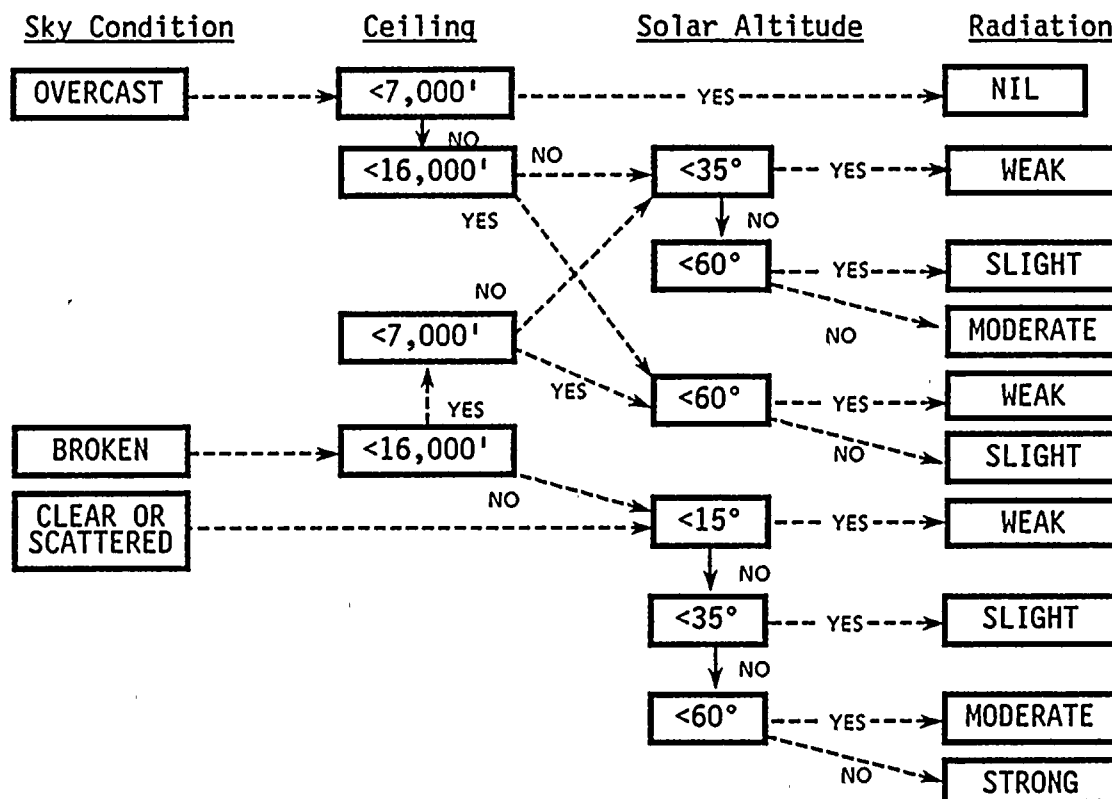
APPENDIX A  
 (Page 2 of 3)  
BACKUP METEOROLOGY WORKSHEET  
TURKEY POINT PLANT

C. DAYTIME CALCULATIONS:

1. Determine solar altitude (angle of sun above horizon) using Figure A-1

Solar Altitude = \_\_\_\_\_

2. Determine Solar Radiation Characteristics: (Place check mark next to appropriate box in radiation column)



3. Choose Stability Category (A through D), circle stability category

<u>Solar Radiation</u>	<u>Wind Speed (knots)</u>								
	0,1	2,3	4,5	6	7	8,9	10	11	>11
Strong	A	A	A	B	B	B	C	C	C
Moderate	A	B	B	B	B	C	C	C	D
Slight	B	B	C	C	C	C	D	D	D
Weak	C	C	D	D	D	D	D	D	D
Nil	D	D	D	D	D	D	D	D	D

4. If stability class is A, B, or C and wind direction is from 20 degrees through east to 220 degrees then seabreeze impact = Y, otherwise impact = N.

APPENDIX A  
(Page 3 of 3)  
BACKUP METEOROLOGY WORKSHEET  
TURKEY POINT PLANT

D. INPUT TO DOSE CALCULATION SYSTEM (Attachment 6)

1. Wind Direction (From Step A.3) \_\_\_\_\_ degrees

2. Wind Speed

1.15 x \_\_\_\_\_ (Knots) = \_\_\_\_\_ mph

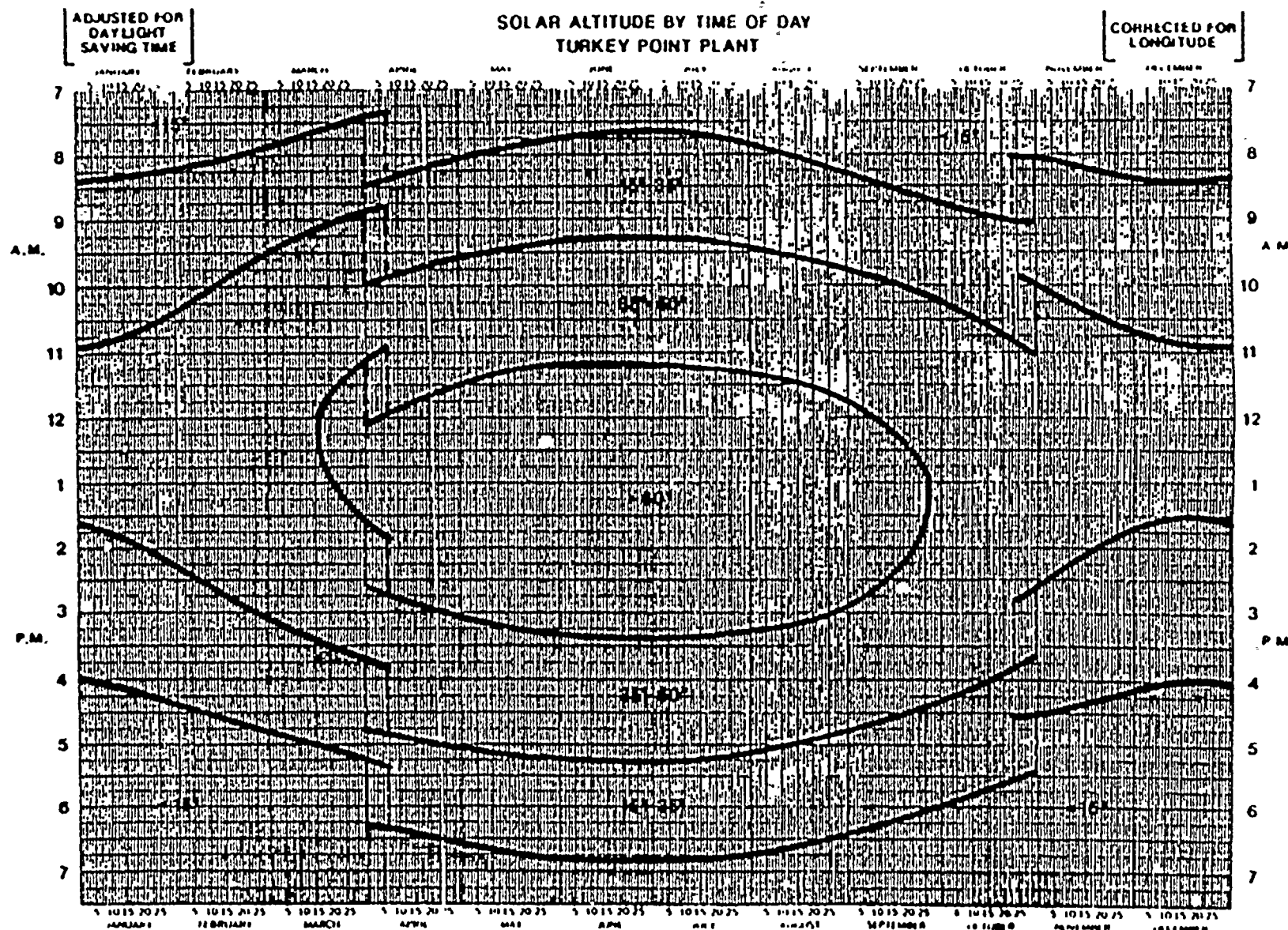
3. Atmospheric Stability Class \_\_\_\_\_

4. Seabreeze impact \_\_\_\_\_

5. Transfer this data to the Dose Calculation Worksheet, Attachment 6, Step 3.

EMERGENCY PLAN IMPLEMENTATION PROCEDURE 20126 ; PAGE  
OFF-SITE DOSE CALCULATIONS

FIGURE A-1  
 SOLAR ALTITUDE BY TIME OF DAY  
 TURKEY POINT PLANT





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OFF-SITE DOSE CALCULATIONS

APPENDIX B  
 (Page 1 of 1)  
CUMULATIVE DOSE TRACKING WORKSHEET

- NOTES: 1 This worksheet is provided in case the dose calculation computer program is not available and the emergency Response Organization requires cumulative dose tracking.
2. This activity is manpower intensive.

METHOD

1. Cumulative dose is the current dose rate multiplied by the persistence of the plume and the product added to any prior cumulative dose. For the first step, prior cumulative is zero.
- A) The dose rates estimated by this procedure are predictive; that is, when the plume gets to the distance, the dose rate will be... Therefore, plume arrival time (distance ÷ wind speed) must be considered.
- B) The persistence is how long the plume is at the distance being analysed (1 mile, 2 miles, etc.)
- C) Persistence is the period of time between dose calculations minus the plume arrival time. If this result is less than or equal to zero (i.e., the plume has not yet arrived during this dose calculation period), the persistence is zero.

WIND DIR (As Read)	DOWN- WIND DIRECTION	SECTOR	WHOLE BODY DOSE (REM)				ADULT THYROID DOSE (REM)			
			DOWNWIND DISTANCE (MILES)				DOWNWIND DISTANCE(MILES)			
			1	2	5	10	1	2	5	10
168.5-191.5	N	ALPHA								
191.5-213.5	NNE	BRAVO								
213.5-236.5	NE	CHARLIE								
236.5-258.5	ENE	DELTA								
258.5-281.5	E	ECHO								
281.5-303.5	ESE	FOXTROT								
303.5-326.5	SE	GOLF								
326.5-348.5	SSE	HOTEL								
348.5- 11.5	S	JULIET								
11.5- 33.5	SSW	KILO								
33.5- 56.5	SW	LIMA								
56.5- 78.5	WSW	MIKE								
78.5-101.5	W	NOVEMBER								
101.5-123.5	WNW	PAPA								
123.5-146.5	NW	QUEBEC								
146.5-168.5	NNW	ROMEO								



APPENDIX C  
(Page 1 of 4)

OFF-SITE DOSE CALCULATIONS - COMPUTER METHOD

1.0 Discussion

- 1.1 The computer based Class A Dose Calculation Program utilizes inputs and processes similar to the manual procedure. However, the refinements available in the computer based process allow for a wider range of input information and mathematical complexity than available in the manual method. This procedure provides guidance for using the computer based process to derive calculated off-site doses in a manner similar to that discussed for the manual calculation. Personnel having expertise in dose calculation methodology may utilize this expertise in combination with the advanced methods available through the screen driven menus to modify and refine these basic calculations.

