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Rev. 1/11/95

SUBJECT: Forwards Rev 28 to "Radiological Emergency Plan." Attachment 1 provides summary of plant radiological emergency plan Rev 28 changes.

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DEC 13 1994

L-94-317
10 CFR 50.54(q)
10 CFR 50, Appendix E

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Radiological Emergency Plan - Revision 28

Florida Power and Light Company (FPL) has issued Revision 28 to the Turkey Point Radiological Emergency Plan and has determined that the revision does not decrease the effectiveness of the plan.

By letter dated July 28, 1994 (William E. Cline to J. H. Goldberg), the NRC requested additional information in order to make a determination as to whether the effectiveness of the Turkey Point Radiological Emergency Plan was decreased by the changes implemented by revisions 26 and 27 of the plan. By letter L-94-221 dated August 31, 1994, FPL provided its response to the NRC's request for additional information, and committed to the removal of annual dose considerations for emergency worker exposure. By letter dated October 31, 1994 (William E. Cline to J. H. Goldberg), the NRC provided concurrence to FPL's proposed change regarding dose limits for emergency workers and requested the changes be implemented in the Turkey Point Radiological Emergency Plan by December 14, 1994. As requested by the NRC, revision 28 of the plan incorporates these changes.

In accordance with FPL's commitment as documented by FPL letter L-94-221, and with the consensus of the state and local governments, and the Federal Emergency Management Agency, Revision 28 of the plan also incorporates the use of Total Dose (TEDE) and Thyroid Dose (CDE) terminology. FPL is aware that the acceptability of this terminology within the plan is still under consideration by the NRC, as stated in the October 31, 1994 NRC letter referenced above.

Attachment 1 provides a summary of the Turkey Point Radiological Emergency Plan Revision 28 changes. Pursuant to 10 CFR 50.54 (q), Attachment 2 provides one copy of the plan.

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. Ebneter, Regional Administrator, Region II, USNRC (2 copies)
T. P. Johnson, Senior Resident Inspector, USNRC, Turkey Point Plant (no enclosure)

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ATTACHMENT 1

SUMMARY OF TURKEY POINT RADIOLOGICAL EMERGENCY PLAN - REVISION 28 CHANGES

Revision 28 of the plan incorporate changes as specified by FPL letter L-94-221 dated August 31, 1994. In order to minimize any confusion which may arise as a result of the change to local officials for Protective Action Recommendations (PAR), the Total Effective Dose Equivalent (TEDE), Total Organ Dose Equivalent, and Committed Effective Dose Equivalent are referred to in the Plan as Total Dose (TEDE) and Thyroid Dose (CDE).

To assist in your review, the revision 28 changes to the plan are summarized below and are detailed in pages 2 through 6 of this attachment.

Global changes made throughout the Plan are as follows:

- Change all pronouns to non-gender specific (i.e. he to he/she).
- Change Monroe County Civil Defense to Monroe County Office of Emergency Management.
- Change Emergency Preparedness Supervisor to Emergency Preparedness Coordinator

Major changes are as follows:

- Remove "System Operation Power Coordinator (SOPC)" as backup method of contacting the Emergency Control Officer or Nuclear Division Duty Officer (NDDO). There are now several other options for making this notification. The NDDO Schedule lists several methods of contact including call forwarding from the NDDO designated company phone, cellular phone and alpha/numeric paging. Additionally any other qualified NDDO can act as a backup.
- Revised Table 3-1 Emergency Classification Table based on the NRC memo July 11, 1994, "Branch Positions on Acceptable Deviations to Appendix 1 of NUREG - 0654/FEMA - 1." See changes on pages 3-5 through 3-24.
- Revise the "State of Florida Notification Message Form for Nuclear Power Plants" to incorporate Total Dose (TEDE) and Thyroid Dose (CDE) terminology. See change on page 4-5.
- Revise five year exercise cycle to six year cycle based on NRC Inspection Procedure 82302 which references Supplement 1 to NUREG 0654 "Criteria for Utility Off-site Planning and Preparedness - Final Report." See page 7-3.
- Incorporated periodic review of the Emergency Plan and EPIPs and review by the CNRB which are being removed by Tech. Specs. See page 7-9.
- Change reference from "NUMARC, EEI and KMC Inc." to "NEI." See page 7-11.

ATTACHMENT 1

CHANGES TO REVISION 27

Section	Page	
1.2	1-3	Changed word... "activate" to "implement the appropriate sections of the Emergency Plan."
1.2	1-5	Changed definitions for "Thyroid Dose" (CDE) and "Total Dose" (TEDE).
Fig 1-1	1-7	Remove shading and add bold lines to Emergency Planning Zones.
Fig 1-2	1-12	Remove box for "System Operation Power Coordinator (SOPC)". This was originally as a backup method of notification for the Nuclear Division Duty Officer (NDDO). There are now several other options for making this notification. The NDDO Schedule list several methods of contact including call forwarding from the NDDO designated company phone, cellular phone and alpha/numeric paging. Additionally any other qualified NDDO can act as a backup.
Fig 2-1	2-2	Changed Security Shift Supervisor to "Security Specialist," title change by Security.
2.1	2-3	Deleted reference to Division of the Florida Highway Patrol. This is consistent and covered by "Other Agencies" in next paragraph.
2.1	2-7	Next to last paragraph following Emergency Coordinator added "or Recovery Manager" if EOF is operational.
Table 2-2a	2-20,21	Incorporated note regarding staff augmentation capabilities into existing columns.
Table 2-2b	2-22	Delete the word "Shift" from Security Shift Specialist.
2.2	2-23	Add "EC" to the end of first sentence. Change "His" to "The EC's" in the next sentence. In second paragraph first sentence change the word "via" to "by" and add "or via a designee" to the end of the sentence.
2.4	2-27	Added the word "onsite facilities" for Figure 2-6 reference.
	2-30	Change near site information center to allow for discretion on location.
	2-31	Updated locations of the Monroe County Emergency Operations Centers.