NOTE: If the EOF and TSC are manned and operational, dose assessment personnel at these locations should coordinate their efforts in order to calculate the most accurate available off site dose assessment.

A. Computer Startup

1. To prevent data loss if a power interruption occurs, energize the uninterruptible power supply to the computer.
2. Ensure that the floppy disk drive is empty.
3. Turn on the display monitor, the printer, the computer and the print buffer if attached.
4. While computer is starting up, acquire the Class-A users manual.
5. Following system start-up, the computer will prompt the user to enter the current date. Enter the current date in the displayed format and depress the "ENTER" key.
6. Enter the current time (to the nearest whole minute) in the displayed format and depress the "ENTER" key.
7. When the computer displays the "C" drive prompt (C>), type "FPL" and depress the "ENTER" key to initiate the dose assessment program.

B. Perform Pre-Use QC Check

1. If time and manpower permit, a pre-use verification check using input data from the User's Manual should be performed prior to conducting dose calculations.
2. At the completion of the pre-use check, exit the program to the DOS level; type FPL and hit "ENTER" to restart the program.





APPENDIX C  
(Page 2 of 4)

OFF-SITE DOSE CALCULATIONS - COMPUTER METHOD

C. Conducting Calculations

1. When the plant site menu is displayed, depress the function key to select "Turkey Point Plant."
2. When the program asks, "Is this an exercise?", answer appropriately and depress the "ENTER" key.
3. When the Main Menu is displayed, select the displayed function key to start calculations.
4. When prompted by the program, depress "Y" and the "ENTER" key to re-initialize the data files.
5. Select from the screen functions displayed to edit the reactor trip times and release start times in the format shown on the screen. Depress "ENTER" after each new entry. Thirty minute advection time steps are normally used except for fuel handling accidents, for which fifteen minute advection time steps should be used.

NOTE: Once advection time is selected it should not be changed while running the program to prevent generating errors.

6. After entering the correct reactor trip and release start times, and advection time steps, depress the displayed function key to accept the data.
7. When the Run Mode Menu is displayed, depress the displayed function key to enter the Actual Calculation Mode.
8. When the Input Menu is displayed, depress the displayed function key to bring up the Meteorological Data Menu.
9. Using meteorological data gathered in accordance with this procedure, enter the data in the format shown using the displayed function keys. Depress "ENTER" after each new entry.

CAUTION: When determining the atmospheric stability class, the Class A computer program will select the most recently entered indicator (Delta-T or Sigma-Theta) of stability. Since Delta-T is the preferred indicator, ensure that Delta-T data is entered last when available.

10. When all necessary meteorological data has been entered, depress the displayed function key to accept the data and return to the Meteorological Data Menu.
11. Depress the displayed function key to accept the data and return to the Input Menu.



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OFF-SITE DOSE CALCULATIONS

APPENDIX C  
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OFF-SITE DOSE CALCULATIONS - COMPUTER METHOD

12. When the Input Menu is displayed, depress the displayed function key to bring up the Source Term Accident Information Menu.
13. When the Source Term Accident Information Menu is displayed, depress the displayed function key to accept the default accident (LOCA) or to edit this information. If editing is required, edit the information in accordance with the displayed instructions.
14. When the Source Term Release Rate Menu is displayed, gather release rate information in accordance with this procedure and enter the release rate information and the source of the information in accordance with the displayed instructions.
15. After completing input of release rate information, depress the displayed function key to accept the data return to the Input Menu.
16. If a final check of data accuracy is desired, depress the displayed function keys to review the data and to return to the Input Menu.
17. To begin calculations, depress the appropriate function key and answer "Y", "ENTER" to the screen prompt.
18. When the Output Menu is displayed, depress the displayed function key to select the printer.
19. When the Printed Report Menu is displayed, depress the displayed function keys to select the desired reports and radial receptors.

CAUTION: Ensure that the printer and buffer are on line and ready for use prior to proceeding with the printing task. If either device is not ready for use, the computer will exit the dose assessment program.

20. Depress any key to begin printing.
21. When the Output Menu is displayed, depress the displayed function key to select the Run Mode Menu.
22. When the Run Mode Menu is displayed, depress the displayed function key to select the Forecast Calculation Mode.
23. Using the displayed instructions, edit the forecast period as desired. Two hour forecast periods are normally used unless the release period is expected to be other than two hours as specified by Emergency Management personnel.
24. After accepting the forecast period, the Input Menu: Forecast Calculation mode will be displayed. Depress the displayed function keys to edit, review and summarize data as necessary.



APPENDIX C  
(Page 4 of 4)

OFF-SITE DOSE CALCULATIONS - COMPUTER METHOD

25. When all input data is acceptable, depress the displayed function key to perform calculations. Answer "Y", "ENTER" to the screen prompt.
26. When the Forecast Calculation Mode Output Menu is displayed, depress the displayed function key to select the printer.
27. When the Printed Report Menu is displayed, depress the displayed function keys to select the desired reports and radial receptors.

CAUTION: Ensure that the printer and buffer are on line and ready!

NOTE: The Emergency Coordinator should normally be provided with a print-out of actual calculated doses, forecast calculated doses and protective action recommendations. Dose calculation reports should reflect both whole body and thyroid doses at 1 mile, 2 miles, 5 miles, 7.5 miles and 10 miles (Select "ALL" and "1, 2, 5, 7.5, 10 Rd1 Rctrs" from the Printed Report Menu).

28. When the Actual, Forecast and PAR Reports have been printed, the dose calculation technician may return to the actual run mode menus to update information and repeat the dose assessment process as needed due to meteorological or release rate changes. The technician should generally provide an update to the Emergency Coordinator every thirty minutes during periods of actual or potential off-site releases.
29. For all subsequent calculations, the technician should return to the Source Term Menu and Input Displays, even if the data is not to be changed, review and accept the data in order to assure that the Noble Gas Reduction factor is reset to its proper value.

\* End of Appendix C\*

4/7/92

APPENDIX D  
(Page 1 of 2)

REPORTABLE QUANTITY (RQ) RADIOACTIVE RELEASE DATA SHEET

Brief description of the event: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Estimate of Quantity of Substance Released to environment: \_\_\_\_\_

Isotopes released; Quantity and RQ Limit:

<u>Nuclide</u>	<u>Curies</u>	<u>RQ Limit</u>	<u>Nuclide</u>	<u>Curies</u>	<u>RQ Limit</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Time and Duration of release:

Start Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Stop Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Medium released to:

Liquid: a) Discharge Canal (Lake Warren): \_\_\_\_\_

b) Ground: \_\_\_\_\_

Airborne Gaseous: a) Wind Speed: \_\_\_\_\_ MPH

b) Wind Direction (from): \_\_\_\_\_ degree

c) Downwind Sector: \_\_\_\_\_

Any known or anticipated Acute or Chronic Health Risks:

\_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ Unable to provide information

Any advice regarding medical attention necessary for exposed individual:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20126, PAGE 28  
OFF-SITE DOSE CALCULATIONSAPPENDIX D  
(Page 2 of 2)REPORTABLE QUANTITY (RQ) RADIOACTIVE RELEASE DATA SHEET

Any precautions to take as result of release:

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Names and telephone number of personnel to be contacted for further information:

Name:	Plant No.	Beeper No.
_____	_____	_____
_____	_____	_____
_____	_____	_____

NOTE: The telephone numbers listed below should be used as guide.

Notifications made to:

a. Nuclear Plant Supervisor

- 1) Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- 2) Name of person given information: \_\_\_\_\_

b. National Response Center (See ERD for associated phone numbers)

- 1) Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- 2) Name of person given information: \_\_\_\_\_

c. State Emergency Response Commission (See ERD for associated phone numbers)

- 1) Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- 2) Name of person given information: \_\_\_\_\_

d. Local Emergency Response Planning Committee (Community Emergency Coordinator)  
(See ERD for associated phone numbers)

- 1) Date/Time: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- 2) Name of person given information: \_\_\_\_\_

Completed by:

Name (Print/Initials): \_\_\_\_\_/\_\_\_\_\_  
Date/Time: \_\_\_\_\_/\_\_\_\_\_





FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING  
PROCEDURE 20129  
OCTOBER 8, 1990

1.0 Title:

EMERGENCY RADIATION TEAM RESPONSE - OFFSITE

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change Dated 10/8/90 Reviewed by Plant Nuclear Safety Committee: 90-230

and Approved by Plant Manager - Nuclear: 10/8/90

Periodic Review Due: 4/7/94

2.2 List of Effective Pages:

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
1	10/08/90	4	10/08/90	7	10/08/90
2	10/08/90	5	10/08/90	8	10/08/90
3	10/08/90	6	10/08/90	9	10/08/90
				10	10/08/90

3.0 Scope:

3.1 Purposes

To direct the response of the Emergency Radiation Team (ERT) in performing off-site monitoring in the event of a radiological emergency.

3.2 Discussion:

3.2.1 The Emergency Plans are designed to protect health and safety of the public and plant personnel, prevent damage to property, and limit the consequences of an event. In the event of a radiological emergency or incident, the ERT may be activated to cope with the emergency.

3.2.2 Four levels of emergency classification are established. In order of increasing seriousness, these are:

Definitions:

1. Unusual Event - The Unusual Event category applies to off-normal events or conditions at the Plant for which no significant degradation of the level of safety of the plant has occurred or is expected. Any release of radioactive material which has occurred or which may be expected is minor and constitutes no appreciable health hazard.

RTSs 86-1918, 86-2022, 87-2032, 88-2075, 89-1186, 89-3393, 90-1308P  
OTSC 7652

This procedure may be affected by an O.T.S.C (On The Spot Change) verify information prior to use.  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20129, PAGE 2  
EMERGENCY RADIATION TEAM RESPONSE - OFFSITE

2. Alert - This classification is represented by events which involve an actual or imminent substantial degradation of the level of safety of the plant combined with a potential for limited uncontrolled radioactivity from the plant.
3. Site Area Emergency - This classification is composed of events which involve actual or likely major failures of plant functions needed for protection of the public combined with a potential for significant uncontrolled releases of radioactivity from the plant.
4. General Emergency - This classification is composed of events which involve actual or imminent substantial core degradation and potential loss of containment integrity combined with a likelihood of significant uncontrolled releases of radioactivity from the plant.

3.2.3 Composition of the Emergency Radiation Team

The primary Radiation Team Leader is the Health Physics Supervisor. He directs the radiological surveillance performed by the Health Physics technicians under the orders of the Emergency Coordinator. The Health Physics Representative, on-site, is designated as the Interim Radiation Team Leader. The alternate leader is the Nuclear Watch Engineer. The Radiation Team Leader recommends appropriate protective actions to the Emergency Coordinator when not covered by procedure.

3.2.4 The Emergency Radiation Team members shall be dispatched by the Emergency Radiation Team leader into the affected area to perform the following duties, as required:

1. Perform radiation surveys and obtain appropriate samples for radionuclide analysis, both on-site and off-site.
2. Establish and post appropriate radiation and contamination area boundaries.
3. Determine the required protective clothing and equipment needed to enter the affected area.
4. Provide estimates to the Emergency Coordinator of the magnitude and extent of radiological hazards.
5. Monitor personnel and evaluate personnel radiation exposures.
6. Maintain proper records and logs.

3.3 Authority:

3.3.1 10 CFR 50, Appendix E



#### 4.0 Precautions and Limits:

- 4.1 All ERT members should wear personal dosimetry whether on-site or off-site. TLD's and self-reading dosimeters are available at the Florida City Substation.
- 4.2 One member of each monitoring team shall have had training in emergency environmental monitoring procedures.
- 4.3 Initially, airborne activity samples to determine radioiodine concentrations shall be collected using silver zeolite cartridges. During subsequent sampling, charcoal filters may be used. Additional silver zeolite and charcoal cartridges are available at the Florida City Substation.
- 4.4 Off-site monitoring teams should assemble at the Florida City Substation or as directed by the Off-site Team Leader while awaiting future assignments.
- 4.5 The dose limits used for off-site monitoring are 5 rem whole body and 25 rem thyroid.
- 4.6 Thyroid and whole body doses for field monitoring teams should be assessed by field teams and verified and recorded by Health Physics personnel in the TSC.

#### 5.0 Responsibilities:

- 5.1 It is the responsibility of the Emergency Radiation Team Leader to:
  - 5.1.1 Notify and assemble the ERT when notified of an emergency condition.
  - 5.1.2 Report to the TSC and supervise all phases of the Emergency Radiation Team in its response to radiological emergencies and incidents.
  - 5.1.3 Verify, through regular inspections, that all emergency equipment is in good condition and operable (See 11550.90/HP-90, Inventory of Health Physics Emergency Equipment).
  - 5.1.4 Ensure training is conducted annually with the Emergency Radiation Team members to ensure that they are properly trained for their Emergency Radiation Team position.
- 5.2 It is the responsibility of each Emergency Radiation Team member to:
  - 5.2.1 Be thoroughly familiar with the contents of this procedure and the location of all emergency equipment.
  - 5.2.2 Report to the assigned assembly area in a timely manner when notified by the ERT Leader.



6.0 References:

- 6.1 Turkey Point Plant Radiological Emergency Plan and Procedures
- 6.2 O-ADM-600, Health Physics Manual
- 6.3 O-HPS-020, Radiation Surveys
- 6.4 O-HPS-021, Surface Contamination Surveys
- 6.5 O-HPS-022, Airborne Contamination Surveys
- 6.6 O-HPA-070, Decontamination of Personnel
- 6.7 O-HPT-016.8, Calibration and Operation of the Eberline Smart Portable Model ESP-2
- 6.8 OP-11550.71, Decontamination of Tools, Equipment, and Areas
- 6.9 AP-11550.90, Inventory of Health Physics Emergency Equipment
- 6.10 EPIP-20125, On-site Emergency Organization

7.0 Records and Notification:

- 7.1 All significant information, events, and actions taken during an emergency period shall be reported to the Emergency Coordinator.
- 7.2 Each monitoring team should record results of all surveys and actions in a monitoring log book.





10/8/90

## 8.0 Instructions:

- 8.1 When notified by the Emergency Coordinator that a radiological emergency exists and that the Emergency Plan is initiated, the Emergency Radiation Team shall organize in accordance with EPIP-20125, On-site Emergency Organization.
- 8.2 Unless directed otherwise by the Emergency Coordinator, the Emergency Radiation Team shall perform the following:
  - 8.2.1 Upon declaration of an Alert, Site or General Emergency the ERT shall assemble in the OSC. The interim ERT Leader should open all emergency supply lockers and check all equipment for operability. Survey meters should be source checked prior to use.
  - 8.2.2 The interim ERT Leader should establish communications with the TSC (if operable) or with the Emergency Coordinator in the Control Room.
  - 8.2.3 The ERT Leader shall assemble at the TSC and establish communications with the ERT and the Emergency Coordinator.
- 8.3 Survey kits for Emergency Radiation Monitoring Teams shall be available at the OSC and at the off-site Assembly Area (Florida City Substation). These survey kits are supplied and inventoried according to Operating Procedure 11550.90, Inventory of Emergency Equipment.

## 8.4 Locating the Plume

- 8.4.1 The ERT Leader shall dispatch the Off-Site Survey Teams as needed from the assembly area in the OSC or from the Site Assembly Area.
  1. There is an Off Site Emergency Kit in the OSC to allow one team to be dispatched directly from the plant site. Any other off-site teams will report to the Florida City Sub Station to pick up additional emergency equipment.
  2. The teams shall be briefed on the extent of the off-site release (or potential of release), the wind direction and other specifics as available.
  3. The off-site teams shall inventory the emergency kits before use and verify that they are equipped in accordance with the inventory lists.
  4. The ERT Leader, or his designee, shall use the wind speed/direction and the plant release data to determine the travel routes into the affected areas for the off-site survey teams.

5. The FPL access roads have locked gates that may block the survey team from locating the plume. The survey teams leaving the plant site shall check out the gate keys from the south guard house.
  6. The ERT Leader, or his designee, should communicate with the Off-Site Survey Teams using the emergency team portable radios. The off-site team will normally use channel No. 2 for all transmissions.
- 8.4.2 If desired, the Radiation Team Leader may request that FPL vehicles be made available for survey activities. Emergency Management Maintenance shall make necessary arrangements.
  - 8.4.3 The survey teams should try to locate the release plume by placing a highly sensitive survey meter outside the window of the emergency vehicle and continuously monitoring the meter response. An open window survey probe (Beta-Gamma) may be used to aid in locating the lower activity levels near the edges of the plume.
  - 8.4.4 The ERT Leader, or his designee, should be notified whenever any increase above the background radiation levels is noted by the survey team. The survey team should report their location and the Gamma Radiation levels at the edge of the plume.
  - 8.4.5 The survey team shall record the time of entry and exit from the plume. The stay time will be used with the air activity to calculate the dose to the thyroid from exposure to radioiodine. The thyroid dose limit for any individual is 25 rem. (See Section 8.4.10).
  - 8.4.6 The ERT Leader, or his designee, will instruct the survey team to proceed into the plume to locate the center-line of the release. The vehicle windows should be rolled up when entering the plume.
  - 8.4.7 The center-line of the plume will be located by finding the area with the highest gamma exposure rate. When the survey team has determined the location of the centerline they shall perform the following actions:
    1. Don respiratory protection equipment and then exit vehicle. The survey team should remove the Air Sampler and ION Chamber (or other Beta-Gamma Survey Meter) from the vehicle and then shut the vehicle doors to reduce contamination inside.

2. Initiate air samples. The normal sample volume shall be  $1 \times 10^5$  ml. If the gamma exposure rate is greater than 1R/HR, the sample volume should be reduced to  $1 \times 10^4$  ml to allow more rapid sampling and reduce the exposure to the survey team. (See Section 8.5.1 - 8.5.4 for details on air sampling).
3. Perform open and closed window surveys of affected area to determine the beta and gamma dose rates. Surveys should be taken at different height gradients to determine if source term is ground deposition or airborne plume. (Ground deposition readings should be taken within 3 inches of the ground.)
4. Notify the ERT Leader, or his designee, of the center line location and the dose rate results.

NOTE: It may be necessary to exit the plume before using the radio if communication cannot be performed while the survey team is wearing respiratory equipment.

- 8.4.8 The survey team should exit the affected area as soon as the air sample is obtained. They should notify the ERT Leader, or his designee, when exiting the plume and proceed to an area, outside the plume, as directed by the ERT Leader.
- 8.4.9 The air samples shall be analyzed by the survey team to determine the concentration of particulate and radioiodine activity. (See instructions for analyzing air samples in section 8.6.)
- 8.4.10 The results of the air sample analysis will be relayed to the ERT Leader, or his designee, by the Off-Site Survey Team. The survey team will calculate their thyroid dose and report the dose to the ERT Leader, or his designee. The thyroid dose can be obtained by using the Thyroid Exposure Graph in the emergency kits and calculating the stay time in the plume and the airborne I-131 concentration.

8.5 Instructions for Air Sampling:

- 8.5.1 Off-site air samples will usually be taken with a 12 volt DC air sampler. The sampler has two battery leads that will attach to the battery post in the emergency vehicle. (Verify that the correct polarity is used when connecting the battery leads. The red lead is positive and the black lead is negative).
- 8.5.2 The air sample heads shall be loaded with a silver zeolite cartridge down stream of a standard particulate filter. Verify that the arrow on the cartridge is pointing in the direction of the sample flow.
- 8.5.3 The sample volume will normally be  $1 \times 10^5$  ml. If the gamma exposure rate in the center-line of the plume is greater than 1 R/HR, the sample volume should be reduced to  $1 \times 10^4$  ml to allow for more rapid sampling and thus reduce the exposure to the survey team. (Lower volume samples may also be required by the ERT Leader if high levels of activity are projected). The sample time is determined by reading out the flow meter indicator attached to the air sampler and calculating the time required to obtain the desired sample volume. A flow chart is provided with the emergency kits to aid in calculating the sample time.
- 8.5.4 After the desired sample volume is obtained, the filter and iodine cartridge shall be removed from the sample head and placed in separate whirlpacks. The samples should be labeled with location, volume, sample date and time. (Care should be taken to avoid cross contamination of air sample filter and cartridge.)



8.6 Instructions for Analysis of Air Samples:

- 8.6.1 The air samples shall be analyzed in a low background area outside of the plume. The area should be surveyed to verify that the background levels will not affect the sample analysis.
- 8.6.2 The Eberline ESP-2 counting system will be used by the emergency team to analyze the samples for radioactive iodine (I-131).
- 8.6.3 The Eberline ESP-2 counting system consists of: a calibrated ESP-2 meter, a cable (MHV-MHV), a shielded SPA-9 scintillation detector (or equivalent) and a BA-133 check source.
- 8.6.4 Background and source check
  1. Place the probe and shield on a level, stable surface
  2. Press the reset button and obtain a one minute background count. Reload the data.
  3. Place the BA-133 check source's active surface in contact with the end of the detector probe and press reset to obtain a one minute source count. Record the data.
  4. Determine the net count rate for the source by subtracting the background CPM from the source CPM. The source count rate should fall within 20 percent of the source value indicated on the instrument.

8.6.5 Sample Counting

1. Press the reset button and obtain a one minute background count. Record the results.

CAUTION: Take appropriate steps to prevent cross-contamination of probe and instrument.

2. Place the silver zeolite cartridge in contact with the end of the detector probe with the flow arrow on the cartridge pointing away from the probe. Press the reset button and obtain a one minute sample count with the probe directly over the cartridge. Record the data.
3. Determine the net count rate on the sample by subtracting the background CPM from the sample CPM.
4. Use completed form HP-7V.5 provided with the emergency kit to obtain a value for the iodine concentration in mCi/cc as a function of net counts (in one minute).