Section	Page	
	2-35	Revised medical facilities. Both Baptist Hospital and Mercy Hospital can provide primary response. RE/ACTS, in Oak Ridge, Tn., is a backup facility.
Table 3-1	3-5	[1]Delete Emergency Classification Table #1 Primary depressurization ECCS Initiated Manually or Automatically.
Table 3-1	3-9	[1]Delete Emergency Classification Table #5 Abnormal RCS Temperature and/or Pressure.
Table 3-1	3-9	Under Emergency Classification Table #5 Loss of Safe Shutdown/ATWS for Site Area Emergency D. add to "RCS Injection Capability has been lost from..." "...except due to loss of all A. C. power (refer to Category 12, Loss of Power)." This change is added to ensure that the Site Area Emergency classification is correctly and consistently declared.
Table 3-1	3-10	[1]Under Emergency Classification Table #6 Fuel Element Failure for Unusual Event change from RCS activity is greater than T.S. limits for activity to "RCS activity requiring plant shutdown or cooldown per T.S. 3.4.8." This change is made to be consistent with Technical Specification requirements.
Table 3-1	3-11	Under Emergency Classification Table #7 Uncontrolled Effluent Release for Site Area and General Emergencies...Change all Total Whole Body to "Total Dose Rate" and all Total Whole Body to "Total Dose (TEDE)" add (CDE) to "Thyroid."
Table 3-1	3-14	[1]Delete Emergency Classification Table #13 "Contaminated Personnel"
Table 3-1	3-15	Under Emergency Classification Table #11 Loss of Assessment Functions for Unusual Event insert new "A. Unplanned loss of most or all safety system annunciators for greater than 15 minutes." Delete B. and renumber accordingly.

[1]Table 3-1 Emergency Classification Table has been revised to incorporate guidance based on the NRC memo July 11, 1994, "Branch Positions on Acceptable Deviations to Appendix 1 of NUREG - 0654/FEMA - 1."

Section	Page	
Table 3-1	3-15	[1]Under Emergency Classification Table #11 Loss of Assessment Functions for Alert, change classification to read "Unplanned loss of most or All safety system annunciators AND Plant transient in progress.
Table 3-1	3-15	[1]Under Emergency Classification Table #11 Loss of Assessment Functions for Site Area Emergency, change classification to read "Inability to monitor a significant transient in progress.
Table 3-1	3-16	Under Emergency Classification Table #12 Natural Phenomena for General Emergency, change "which *could cause*" to "which *has caused*" to be consistent with the General Emergency conditions (refer to Section 17, Other Plant Conditions Requiring Increased Awareness).
Table 3-1	3-18	Under Emergency Classification Table #15 Fire for General Emergency, change "which *could cause*" to "which *has caused*" to be consistent with the General Emergency conditions (refer to Section 17, Other Plant Conditions Requiring Increased Awareness).
Table 3-1	3-19	[1]Under Emergency Classification Table #16 change the title from "Loss of Engineered Safety Features/Fire Protection" to "Plant Shutdown." Change the Unusual Event class to read "Any plant shutdown required by Technical Specifications in which the required shutdown is not reached within the Action statement limits."
Table 3-2	3.25,26	Added "Typical" to "Setpoint" column heading corrected to current setpoints. Added statement to bottom of page "Actual Setpoints are determined as outlined in the Offsite Dose Calculation Manual (ODCM)." Updated Measurements and Typical Setpionts to reflect current ODCM values. Corrected Measurements and Setpoints and corrected to "Specific Particulate Iodine Noble Gaseous Monitors (SPING)."

[1]Table 3-1 Emergency Classification Table has been revised to incorporate guidance based on the NRC memo July 11, 1994, "Branch Positions on Acceptable Deviations to Appendix 1 of NUREG - 0654/FEMA - 1."

Section	Page	
4.1.1	4-2	In second paragraph, added the word "emergency" between corporate and response. Deleted reference to System Operations Power Coordinator (SOPC)". This was originally a backup method of notification for the Nuclear Division Duty Officer (NDDO). There are now several other options for making this notification. The NDDO Schedule list several methods of contact including call forwarding from the NDDO designated company phone, cellular phone and alpha/numeric paging. Additionally any other qualified NDDO can act as a backup.
4.1.2	4-2&3	Changed "Corporate" to "Offsite" and added "Response" between Emergency and Organization. Reworded "Follow-up messages regarding the prognosis for worsening or terminating of the event" to read "Follow-up messages regarding plant status and requests for..." Added "These protective measures are referenced in Figure 5-1" to end of paragraph.
4.2	4-3	Corrected "Appendix A" to "Annex F of the Florida Radiological Emergency Management Plan for Nuclear Power Plants. File locations are listed in Appendix A."
4.2.1	4-3	Changed "offsite agencies" to "offsite State and local government agencies" to clarify communication responsibilities.
Table 4-2	4-5	Revised "State of Florida Notification Message Form for Nuclear Power Plants."
4.2.2	4-7	Correction in first paragraph from "Duty Warning Point Duty Officer" to "State Warning Point Duty Officer".
4.3	4-7	In the fourth sentence, delete "Warning Point" after "Division of Emergency Management" and insert "Office of" between "County and Emergency Management".
4.4.1	4-8	Replace "Bethesda, MD" with "Maryland" per NRC Administrative Letter 94-04
4.6	4-10	Change "Radio Paging System" to "FPL Radio Paging System" (same change in paragraph) Change "Corporate Emergency Organization" to "FPL Emergency Response Organization."
4.6	4-10	Under "State Hot Ring Down" change "two-digit access" to "three-digit access".