- 8.6.6 Particulate activity analysis will be performed on the particulate filter alone. The filter should be removed from the whirlpack and placed approximately 1/2" below the window of a HP-210 Beta-Gamma Probe connected to a count rate meter. The particulate activity is calculated using the following formula:

$$\text{Particulate Air Activity} = \frac{(\text{SAMPLE NET CPM}) \times (4.5 \times 10^{-7})}{(\text{VOLUME ml} \times (0.1) \times (0.9))}$$

If high sample activity causes the HP-210 probe and count rate meter to exceed the highest scale (Off Scale Reading), survey the particulate filter with a Gamma Dose Exposure Meter and report the results to the ERT Leader, or his designee.

- 8.7 All survey data obtained by the Off-Site Survey Teams should be recorded in the Survey Team Log Book in the Emergency Kit.
- 8.8 The field survey results should be recorded on the status board in the TSC and compared to the projected results that were based on release data.
- 8.9 Further analysis of the off-site air samples may be performed at the following facilities:

The HP Counting Laboratory (On Site)  
The Radiochemistry Laboratory (On Site)

The samples should be counted in accordance with the standard operating procedure for that particular counting facility.

- 8.10 The dose limits for plant personnel on the Emergency Off-Site Team are 5 rem - whole body and 25 rem to the thyroid. Estimates of exposure will be calculated by the field teams and communicated to the ERT Leader, or his designee.
- 8.11 When the Emergency Operations Facility (EOF) is established and off-site survey operations are ready to be coordinated with the State of Florida Department of Health and Rehabilitative Services, the direction of the FPL Field Monitoring Teams should be carried out in conjunction with the Corporate Health Physics Group.





FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING PROCEDURE 20130  
OCTOBER 8, 1990

1.0 Title:

EMERGENCY RADIATION TEAM RESPONSE - ONSITE

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change Dated 10/8/90 Reviewed by Plant Nuclear Safety Committee: 90-230

and Approved by Plant Manager - Nuclear: 10/8/90

Periodic Review Due: 4/7/94

2.2 List of Effective Pages:

Page	Date	Page	Date	Page	Date
1	10/08/90	4	10/08/90	7	10/08/90
2	10/08/90	5	10/08/90	8	10/08/90
3	10/08/90	6	10/08/90	9	10/08/90

3.0 Scope:

3.1 Purpose:

To direct the response of the Emergency Radiation Team (ERT) in performing on-site monitoring in the event of a radiological emergency.

3.2 Discussion:

3.2.1 The Emergency Plans are designed to protect health and safety of the public and plant personnel, prevent damage to property, and limit the consequences of an event. In the event of a radiological emergency or incident, the ERT may be activated to cope with the emergency.

3.2.2 Four levels of emergency classification are established. In order of increasing seriousness, these are:

Definitions:

1. Unusual Event - The Unusual Event category applies to off-normal events or conditions at the Plant for which no significant degradation of the level of safety of the plant has occurred or is expected. Any release of radioactive material which has occurred or which may be expected is minor and constitutes no appreciable health hazard.

RTSs 86-1919, 86-1200, 86-2021, 87-2031, 87-1446, 89-3392, 90-1309P  
OTSC 7651

/dvdrs

This procedure may be affected by an OTSC (On The Spot Change) verify information prior to use  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_



EMERGENCY PLAN IMPLEMENTING PROCEDURE 20130, PAGE 2  
EMERGENCY RADIATION TEAM RESPONSE - ONSITE

2. Alert - This classification is represented by events which involve an actual or imminent substantial degradation of the level of safety of the plant combined with a potential for limited uncontrolled radioactivity from the plant.
3. Site Area Emergency - This classification is composed of events which involve actual or likely major failures of plant functions needed for protection of the public combined with a potential for significant uncontrolled releases of radioactivity from the plant.
4. General Emergency - This classification is composed of events which involve actual or imminent substantial core degradation and potential loss of containment integrity combined with a likelihood of significant uncontrolled releases of radioactivity from the plant.

### 3.2.3 Composition of the Emergency Radiation Team

The primary Radiation Team Leader is the Health Physics Supervisor. He directs the radiological surveillance performed by the Health Physics technicians under the orders of the Emergency Coordinator. The Health Physics Representative, on-site, is designated as the Interim Radiation Team Leader. The alternate leader is the Nuclear Watch Engineer. The Radiation Team Leader recommends appropriate protective actions to the Emergency Coordinator when not covered by procedure.

### 3.2.4 The Emergency Radiation Team members shall be dispatched by the Emergency Radiation Team leader into the affected area to perform the following duties, as required:

1. Perform radiation surveys and obtain appropriate samples for radionuclide analysis, both on-site and off-site.
2. Establish and post appropriate radiation and contamination area boundaries.
3. Determine the required protective clothing and equipment needed to enter the affected area.
4. Provide estimates to the Emergency Coordinator of the magnitude and extent of radiological hazards.
5. Monitor personnel and evaluate personnel radiation exposures.
6. Maintain proper records and logs.

### 3.3 Authority:

#### 3.3.1 10 CFR 50, Appendix E

EMERGENCY PLAN IMPLEMENTING PROCEDURE 20130, PAGE 3  
EMERGENCY RADIATION TEAM RESPONSE - ONSITE

4.0 Precautions and Limits:

- 4.1 Interim (shift) Emergency Radiation Team members shall consider themselves relieved only upon the specific instructions of a recognized supervisor or the primary ERT leader.
- 4.2 For emergencies inside the Radiation Controlled Area, the initial entry of the Emergency Team and all subsequent entries prior to affected areas being properly marked, shall take place under the supervision of the ERT leader.
- 4.3 ERT members who are involved in fire fighting activities in the Radiation Controlled Area or who enter airborne contaminated areas of unknown concentrations shall wear a self-contained breathing apparatus.
- 4.4 All ERT members should wear personal dosimetry whether on-site or off-site. TLDs and self-reading dosimeters are available at the Florida City Substation.
- 4.5 The following guidelines for emergency radiation exposure of personnel shall be followed during the re-entry operations:

- 4.5.1 Under emergency conditions not requiring action to prevent serious injury or a catastrophic incident, personnel exposure should not exceed 5 rem to the whole body, or 25 Rem to the thyroid.

NOTE: This exposure guideline applies to emergency responders in the TSC and OSC. The Radiation Team Leader is responsible for recommending evacuation of Emergency Response Facilities to the Emergency Coordinator when radiological conditions result in the exposure referenced in 4.5.1.

- 4.5.2 A planned emergency exposure to prevent destruction of equipment which could result in serious injury or to assess a potentially critical situation should not exceed 12 rem to the whole body or 60 rem to the thyroid.
- 4.5.3 When immediate action is necessary to prevent serious injury, dose to the whole body should not exceed 25 rem and dose to the thyroid should not exceed 125 rem. Events in this category include removal of incapacitated personnel from high radiation areas, providing emergency medical treatment including first aid and decontamination of individuals.
- 4.5.4 For lifesaving actions, an individual may receive a whole body dose of 75 rem. "No specific upper limit is given for thyroid exposure since in the extreme case complete thyroid loss might be an acceptable penalty for a life saved. However, this should not be necessary if respirators and/or thyroid protection for rescue personnel are available as the result of adequate planning."



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- 4.6 On-site monitoring teams should assemble at the OSC while awaiting future assignments.

NOTE: If dose rates and/or airborne activity levels render the OSC uninhabitable, an alternate assembly area shall be established by the Emergency Coordinator.

- 4.7 All Radiation Surveys shall be performed in accordance with Procedure O-HPS-020, Radiation Surveys. All contamination surveys shall be performed in accordance with Procedure O-HPS-021, Surface Contamination Surveys. All airborne surveys shall be performed in accordance with Procedure O-HPS-022 Airborne Contamination Surveys except when otherwise directed by this procedure (HP-91).
- 4.8 Frequent surveys of habitable areas used during an emergency situation (Control Room, OSC, TSC, Guard Houses, etc.) should be performed.
- 4.9 Dosimetry for off-site support groups (fire/rescue, NRC, etc) should be available at the OSC. This dosimetry should be issued when personnel enter the plant.
- 4.10 Off-site support groups should be monitored by the Emergency Radiation Team when leaving the site. If the background radiation levels prohibit frisking, on-site personnel and equipment should be monitored at the Florida City Substation.
- 4.11 In the event that plant area radiation monitors are not functional it may be necessary to take a radiation survey on contact with the containment building. The reading should be taken at the equipment hatch (if accessible).

5.0 Responsibilities:

- 5.1 It is the responsibility of the Emergency Radiation Team Leader to:

- 5.1.1 Notify and assemble the ERT when notified of an emergency condition.
- 5.1.2 Report to the TSC and supervise all phases of the Emergency Radiation Team in its response to radiological emergencies and incidents.
- 5.1.3 Verify, through regular inspections, that all emergency equipment is in good condition and operable (See 11550.90/HP-90, Inventory of Health Physics Emergency Equipment).
- 5.1.4 Ensure training is conducted annually, with the Emergency Radiation Team members to ensure that they are properly trained for their Emergency Radiation Team position. Training should coincide with the annual emergency drill.

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EMERGENCY RADIATION TEAM RESPONSE - ONSITE

5.2 It is the responsibility of each Emergency Radiation Team member to:

5.2.1 Be thoroughly familiar with the contents of this procedure and the location of all emergency equipment.

5.2.2 Report to the assigned assembly area when notified by the ERT Leader in a timely manner.

6.0 References/Commitment Documents

6.1 References

6.1.1 Turkey Point Plant Emergency Plan and Procedures

6.1.2 O-ADM-600, Health Physics Manual

6.1.3 O-HPS-020, Radiation Surveys

6.1.4 O-HPS-021, Surface Contamination Surveys

6.1.5 O-HPS-022, Airborne Contamination Surveys

6.1.6 O-HPT-016.8, Calibration and Operation of the Eberline Smart Portable Model ESP-2

6.1.7 OP-11550.70, Decontamination of Personnel

6.1.8 OP-11550.71, Decontamination of Tools, Equipment, and Areas

6.2 Commitment Documents

6.2.1 None

7.0 Records and Notification:

7.1 All significant information, events, and actions taken during an emergency period shall be reported to the Emergency Coordinator.

7.2 A written log of all significant events should be kept in the OSC.

7.3 HP-2 - Area Access Log

7.4 HP-44/40 - Blank Survey Forms

7.5 HP-61 - Air Sample Calculation Sheet

7.6 HP-94 - Pers/Respirator/MPC Accountability Log Sheet





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EMERGENCY RADIATION TEAM RESPONSE - ONSITE

8.0 Instructions:

8.1 When notified by the Emergency Coordinator that a radiological emergency exists and that the Emergency Plan is initiated, the Emergency Radiation Team shall organize as follows:

- 8.1.1 Primary Leader: Health Physics Supervisor
- 8.1.2 Alternate: Health Physics Operations Supervisor
- 8.1.3 Team Members: All Health Physics Personnel
- 8.1.4 Interim Leader: On-site Health Physics representative
- 8.1.5 Alternate: Nuclear Watch Engineer

8.2 Unless directed otherwise by the Emergency Coordinator, the Emergency Radiation Team shall assemble as follows:

8.2.1 Upon determination of an Alert, Site or General Emergency the ERT shall assemble in the OSC (normally the Maintenance Cafeteria area). The interim ERT leader should open all emergency supply lockers at this time and check all equipment for operability. Survey meters should be source checked prior to use.

8.2.2 At this time the interim ERT leader should establish communications with the TSC (if operable) or with the Emergency Coordinator in the Control Room.

8.2.3 The ERT leader shall assemble at the TSC and establish communications with the ERT and the Emergency Coordinator.

8.3 In the event of a radioactive release to the environment, Off-Site monitoring teams should be dispatched to the Florida City Substation to pick up survey equipment. Upon assembly at the Florida City Substation the Off-Site monitoring teams shall operate under the guidance of HP-92 - Emergency Radiation Team Response - Off-Site.

8.4 Radiological Monitoring shall be performed in the TSC and OSC during a release to the environment. The ERT Leader shall be kept informed of the radiological status in the TSC and OSC.

NOTE: Smoking, drinking and eating activities may be restricted pending survey results.

8.5 In the event of a site evacuation, the following guidelines should be considered:

8.5.1 One or more members of the ERT should be sent immediately to the Site Assembly Area (Florida City Substation) to monitor evacuees.



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EMERGENCY RADIATION TEAM RESPONSE - ONSITE

- 8.5.2 One or more members of the ERT should be sent to provide Health Physics Coverage at each of the following occupied areas: TSC, OSC, Control Room.
- 8.6 All casualty control and emergency response teams shall be located in the OSC. These teams should be directed by the Emergency Coordinator or his designee who is located in the TSC. Upon designation of a Site Emergency, all emergency response teams leaving the OSC should be accompanied by an ERT member, unless otherwise allowed by the ERT Leader.
  - 8.6.1 Instructions as to dose rates, air activity and planned travel routes should be provided by the ERT Leader or his designee in the TSC.
  - 8.6.2 All personnel leaving the OSC and entering into the affected area should be equipped with the proper dosimetry and logged in and out on Form HP-2.
  - 8.6.3 All personnel entering areas where airborne activity is greater than 25 percent of MPC should be equipped with proper respiratory protection and names should be recorded on a Form HP-94.
- 8.7 All survey information, air activity information and Health Physics related plant data should be displayed on a status board in the TSC.
- 8.8 Instructions for Air Sampling during Emergencies
  - 8.8.1 For initial air sampling, place a particulate filter upstream of a silver zeolite iodine sampling cartridge in the air sample filter head. Assure that arrow on cartridge is pointing in the direction of the flow.
  - 8.8.2 Use flow chart provided to determine sample times required to obtain desired volume, normal volume required will be  $1 \times 10^5$  cc unless otherwise instructed by the OSC.
  - 8.8.3 The air samples shall be analyzed in a low background area outside of the affected area. The area should be surveyed to verify that the background levels will not affect the sample analysis.
  - 8.8.4 The Eberline ESP-2 counting system will be used by the On-Site Emergency Team to analyze the samples for radioactive iodine (I-131).
  - 8.8.5 The Eberline ESP-2 counting system consists of: a calibrated ESP-2 meter, a cable (MHV-MHV), a shielded SPA-9 scintillation detector (or equivalent) and a BA-133 check source.



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EMERGENCY RADIATION TEAM RESPONSE - ONSITE

8.8.6 Background and source check

1. Place the probe and shield on a level, stable surface.
2. Press the reset button and obtain a one minute background count. Reload the data.
3. Place the BA-133 check source's active surface in contact with the end of the detector probe and press reset to obtain a one minute source count. Record the data.
4. Determine the net count rate for the source by subtracting the background CPM from the source CPM. The source net count rate should fall within 20 percent of the source value indicated on the instrument.

8.8.7 Sample Counting

1. Press the reset button and obtain a one minute background count. Record the results.

CAUTION: Take appropriate steps to prevent cross-contamination of probe and instrument.

2. Place the silver zeolite cartridge in contact with the end of the detector probe with the flow arrow on the cartridge pointing away from the probe. Press the reset button and obtain a one minute sample count with the probe directly over the cartridge. Record the data.



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3. Determine the net count rate on the sample by subtracting the background CPM from the sample CPM.
4. Use the net count rate to calculate air activity from the copy of completed Form HP-7V.5 provided with the emergency kit.

NOTE: The particulate sample may be counted together with the silver zeolite cartridge to measure any iodine that may have been filtered due to a chemical bond between iodine and particulate activity. The particulate filter should be placed between the probe and the silver zeolite cartridge if this analysis is performed. This analysis will only be performed as requested by the ERT leader.

- 8.8.8 Particulate activity analysis will be performed on the particulate filter alone. The filter should be removed from the whirlpack and placed approximately 1/2 inch below the window of a HP-210 Beta-Gamma probe connected to a count rate meter or scaler. The particulate activity is calculated using the following formula:

$$\text{Particulate Air Activity} = \frac{(\text{SAMPLE NET CPM}) \times (4.5 \times 10^{-7})}{(\text{VOLUME ml}) \times (0.1) \times (0.9)}$$

If high sample activity causes the HP-210 probe and count rate meter to exceed the highest scale (Off Scale Reading), survey the particulate filter with a gamma dose rate meter and record the results. All air sample analysis shall be documented on the HP-61 form.

- 8.8.9 Air sample filters shall be labeled by attaching a pre-formatted sample information form containing the following information:

1. Date
2. Time
3. Dose Rate
4. Sample Volume
5. Sample Activity
6. Name

- 8.8.10 The OSC ERT Leader shall be informed of the results of all air sample analysis.





This procedure may be affected by an O T S C (Or  
Spot Change) verify information prior to use  
Date verified \_\_\_\_\_ Initials \_\_\_\_\_

FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNITS 3 AND 4  
EMERGENCY PLAN IMPLEMENTING PROCEDURE 20133  
MAY 18, 1993  
Safety Related

1.0 Title:

Operations Support Center (OSC) Activation and Operation

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change dated: 5/18/93 Reviewed by Plant Nuclear Safety Committee: 93-117

Approved by Plant General Manager: 5/18/93

Periodic Review Due: 12/26/94 Implementation Date: 6/15/93

2.2 List of Effective Pages:

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
1	05/18/93	7	05/18/93	13	05/18/93	19	05/18/93
2	05/18/93	8	05/18/93	14	05/18/93	20	05/18/93
3	05/18/93	9	05/18/93	15	05/18/93	21	05/18/93
4	05/18/93	10	05/18/93	16	05/18/93	22	05/18/93
5	05/18/93	11	05/18/93	17	05/18/93	23	05/18/93
6	05/18/93	12	05/18/93	18	05/18/93		

3.0 Scope:

3.1 Purpose:

3.1.1 This procedure provides guidance for the activation and operation of the Operations Support Center (OSC).

3.2 Discussion:

3.2.1 The OSC is a staging area for emergency response personnel during emergency response activities. This facility is located on the West End 2nd floor of the Nuclear Maintenance Building (Attachment 1, OSC Layout).

3.2.2 Security Force Instruction 6307 provides information to the Security Officer for responding to and preparing his post in the OSC.

RTSs 91-1629, 92-0282, 93-0747



- 3.2.3 Not all procedures that potentially could be needed in the OSC are kept in the file cabinets. If additional procedures are needed from the Document Control Spare Copy Room, the OSC Health Physics Supervisor should evaluate the radiological conditions in the NAB and the NMB - NAB breezeway before Document Control personnel are dispatched to obtain the needed materials. Additionally, if additional equipment or supplies are needed, the same protocol should be used when accessing other areas of the plant.
- 3.2.4 Additional radios for ERD use should be obtained from plant departments, as required.
- 3.2.5 Attachment 3, Securing OSC Ventilation, provides instructions for minimizing potential radiological hazards, but does not isolate the facility. Alternate facility locations should be considered if hazardous conditions persist.
- 3.2.6 Backshift (peak and mid shift) maintenance planning personnel may be available to retrieve Vendor Technical manuals, if necessary.
- 3.2.7 Two Fax machines are available in the OSC. The OSC Operations Fax Machine will primarily be used for communications with the TSC. The OSC Chemistry Fax Machine will primarily be used for communication with the Health Physics and/or Chemistry Count Rooms.
- 3.2.8 The Security Command Post Operations Advisor is a Licensed Operator stationed in the Security Command Post to provide Operational interface and, liaison for security personnel during emergency situations when the onsite Emergency Response Facilities are activated. Operational questions from security should be coordinated through the TSC Security Supervisor to the Security Command Post Operations Advisor.

### 3.3 Authority:

- 3.3.1 Turkey Point Plant Radiological Emergency Plan

### 3.4 Definitions:

- 3.4.1 Radiological Hazard - Any radiation monitors 100 mR/hr over normal readings or airborne radioactivity at MPC levels.
- 3.4.2 Emergency Response Team (ERT) - A team of selected, qualified individuals comprised of Health Physics Radiation Protection Men, Chemistry Technicians, Journeymen from Mechanical, I&C, and Electrical Maintenance, Contract Medical Response Personnel, and Plant Operators utilized to respond to an emergency situation and conduct re-entry, mitigation, and radiological monitoring activities.



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3.4.3 Essential Personnel - Personnel assigned to fill positions in the Turkey Point Emergency Response Organization as listed in the Emergency Response Directory.

3.4.4 Non-Essential Personnel - Personnel not pre-assigned specific emergency response duties.

4.0 Precautions:

- 4.1 The OSC is normally located on the West End 2<sup>nd</sup> floor of the Nuclear Maintenance Building. If radiological conditions make this area uninhabitable, the OSC may be relocated to another area.
- 4.2 During any declared emergency with radiological hazards, no OSC personnel should be in the field without dedicated HP coverage. If only one HP Tech is attached to a team, that team may not break up until another HP Tech joins the team to provide necessary coverage.
- 4.3 Cameras are provided in the OSC Supply Cabinet. They should be utilized by teams investigating problems so accurate information can be transmitted to the OSC.
- 4.4 When possible and as conditions warrant, Security System cameras located around the plant may be used in investigating problems during an emergency. Requests should be made through the TSC Security Supervisor and may employ the Security Command Post Operations Advisor.