Section	Page	
5.1.3	5-3	Changed National Weather Service "at Miami International Airport" to "in Miami" to reflect correct location.
Fig 5-1	5-8	Protective Action Recommendation Table: Change "Total Whole Body Dose" to "Total Dose (TEDE)" and change "Thyroid Dose" to "Thyroid Dose (CDE)".
5.1.6	5-10	Last sentence of first paragraph on page, change "Section VII to Annex I" to "Section III of Annex I"
5.1.6	5-11	Change EPIP-1212, Activation and Use of the Emergency Operations Facility (Turkey Point) to Emergency Plan Implementing Procedures to cover all references to coordination of sampling.
5.2.1	5-12	Clarified terminology regarding dose at which radioprotective drugs will be given "...an approximate exposure *to the thyroid* of 25 *(CDE)* rem..."
5.2.1	5-13	Last paragraph under "Off-site", spell out RM - "Recovery Manager".
5.2.2	5-14	First sentence change "Such conditions" to "Conditions such"
Table 5-3	5-16	Change typical population for Child Development Center from "50" to "150" and total from "1887" to "1987."
Table 5-4	5-19	Change revision date for "State of Florida Radiological Management Emergency Plan" from 12/92 to 7/94.
Fig 5-5	5-20	Remove shading, add bold lines to Emergency Planning Zones, and add sectors.
5.2.8	5-21	Change number of electronic sirens from 48 to 47 to accurately reflect current status of siren system for PTN.
5.3	5-21-23	Insert new FPL Nuclear Division Corporate Health Physics policy for "Radiological Exposure Control" revised October 26, 1994, reference Ltr. # JNO-HP-94-056.
Table 6-1	6-5	Under "Option 3." Change to read "The unit will be brought off line immediately and an orderly shutdown will be initiated in accordance with plant procedures".

Attachment 1
Changes to Revision 27

Section	Page	
Table 6-7	6-11	Updated rumor control telephone numbers for Dade Co. Office of Emergency of Emergency, and added rumor control number for Monroe Co.
7.1.4.1	7-3	Change from five year exercise program to six year program based on NRC Inspection Procedure 82302 which references Supplement 1 to NUREG 0654 "Criteria for Utility Off-site Planning and Preparedness - Final Report."
7.1.4.4	7-5	Fire drills are conducted in accordance with 10 CFR 50 Appendix R (reference to T.S. deleted).
7.2.4	7-8	Changed "Disaster Preparedness" to "Emergency Management" Officials to reflect current terminology.
7.3.1	7-9	Remove reference to Technical Specification (T.S.) required review of the Emergency Plan (E-Plan requirement removed from T.S.) and add reference to review by Company Nuclear Review Board.
7.3.4	7-10	Under Audits, remove reference to Technical Specifications and after "regulation" add "to include evaluation of the adequacy of interfaces with state and local governments, and of drills, exercises capabilities and procedures."
7.3.5	7-10	Deleted the word "Site" from "Plant Site Services Manager" to read "Plant Services Manager."
7.3.6	7-11	Change last sentence from NUMARC, Edison Electric Institute, and KMC, Inc. to "Nuclear Electric Institute."
Appendix B	B-1	Added "Raytheon Engineers and Constructors, Ebasco Division" to Technical Support Agreement list.
Appendix C	C-1	Change title of EPIP-20129 from Emergency Radiation Team Response - Offsite to "Emergency Response Team - Radiological Monitoring"
Appendix C	C-1	Deleted EPIP-20130 "Emergency Radiation Team - Onsite." This procedure has been incorporated into EPIP 20129 "Emergency Response Teams- Radiological Monitoring."

ATTACHMENT 2

TURKEY POINT RADIOLOGICAL EMERGENCY PLAN - REVISION 28

Implement pages for
Rev. 28 REP 12/13/94
50-250/251
9412220270

TURKEY POINT PLANT

RADIOLOGICAL

EMERGENCY PLAN

REVISION 27

Reviewed by Plant Nuclear Safety Committee #94-054 Date: 3/22/94

Approved by: [illegible] for JH Goldberg Date: 3/28/94
President, Nuclear Division

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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 1 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. The Duty Call Supervisor 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.

Thyroid Dose - The dose commitment from both external and internal sources - Total Organ Dose Equivalent (TODE)

Whole Body Dose - The total whole body exposure from both external and internal (weighted) sources - Total Effective Dose Equivalent (TEDE); designated as Total Whole Body Dose.

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).*

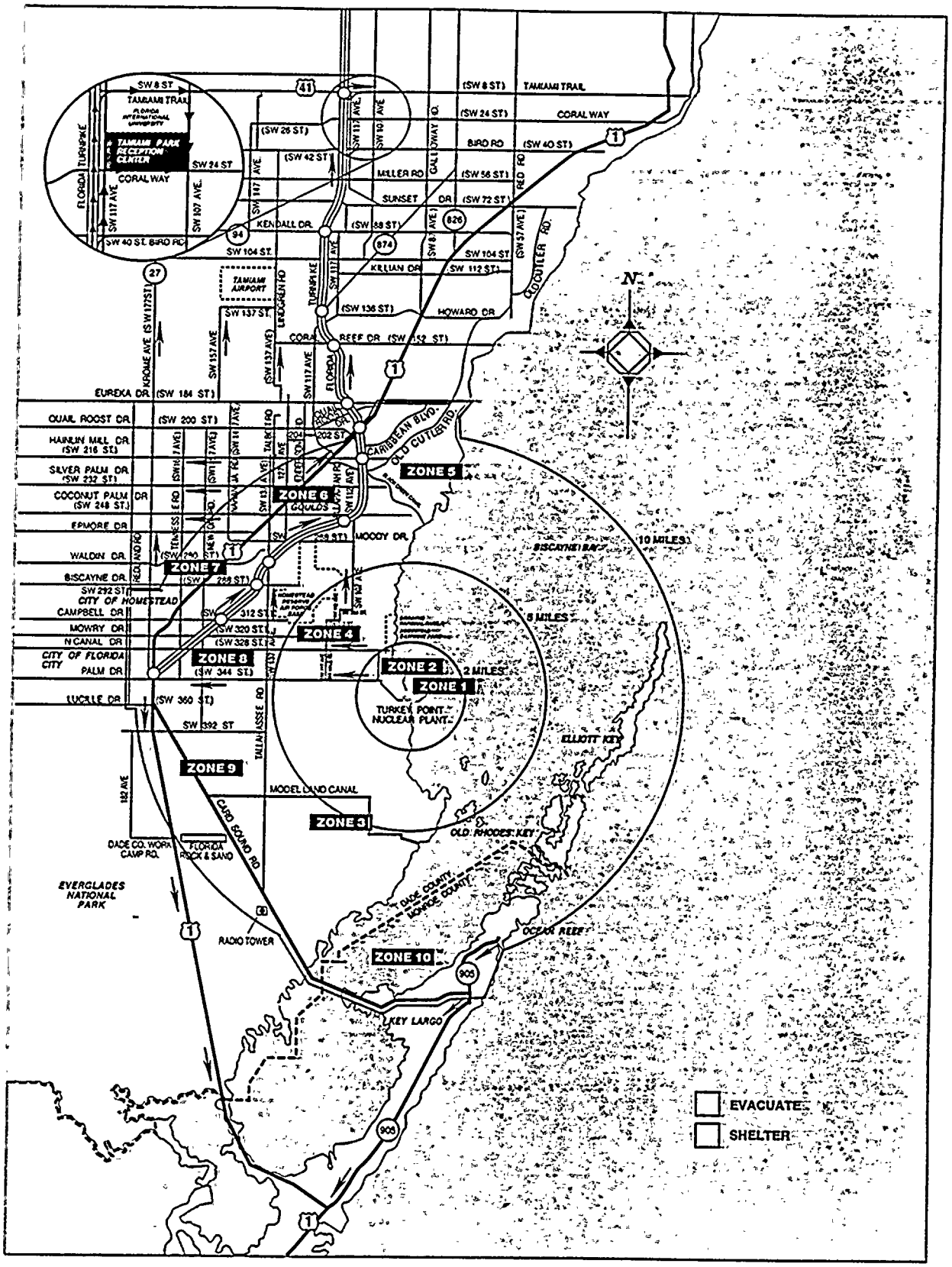
5) *Assisting governmental agencies in the development of information for the public both in terms of preparatory education and emergency response information (Chapter 6).*

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. These procedures are listed in Appendix C.

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) and 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 be 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 activation of Corporate FPL 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, references the State of Florida Radiological Emergency Management Plan, and the locations where it is maintained for Turkey Point Emergency response. 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 400-R-92-001

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 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. This may be done via the Duty Call Supervisor (DCS) and Nuclear Division Duty Officer (NDDO).
- o Duty Call Supervisor notifies plant management.

TABLE 1-1

TYPICAL SEQUENCE OF ACTIONS

Expanded Response (Alert Class and Higher)

Actions:

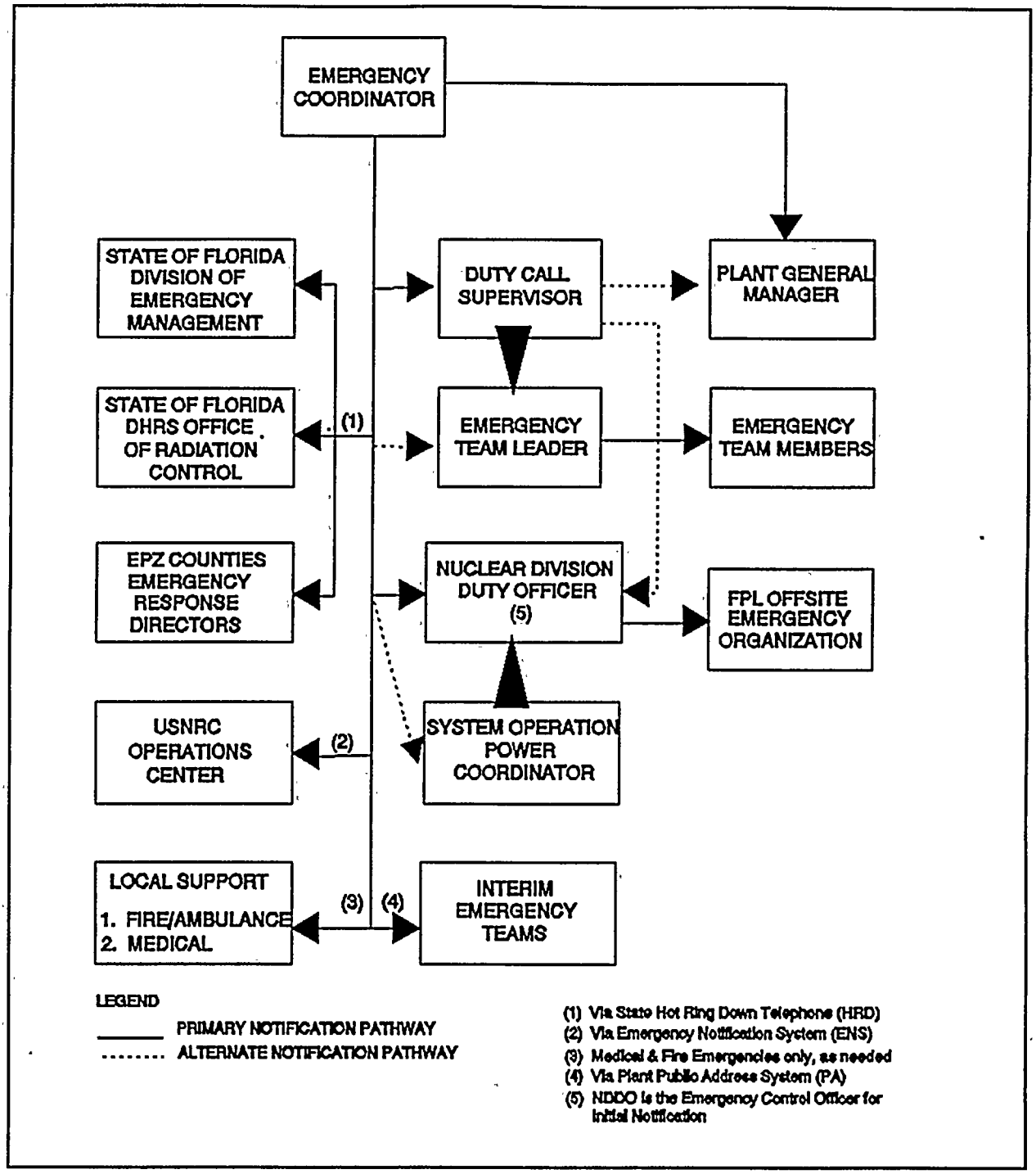
- o ECO and RM proceed to Nuclear Division Management Center or the Emergency Operations Facility, as appropriate. RM notifies EC when EOF is operational and assumes responsibility for protective actions and for communications with offsite organizations. The EC can now devote his/her attention to control 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 a 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