5.0 Responsibilities:

- 5.1 Emergency Response Team Members are responsible for bringing their radios to the OSC, assisting in the set up of the OSC per Attachment 2 of this procedure, and performing tasks as requested by their supervisor.
- 5.2 The OSC Supervisor is responsible for the following:
  - 5.2.1 Maintaining accountability, control, and habitability of the OSC during activation, operation and de-activation.
  - 5.2.2 Coordinating and directing OSC activation, operation, and de-activation.
  - 5.2.3 Ensuring communication links are established and updates are made to the TSC.
  - 5.2.4 Directing formation, dispatching, and maintaining accountability of ERTs.
  - 5.2.5 Directing implementation of Attachment 3, Securing OSC Ventilation, if radiological hazards exist in the facility.
  - 5.2.6 Coordinating and directing shift turn over of the OSC.
  - 5.2.7 Ensuring a log of activities is maintained.
- 5.3 The OSC Health Physics Supervisor is responsible for the following:
  - 5.3.1 Ensuring accountability and minimum staffing of Health Physics personnel in the OSC.
  - 5.3.2 Coordinating Health Physics coverage with the discipline Supervisors in the OSC for ERTs and field personnel.
  - 5.3.3 Coordinating radiological monitoring (surveys and dosimetry) based on plant radiological conditions as directed by the TSC Health Physics Supervisor. |
  - 5.3.4 Ensuring dosimetry is distributed and the required paperwork is completed for OSC personnel and ERTs.
  - 5.3.5 Ensuring the Health Physics section of the OSC is set up in a layout similar to Attachment 1, OSC Layout. |
  - 5.3.6 If radiological conditions warrant (i.e., release in progress, Control Room Radiation Monitor alarm, etc.) and sufficient OSC HP personnel are available, ensure that coverage is provided to the Control Room for contamination control and exposure monitoring.
  - 5.3.7 Dispatching ERTs - Offsite for radiological monitoring in accordance with EPIP-20129, Emergency Response Team - Offsite.
  - 5.3.8 Implementing EPIP-20111, Re-Entry.





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OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATION

- 5.3.9 Ensuring the OSC Supervisor is aware of all ERT activities.
- 5.3.10 Coordinating emergency exposures with the OSC Supervisor, TSC Health Physics Supervisor, and the Emergency Coordinator.
- 5.3.11 Maintaining a log of activities.
- 5.4 The OSC Operations, Chemistry, Mechanical, I&C, and Electrical Supervisor are responsible for the following:
  - 5.4.1 Ensuring accountability and minimum staffing of applicable personnel in the OSC.
  - 5.4.2 Ensuring the applicable section of the OSC is set up in a layout similar to Attachment 1, OSC Layout.
  - 5.4.3 Implementing EPIP-20111, Re-Entry.
  - 5.4.4 Ensuring the OSC Supervisor is aware of all ERT activities.
  - 5.4.5 Maintaining a log of activities.

6.0 References/Records Required/Commitment Documents:

6.1 References:

- 6.1.1 Turkey Point Radiological Emergency Plan
- 6.1.2 EPIP-20111, Re-Entry
- 6.1.3 EPIP-20129, Emergency Response Team - Offsite
- 6.1.4 Security Force Instruction 6307

6.2 Commitment Documents:

- 6.2.1 None

7.0 Records and Notifications:

- 7.1 Upon de-activation of the OSC, the following completed documents shall be transmitted to the Emergency Preparedness Coordinator who shall review and retain for archival purposes:
  - 7.1.1 The OSC Supervisor and discipline Supervisors in the OSC shall each maintain a log book of activities performed during a plant emergency. Log books shall be stored in the OSC Supply Cabinet.
  - 7.1.2 OSC Staff Accountability Log, Attachment 4.



8.0 Instructions:

NOTE: The OSC is a designated non-smoking facility. Eating and drinking shall be controlled and limited by the OSC Supervisor, and shall be prohibited whenever habitability surveys reveal any surface or airborne contamination activity.

8.1 The following steps should be accomplished for OSC activation:

8.1.1 The Emergency Response Team members should assist in the set up of the OSC in a layout similar to Attachments 1 and 2 and await further instructions from their discipline supervisors.

8.1.2 The OSC Security Officer should complete the following steps.

1. Obtain OSC Staff Accountability Logs (similar to Attachment 4) from the OSC Document Control Cabinets.
2. Referring to a form similar to Attachment 1, ensure that the OSC Staff Accountability Board is obtained (next to OSC HP Lockers), and setup so that OSC accountability can be maintained and OSC Supervisors can view the board to ensure sufficient OSC staffing.
3. If available and not distracting from other duties, assist in setup of the OSC referring to Step 8.1.1.

8.1.3 The OSC Supervisor should complete the following steps:

1. Sign in on the OSC Staff Accountability Board.
2. Direct OSC Recorder to maintain time/event information in the OSC Supervisor Logbook.
3. Upon arrival of the OSC Security personnel, ensure that keys for vehicle gates have been obtained and that control of access to and egress from the OSC is maintained.
4. Ensure Security personnel obtain accountability information from the OSC Staff Accountability Board using a form similar to Attachment 4, OSC Staff Accountability Log.
5. Ensure Health Physics personnel conduct equipment inventories and habitability surveys, as necessary.
6. Obtain personal dosimetry and complete associated documentation, as directed by the OSC HP Supervisor.
7. Ensure all OSC discipline Supervisors are accounting for personnel presently working on tasks for the Control Room and are entering information on the OSC Staff Accountability Board.



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OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATION

8. Ensure communication links with the TSC are established.
  - a. OSC Supv. and TSC Maintenance Manager |
  - b. Health Physics |
  - c. Chemistry |
9. Ensure the copy machine from the Instrumentation and Control shop has been transferred to the OSC and is operational.
10. Ensure status boards are being updated in a timely manner.
11. Verify the establishment of the radiological control point by Health Physics personnel in the Maintenance Building.
12. Verify the OSC is set up in a layout similar to Attachment 1, OSC Layout.

NOTE: The key to the OSC Document Cabinets are located in the OSC Key Box. Refer to the OSC Layout diagram for location. |
13. Upon arrival of the OSC Document Control Personnel, ensure access is established to the OSC Document Cabinets and that assistance obtaining controlled documents is being provided to the OSC Staff.

NOTE: The Emergency Coordinator has the authority to waive individuals' emergency response training requirements.
14. Initiate corrective actions to fill vacant positions, as necessary.
15. Establish full accountability for OSC personnel.
16. Ensure the following OSC positions are filled to satisfy minimum staffing requirements prior to declaring the OSC operational:
  - a. OSC Supervisor (1)
  - b. Mechanical Maintenance Journeymen (2)
  - c. Electrical Maintenance Journeymen (3)
  - d. I&C Maintenance Journeymen (1)
  - e. Health Physics Technicians (12)
  - f. Chemistry Technicians (2)
17. Ensure the TSC and Control Room are notified when the OSC is deemed operational.
18. Announce operational readiness to OSC personnel.
19. Perform appropriate section in 8.2. |

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8.1.4 The OSC Operations Supervisor should complete the following steps:

1. Sign in on the OSC Staff Accountability Board.
2. Maintain a log of activities.
3. Ensure that the Operations section of the OSC is set up in a layout similar to Attachment 1, OSC Layout.
4. Obtain personal dosimetry and complete associated documentation, as directed by the OSC HP Supervisor.

NOTE: Plant Operators should stay in their work areas if it is determined that a radiological hazard does not exist.

5. Determine status of on shift Plant Operators.

CAUTION: During emergency situations, the Plant Operator should obtain ICCS Keys from the break glass boxes in the Plant Operator shacks prior to reporting to the OSC.

6. Ensure the ICCS Keys and all available Hand Held Emergency Radios are obtained by the Plant Operators prior to them reporting to the OSC.
7. Ensure accountability of Plant Operators.
  - a. If all Plant Operators are present in the OSC, verify that they have signed in on the OSC Staff Accountability Board.
  - b. If all Plant Operators are not present in the OSC, establish contact (radio or plant page) with the Operators to acquire accountability information (name, badge No.) and enter on the OSC Staff Accountability Board.
8. If applicable, discuss with the OSC Health Physics Supervisor sending Health Physics coverage to Plant Operators in the plant.
9. Obtain emergency information status from shift personnel.
10. Anticipate and plan for the request of typical accident team tasks (i.e., PAHM's in service within 30 minutes of SI, PASS in service within 3 hours, etc.).
11. Obtain copies of Team Briefing/Debriefing Form stored in the OSC Document Control cabinet (form similar to Attachment 2 and 4 in EPIP-20111, Re-Entry).
12. Perform appropriate section in 8.2.

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8.1.5 The OSC Health Physics Supervisor should complete the following steps:

1. Sign in on the OSC Staff Accountability Board.
2. Maintain a log of activities.
3. Obtain emergency status information from shift personnel.
4. Ensure all available Hand Held Emergency Radios are transferred from the Health Physics Shift Supervisors (HPSS) office to the OSC.
5. Ensure HP phones are forwarded to the OSC.
6. Ensure accountability of Health Physics personnel:
  - a. If all Health Physics personnel are present in the OSC, verify that they have signed in on the OSC Staff Accountability Board.
  - b. If all Health Physics personnel are not present in the OSC, establish contact (radio or plant page) with them to acquire accountability information (name, badge No.) and enter on the OSC Staff Accountability Board.

NOTE: The RCA Checkpoint should be maintained until accountability is established and all non-essential personnel have left the RCA. The RCA Checkpoint may be maintained open if the Emergency Coordinator deems it necessary.

7. Ascertain the status of the RCA Checkpoint.
8. Determine the need to send Health Physics coverage to personnel presently in the plant.
9. Ensure that the Health Physics section of the OSC is set up in a layout similar to Attachment 1, OSC Layout.

NOTE: The key to the Health Physics Emergency Equipment Lockers is located at the HPSS's office and in the OSC Emergency Key Box.

10. Verify that the Health Physics Emergency Equipment Lockers have been opened and equipment has been checked.
11. Ensure that the OSC radiological control point (usually established on the ground floor at the North-East End of the Nuclear Maintenance Building) has been established.
  - a. Ensure all other 1st floor entrance doors and 2nd floor exit doors are blocked by the stanchions stored in the OSC Document Control cabinet.





12. Ensure habitability surveys of the OSC are initiated, as necessary. If abnormal radiological conditions threaten the facility, evaluate securing OSC ventilation and make appropriate recommendations to the OSC Supervisor.
13. Ensure that the Health Physics communication link to the TSC has been established.
14. Coordinate with the TSC Health Physics Supervisor support of the Assembly Area.
15. Contact the TSC HP Supervisor and determine the personal dosimetry requirements based on plant radiological conditions.
  - a. Obtain personal dosimetry and distribute dosimetry to OSC personnel, as required.
  - b. Ensure OSC Dose Recorder initiates all required dosimetry paperwork.

NOTE: HP-2, HP-9:20 and HP-9.21 Forms can be located in the Health Physics Spare Forms Files. The OSC Dose Recorder may use HP-9:20 and/or HP-9:21 or forms similar to record and track dose. If it is deemed necessary, access to individual control points can be tracked by using HP-2, Area Access Log.

16. Verify the ability to record and track dose.
17. Initiate corrective actions, as necessary, to fill open Health Physics positions.
18. Obtain copies of Team Briefing/Debriefing Form stored in the OSC Document Control Cabinet (form similar to Attachment 2 and 4 in EPIP-20111, Re-Entry).

NOTE: Keys for Vehicles 2181 (Emergency Preparedness Van) and 2281 (Fire Protection Pickup Truck) are located in the OSC Key Locker for ERT use.

19. Coordinate the acquisition of company vehicles for Emergency Response Teams - Offsite with the TSC Maintenance Manager, as necessary.
20. Ensure the ERTs-Offsite are prepared for dispatch for radiological monitoring in accordance with EPIP-20129, Emergency Response Team-Offsite, and dispatch as necessary.
21. If a radiological release is occurring or expected, anticipate the dispatch of the ERTs-Offsite.
22. Verify that status boards are being updated.
23. Ensure that the portable multi channel analyzer is taken to the OSC.
24. If radiological conditions warrant, and sufficient personnel are available, dispatch HP coverage to the Control Room, and to CAS/SAS as needed.
25. Perform appropriate section in 8.2.

8.1.6 The OSC I&C, Electrical, and Mechanical Supervisors should complete the following steps:

1. Sign in on the OSC Staff Accountability Board.
2. Maintain a log of activities |
3. Ensure accountability of maintenance personnel.
  - a. If all maintenance personnel are present in the OSC, verify that they have signed in on the OSC Staff Accountability Board.
  - b. If all maintenance personnel are not present in the OSC, establish contact (radio or plant page) with them to acquire accountability information (name, badge No.) and enter on the OSC Staff Accountability Board.
4. Ensure that the applicable maintenance sections of the OSC are set up in a layout similar to Attachment 1, OSC Layout. |
5. Obtain personal dosimetry and complete associated documentation, as directed by the OSC HP Supervisor. |
6. If applicable, discuss with the OSC Health Physics Supervisor sending Health Physics coverage to the maintenance personnel in the plant.
7. Initiate corrective actions to fill open positions.
8. Obtain copies of Team Briefing/Debriefing Form stored in the OSC Document Control Cabinet (form similar to Attachments 2 and 4 in EPIP-20111, Re-Entry).
9. If directed by the OSC Supervisor, dispatch personnel to secure OSC ventilation per Attachment 3 and obtain fans to circulate air within the facility.
10. Ensure the TV System is on and turned to the Emergency Information Channel (usually Channel 8). |
11. Obtain emergency status information from shift personnel.
12. Perform appropriate section in 8.2. |

8.1.7 The OSC Chemistry Supervisor should complete the following steps:

1. Sign in on the OSC Staff Accountability Board.
2. Maintain a log of activities |
3. Ensure accountability of Chemistry and Contract Medical Response Personnel.
  - a. If all Chemistry and Contract Medical Response Personnel are present in the OSC, verify that they have signed in on the OSC Staff Accountability Board.



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- b. If all Chemistry and Contract Medical Response Personnel are not present in the OSC, establish contact (radio or plant page) with them to acquire accountability information (name, badge No.) and enter on the OSC Staff Accountability Board.
4. Ensure that the Chemistry section of the OSC is set up in a layout similar to per Attachment 1, OSC Layout, including:
  - a. OSC Chemistry Fax machine operability, and
  - b. Chemistry Count Room Fax machine operability.
5. Obtain personal dosimetry and complete associated documentation, as directed by the OSC HP Supervisor.
6. If applicable, discuss with the OSC Health Physics Supervisor, sending Health Physics coverage to Chemistry personnel in the plant.
7. Initiate corrective actions to fill open positions.
8. Coordinate the planning of Containment Air Sampling, and Post Accident Sampling, as necessary.
9. Obtain copies of Team Briefing/Debriefing Form stored in the OSC Document Control Cabinet (form similar to Attachments 2 and 4 in EPIP-20111, Re-Entry).
10. Ensure that the chemistry communication link to the TSC has been established.
11. Obtain emergency status information from shift personnel.
12. Verify that the Emergency Medical Vehicle is staged inside the Protected Area.
13. Perform appropriate section in 8.2.

8.2 The following steps should be accomplished for OSC operation:

8.2.1 The OSC Supervisor should complete the following steps:

1. Ensure OSC Security Officers are controlling access to and egress from the OSC, and are maintaining a form similar to Attachment 2, OSC Staff Accountability Log.
2. Check personal dosimetry and ensure responsible OSC staff check personal dosimetry approximately every 30 minutes, as directed by the OSC HP Supervisor.

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3. Provide updates to OSC personnel and teams in the plant, as needed (classification changes, status of release, etc.), and approximately every 30 - 60 minutes.
4. Provide updates to the TSC Maintenance Manager of team activities.
5. Direct Emergency Response Team formation for re-entry activities and dispatch in accordance with requests from the TSC in accordance with EPIP-20111, Re-Entry.
6. Coordinate approval of exposures exceeding 10 CFR 20 exposure limits with the Emergency Coordinator and in accordance with EPIP-20111, Re-Entry.
7. Periodically verify the information on the status boards.
8. Periodically review the OSC Supervisors Logbook for accuracy.
9. Ensure all OSC discipline Supervisors are implementing EPIP-20111, Re-Entry.
10. In the event of an evacuation of the Protected Area, ensure that the list of OSC personnel is transmitted to the TSC Security Supervisor for accountability.
11. Prior to an evacuation of the Protected Area, ascertain activation of the assembly area and ensure Health Physics personnel have been dispatched, as needed.
12. Maintain OSC accountability.
13. If the habitability of the OSC requires OSC evacuation, contact the Emergency Coordinator to discuss relocation of the OSC. If the OSC ventilation should be secured, direct the OSC Maintenance Supervisors to implement Attachment 3 and to set up fans in the OSC for ventilation.
14. Determine OSC manpower requirements for extended operations.
15. Establish a shift relief schedule, as necessary.
16. Transmit the shift relief schedule to the TSC Maintenance Manager for approval by the Emergency Coordinator, as necessary.
17. Direct shift turnover of OSC personnel, as necessary.
18. Perform shift turnover to alternate OSC Supervisor, as necessary.

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8.2.2 The OSC Health Physics Supervisor, OSC Chemistry Supervisor, OSC Operations Supervisor, OSC I&C Supervisor, OSC Mechanical Supervisor, and OSC Electrical Supervisor should complete the following steps:

1. Check personal dosimetry and ensure responsible OSC staff check personal dosimetry approximately every 30 minutes, as required by plant radiological conditions.
2. Select qualified personnel for Emergency Response Team re-entry assignments.
3. Maintain an adequate number of emergency response personnel.
4. Maintain communications with Emergency Response Teams.
5. Conduct briefings and coordinate Emergency Response Teams in accordance with EPIP-20111, Re-Entry.
6. Verify Emergency Response Team dose tracking and recording.
7. Verify time and manpower constraints are enforced for Emergency Response Teams utilizing SCBA's and track the air time remaining in each SCBA throughout SCBA use.
8. If applicable, maintain communications with counterparts in the TSC (Health Physics, Chemistry).

NOTE: Keys for Vehicles 2181 (Emergency Preparedness Van) and 2281 (Fire Protection Pickup Truck) are located in the OSC Key Locker for ERT use.

9. If the dispatch of ERTs - Offsite is required, coordinate acquisition of radiological monitoring vehicles with the TSC Maintenance Manager, as necessary.
10. Ensure status boards are being properly maintained.
11. Maintain all OSC documentation.
12. Brief the OSC Supervisor on Emergency Response Team and re-entry activity status.
13. Coordinate shift relief with the OSC Supervisor, as necessary.

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OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATION

8.3 The following steps should be accomplished for OSC de-activation:

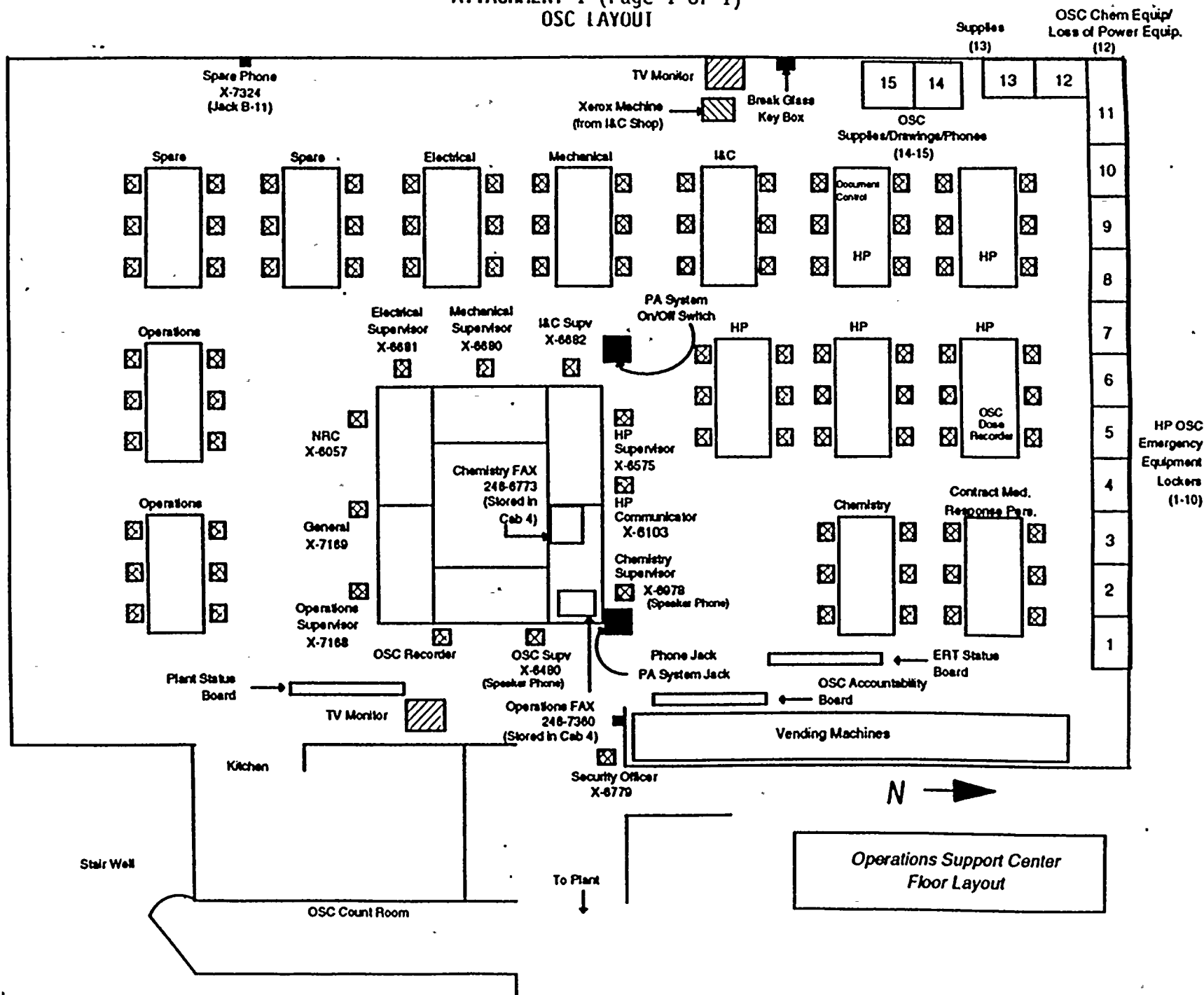
8.3.1 The OSC Supervisor should complete the following steps:

1. Coordinate OSC de-activation with the Emergency Coordinator.
2. Direct OSC de-activation with all OSC personnel.
3. Verify OSC accountability and ensure a form similar to Attachment 4, OSC Staff Accountability Log has been properly completed by OSC Security personnel and relayed to the OSC Recorder.
4. Ensure the OSC Recorder collects all OSC generated paperwork.
5. Ensure the OSC has been returned to its original condition and an inventory of equipment has been completed.
6. Forward all documentation to the Emergency Preparedness Coordinator.
7. Release OSC personnel, as appropriate.