** The DCS may be utilized to notify the ECO/NDDO at the discretion of the Emergency Coordinator*

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.*

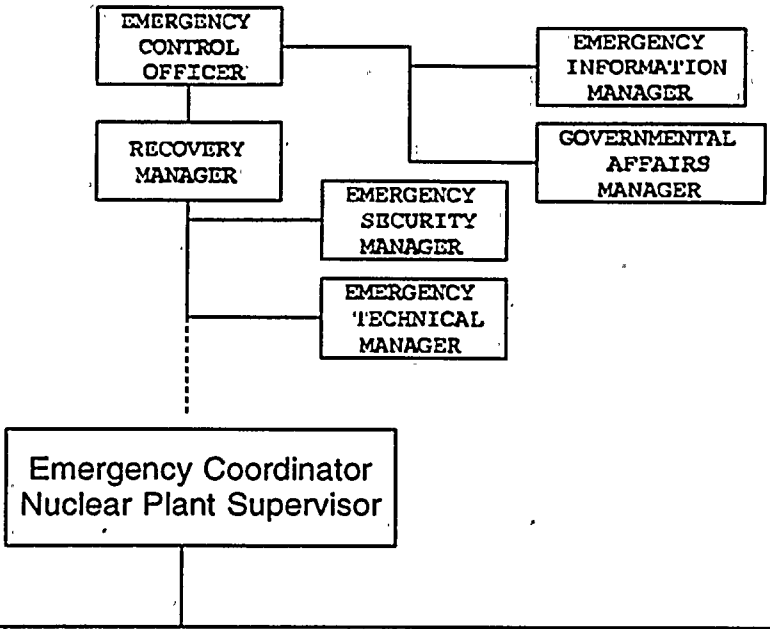
The Florida Power & Light Company Emergency Response Organization is described in detail in Section 2.2 and illustrated in Figure 2-1.

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 ORGNIZATION



On-Shift Team Leader	Emergency Function	Primary Team Leaders
None	Recovery & Restoration	As Directed by Recovery Manager
Health Physics Representative	Radiation Protection	TSC Health Physics Supervisor
Nuclear Watch Engineer Senior Nuclear Plant Operator	Fire	Nuclear Watch Engineer Senior Nuclear Plant Operator
Chemistry Technician HP Radiation Protection Man	First Aid & Decontamination	Chemistry Technician HP Radiation Protection Man
As Directed by Security Shift Supervisor	Security	TSC Security Shift Supervisor
As Directed by Security Shift Supervisor	Site Assembly Area	Site Assembly Supervisor
As Required from Available Staff	Emergency Response (Re-Entry Repair)	OSC Emergency Response Teams

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 Annex B of the State Plan.

Other State Agencies

The DEM can request support, as necessary, from other state agencies as defined in Annex B of the State Plan.

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. Annex K 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

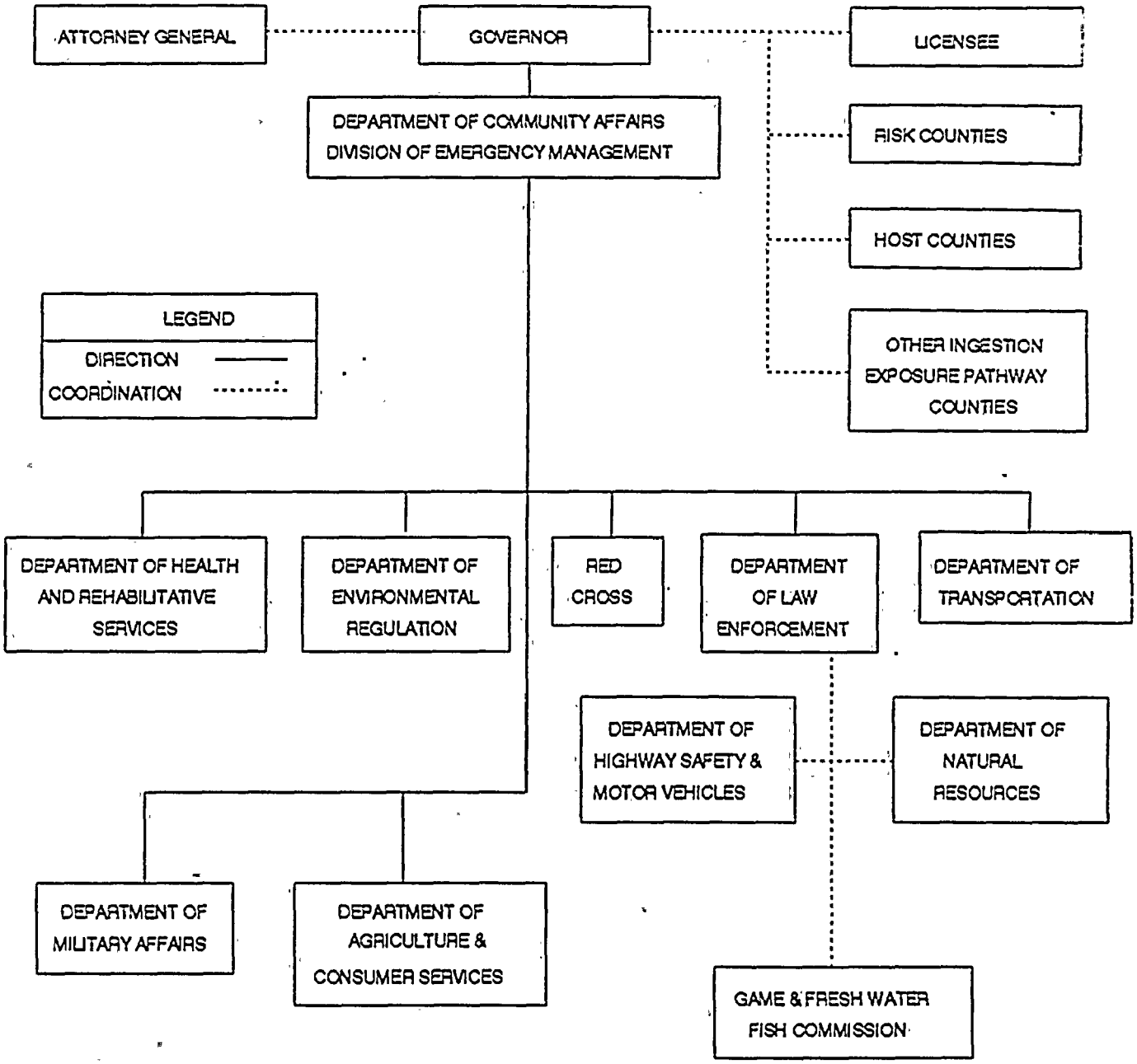
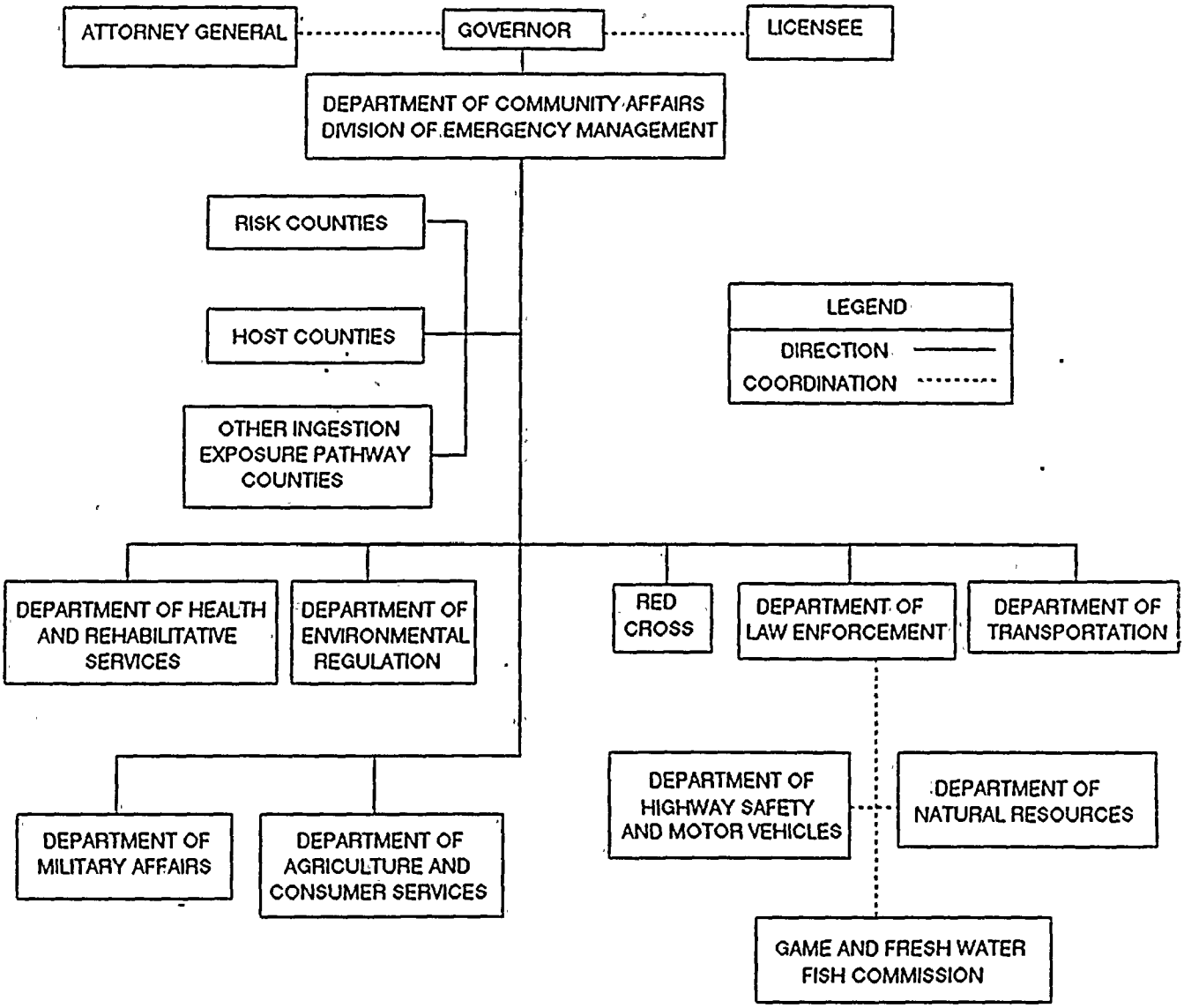


FIGURE 2-2b

STATE, LOCAL, AND FEDERAL RESPONSE AFTER EXECUTIVE ORDER



Decision to implement protective action recommendations will be made jointly by the Dade County Manager and Chairperson, 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 Chairperson, 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 Chairperson, Monroe County Board of Commissioners, unless a disaster declaration under provisions of Florida Statues, Chapter 252 is in effect. If a disaster has been declared, responsibility for direction and control rests with the Governor or Director, Division of Emergency Management.

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 Chairperson, 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.