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 ATTACHMENT 1 (Page 1 of 1)  
 OSC LAYOUT

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ATTACHMENT 2  
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OSC ACTIVATION

NOTE: All responders to the OSC should bring all available department radios to the OSC and test them for operability upon arriving at the OSC.

NOTE: These instructions assume that the OSC is being set up in its normal location (NMB second floor lunch room). However, the OSC may need to be set up in another location if radiological conditions threaten the safety of OSC responders. Coordinate with Maintenance to move the equipment in the OSC cabinets to the location directed by the Emergency Coordinator or the OSC Supervisor. The set up diagrams and directions provided in the OSC should also be brought to the new facility. If this move is required, the OSC should be set up as close to the normal fashion as possible under the direction of the OSC Supervisor.

1. Move the OSC Staff Accountability Board (normally stored near the HP lockers) to the OSC entrance hallway. Place it so the OSC Security Officer can refer to it and control access and so OSC Supervisors can review it to ensure sufficient OSC staffing.
2. Sign in on the Staff Accountability Board under your position on the "1" line (the "2" line is for your relief). Write your badge number next to your name!

NOTE: Emergency Locker keys can be obtained from the break glass key box located on the OSC west wall.

3. If not already done, obtain Emergency Locker keys (for the HP, chemistry, supply, and Document Control cabinets) and unlock and open these cabinets. |

NOTE: A diagram similar to Attachment 1, OSC Layout, is provided in two plastic cases. One case is mounted on the support column at the OSC entrance, and the other is mounted on the OSC west wall directly under the break glass key box. This diagram should be used for guidance in setting up the OSC.

4. Set up the OSC in a manner similar to Attachment 1, OSC Layout:
  - a. Set up the tables and chairs as shown in the diagram. It is important to set up the tables properly so that the facility functions as required and that the telephone cords will reach their assigned terminal locations.
  - b. Telephone set up:
    - (1) Remove the telephones and the telephone jack panel stored in the Document Control cabinets (rotating lockers on the west wall). |



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OSC ACTIVATION

- (2) Plug the telephone jack panel end into the outlet located on the support column near the OSC entrance and place the panel on the floor in the center of the tables.
  - (3) Place the telephones on the tables in the locations shown in the diagram according to the telephone numbers (each telephone has an identification label).
  - (4) Plug the telephones into the telephone jack panel as marked. The telephones must be plugged into the corresponding jack outlet in the panel for proper operation.
  - (5) Plug the telephone labeled "spare" into the jack located on the west wall (south end).
- c. Remove the fax machines from the cabinets and place them in the location as shown in the diagram. Plug the telephone cords into the telephone jack as labeled. Plug the power cords into the nearest electrical outlet.
  - d. The PA microphone is stored in the Document Control cabinet. Plug it into the support column near the entrance (as shown on the diagram), and then ensure the amplifier control switch (located on the support column in the center of the OSC) is placed in the on (up) position. Test the PA microphone and adjust the volume as necessary. The volume control is located next to the PA microphone plug.
  - e. Remove the position/discipline name placards from the Document Control cabinet. Place these placards in their brass bases and set them in the locations shown in the diagram. These are to help identify the groups and supervisors.
5. (HPs only) Inventory and ensure operability of Health Physics equipment and instrumentation.
  6. Obtain the Xerox copy machine from the Instrumentation and Control Shop and set it up per Attachment 1, OSC Layout. Plug the power cord into the nearest electrical outlet and check for operability.
  7. Move all other status boards to the positions shown in Attachment 1, OSC Layout (the ERT Board should be next to the HP area, and the SOE Status Board should be next to the OSC Supervisor).
  8. (HPs only) Provide assistance as needed to the OSC Dose Recorder to establish the assignment and documentation of dosimetry to OSC personnel.

**NOTE:** Health Physics may not be able to issue dosimetry to all OSC personnel immediately. Personnel assigned to Emergency Response Teams will take priority.

ATTACHMENT 2  
(Page 3 of 3)  
OSC ACTIVATION

9. Coordinate with Health Physics to obtain personal dosimetry and complete the required paperwork.

**NOTE:** The numbers marked in red next to the various positions on the OSC Staff Accountability Board indicate the minimum number of personnel required in that position. If that number of personnel is not present, the OSC cannot be activated. It is very important that adequate staffing be established as soon as possible in order to provide support and meet regulatory requirements. If you know of additional personnel on site who can fill positions on the OSC Staff Accountability Board, they should be contacted and told to report to the OSC. If they are out in the field performing important functions that cannot be stopped (actions needed to mitigate the emergency) as directed by the Emergency Coordinator, or are dispatched prior to the facility being activated (upon the request of the Emergency Coordinator), their names and badge numbers should be recorded on the OSC Staff Accountability Board and their status should be given to the OSC Supervisor as soon as possible. These personnel count toward the minimum staffing requirements for facility activation and, therefore, must be listed on the Staff Accountability Board.

**CAUTION:** Prior to OSC activation, personnel who need to remain out in the field should attempt to get a partner (call the Control Room if necessary). Due to the possibility of radiological conditions changing rapidly, Health Physics RPMs may be sent to accompany personnel remaining out in the field to provide radiological monitoring coverage. If RPMs are not available, any available personnel from the OSC should perform radiological monitoring coverage.

**CAUTION:** Plant Operators should remain in the plant until the OSC is ready to activate UNLESS there is a radiological hazard (an area radiation monitor reading 100 mr/hr or more above normal, or airborne activity at or above MPC levels). They need to relay their names and badge numbers to the Control Room or OSC. If there is a radiological hazard, Plant Operators should report to the OSC to obtain an individual for radiological monitoring coverage, and complete tasks as required. No one should remain in an area where they may exceed their allowed dose margin without the express permission of the Emergency Coordinator. Just prior to OSC activation, Plant Operators should report to the OSC after completing their assigned tasks.

10. If adequate staffing is not established in the OSC, contact any additional personnel in the needed discipline who have not yet responded and have them report to the OSC.
11. Remain in the area designated for your discipline and prepare to perform any tasks assigned by the OSC Supervisor.

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ATTACHMENT 3  
(Page 1 of 1)  
SECURING OSC VENTILATION

The following instructions are to be used to secure all the air handlers supplying the Nuclear Maintenance Building in the event that the OSC ventilation must be secured for radiological hazards:

1. Outside on the north side of the NMB is Room 116. In this room on the west wall by the entrance are the controls for AHU1 and AHU2. These units are to be secured by positioning the Hand/Auto switch to the off (center) position.
2. On the second floor of the NMB in Room 207, are the controls for AHU's 3 and 4. AHU3 control is on the west wall near the back of the room and AHU4 control is on the north wall in the back of the room. These units are to be secured by positioning the Hand/Auto switch to the off (center) position.
3. On the third floor of the NMB in Room 304, are the controls for AHU's 5 and 6. AHU5 control is on the west wall near the back of the room and AHU6 control is on the north wall in the back of the room. These units are to be secured by positioning the Hand/Auto switch to the off (center) position.

NOTES:

- Auxiliary equipment, i.e., compressors, chill water pumps, etc; do not need to be shutdown in order to stop air movement within the building.
- Even with all the air handlers shutdown, outside air is still present to the system through a common duct from the roof. The system is NOT designed to provide isolation, and will not prevent freeflow of air into the building.
- The NMB will not have a positive pressure within the structure with the NMB ventilation system secured.







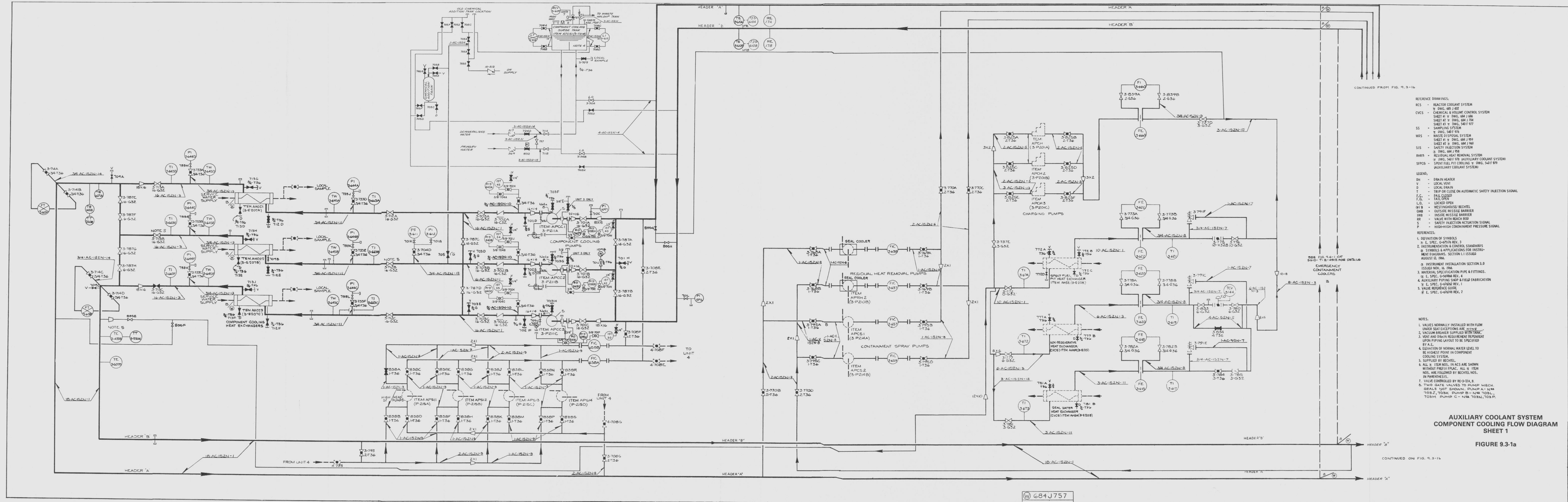
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ATTACHMENT 4  
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OSC STAFF ACCOUNTABILITY LOG

<u>POSITION</u>	<u>NAME</u>	<u>BADGE NO.</u>
OSC Health Physics Technicians (Cont'd)		
OSC Chemistry Supervisor		
OSC Chemistry Technicians		
Contract Medical Personnel (First Aid)		
OSC Mechanical Supervisor		
Mechanical Maintenance Personnel		
OSC Electrical Supervisor		
Electrical Maintenance Personnel		
OSC I&C Supervisor		
I&C Maintenance Personnel		
Miscellaneous Positions/Additions		





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