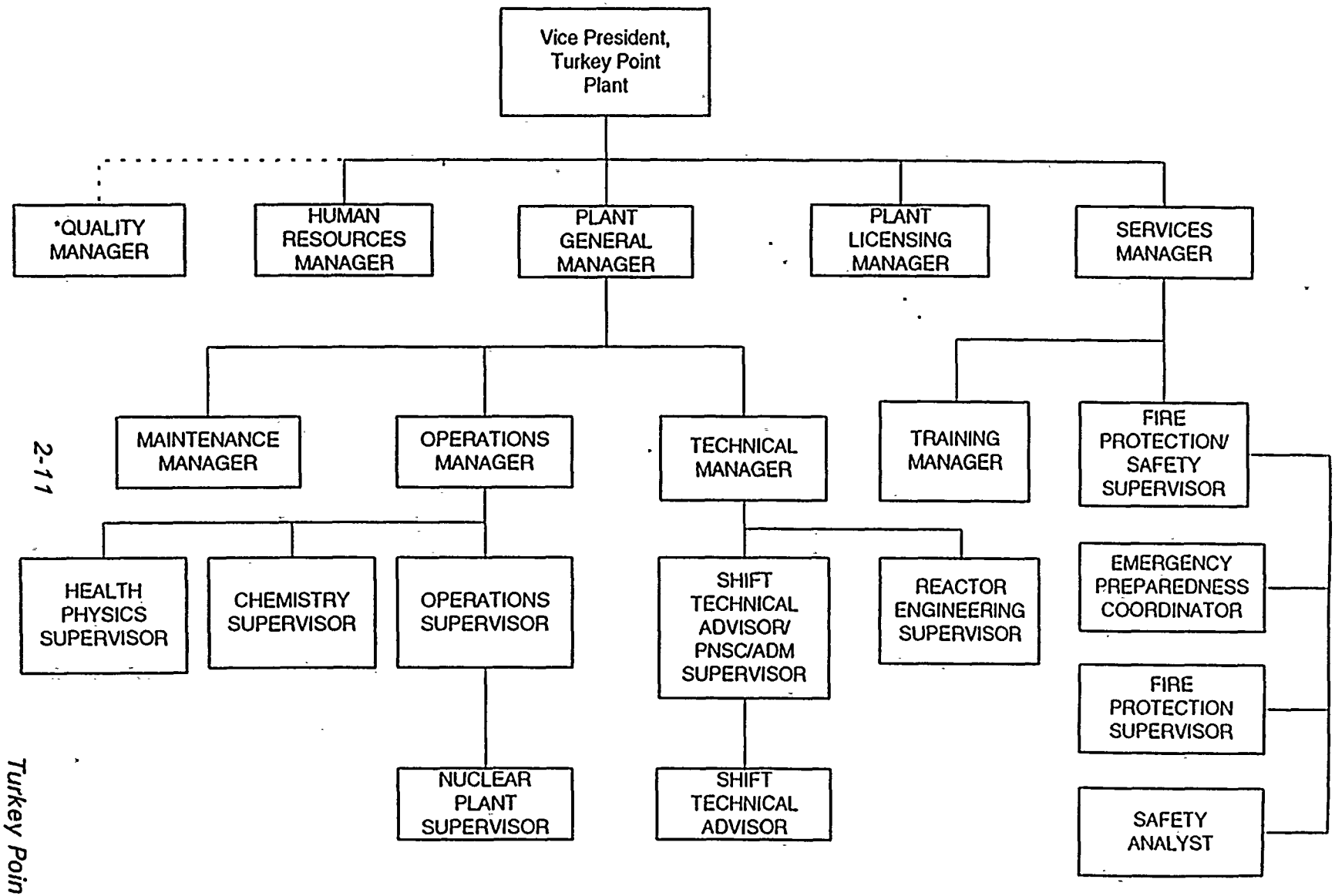
2.2.1 Normal Operating Organization

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 **



* Reports to Vice President, Nuclear Assurance
** This figure depicts a limited plant organization for Emergency Plan purposes.

Vice President, Turkey Point Plant

The Vice President, Turkey Point Plant 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

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

Operations Manager

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

Operations Supervisor

The Operations Supervisor 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. The Nuclear Plant Supervisor directs the activities of the personnel on his/her shift and is cognizant of maintenance activity being performed while on duty. The Nuclear Plant Supervisor reports directly to the Operations Supervisor.

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/she 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. The Assistant Nuclear Plant Supervisor reports directly to the Nuclear Plant Supervisor.

Nuclear Watch Engineer

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

Health Physics Supervisor

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

Chemistry Supervisor

The Chemistry Supervisor supervises the Chemistry Department. He/she is responsible for chemical and radiochemical monitoring, analysis, and evaluation. He/she 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/she 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/she 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.

Quality Manager

The Quality Manager supervises the Quality Control/Quality Assurance Department. He/she 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.

Services Manager

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

Plant Nuclear Safety Committee (PNSC)

The PNSC functions to advise the Plant General Manager 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 Coordinator 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 Coordinator 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.*

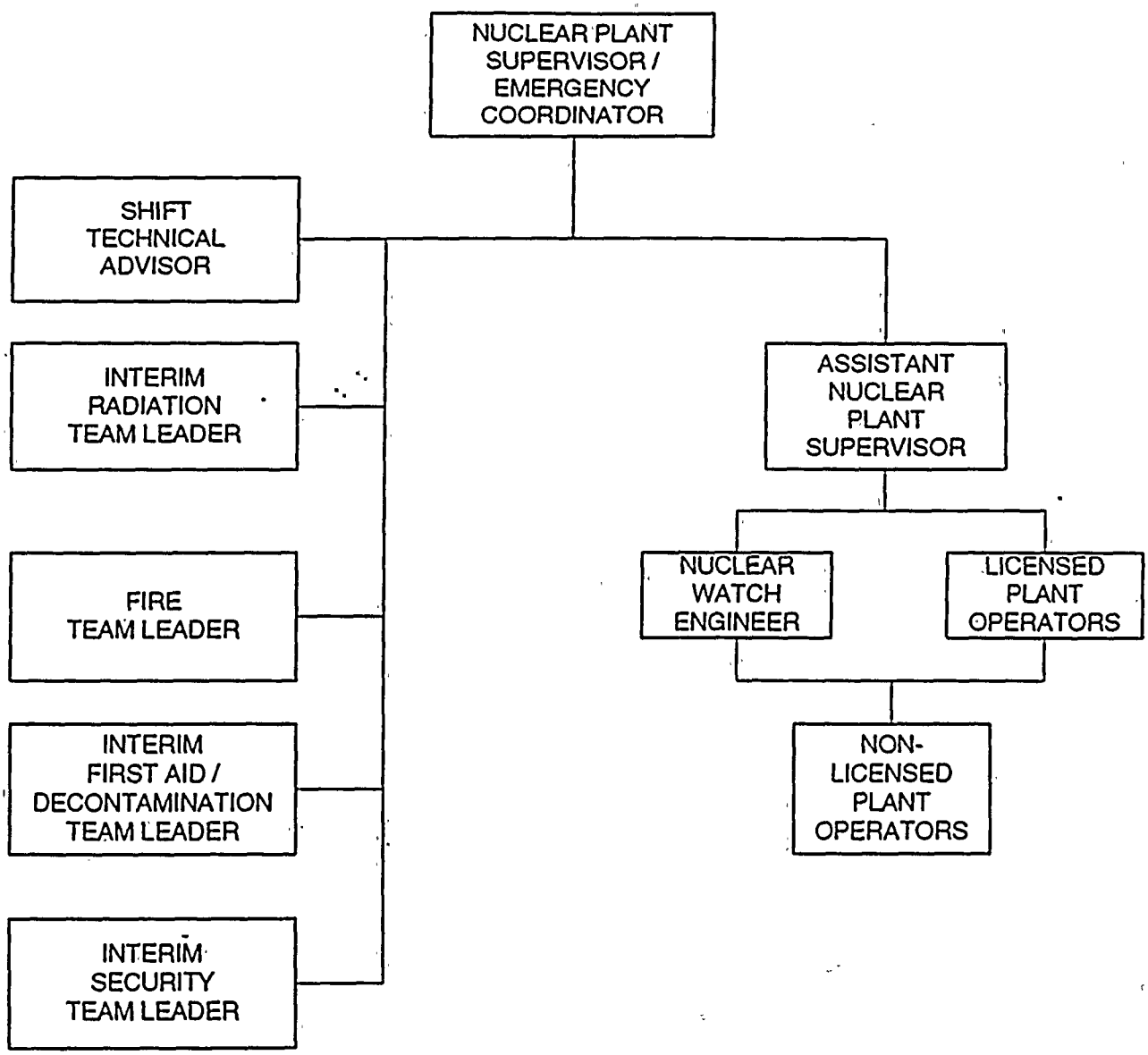
2) *Members of an On Shift Emergency Response Team may consider themselves relieved only upon the specific instructions of a recognized superior. Merely knowing that a superior is present does not constitute a release from emergency duties and responsibilities.*

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/she may be relieved as the Emergency Coordinator by another member of the plant management staff who is trained as Emergency Coordinator. The 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/she 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/she 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 an 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

Position/Function	On-Shift	
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

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

* Estimated response time from receipt of notification.
** Combines all qualified individuals for similar functions from Table B-1.
*** 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

Major Functional Area	NUREG 0654, Rev. 1 Table B-1 Guidance 30 min.*	60 min.*	Augmented Staffing Capabilities***
3. Plant System Engineering, Repair and Corrective Actions			
A. Core/Thermal Hydraulics	1	-	
B. Electrical (TSC)/	-	1	
Mechanical (TSC)	-	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.

*** 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

Function	Responsibility	
	Immediate	Expanded
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 is the Vice President, Turkey Point Plant, 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.

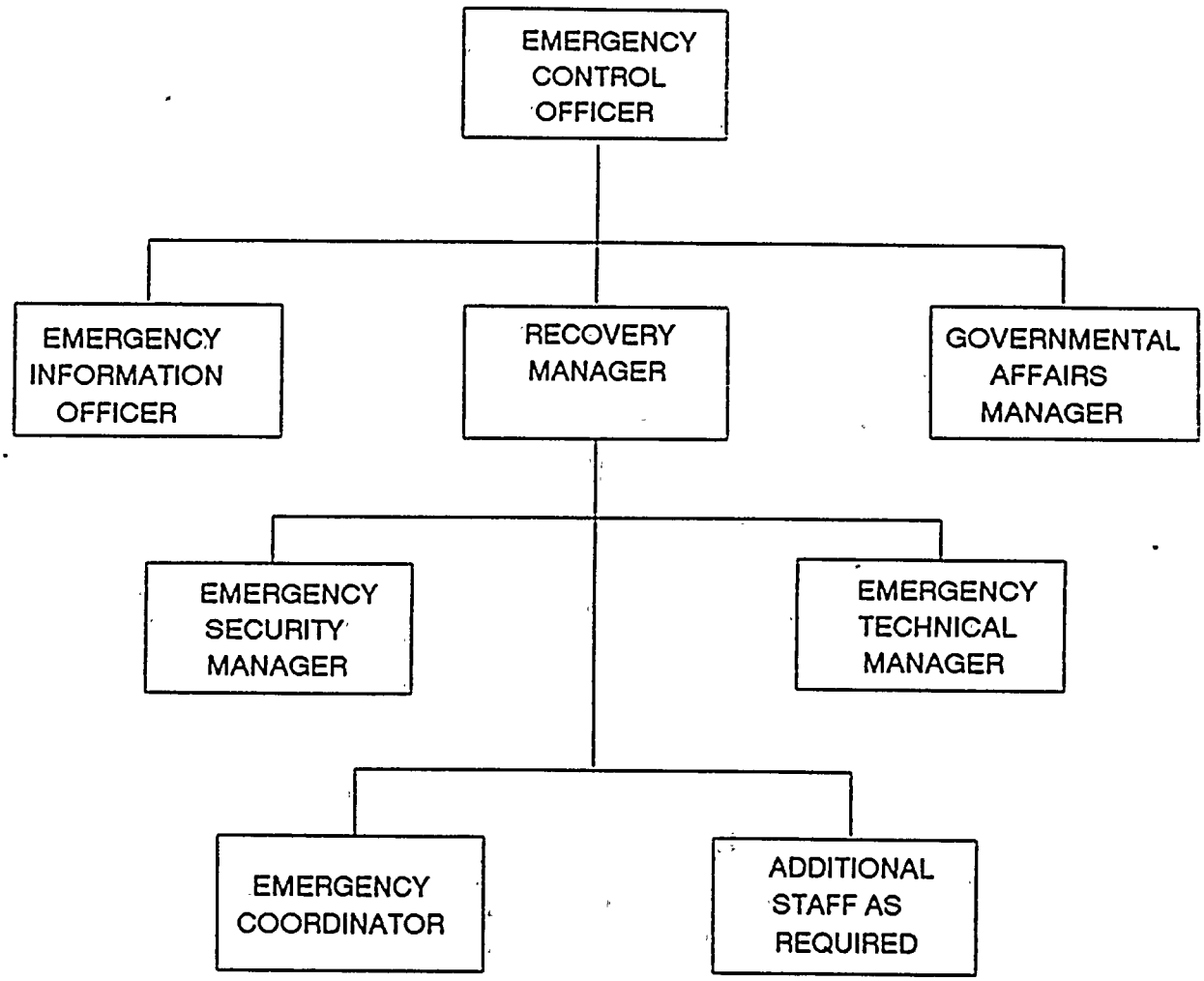
1) *To act as principal public spokesman for FPL.*

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 State 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

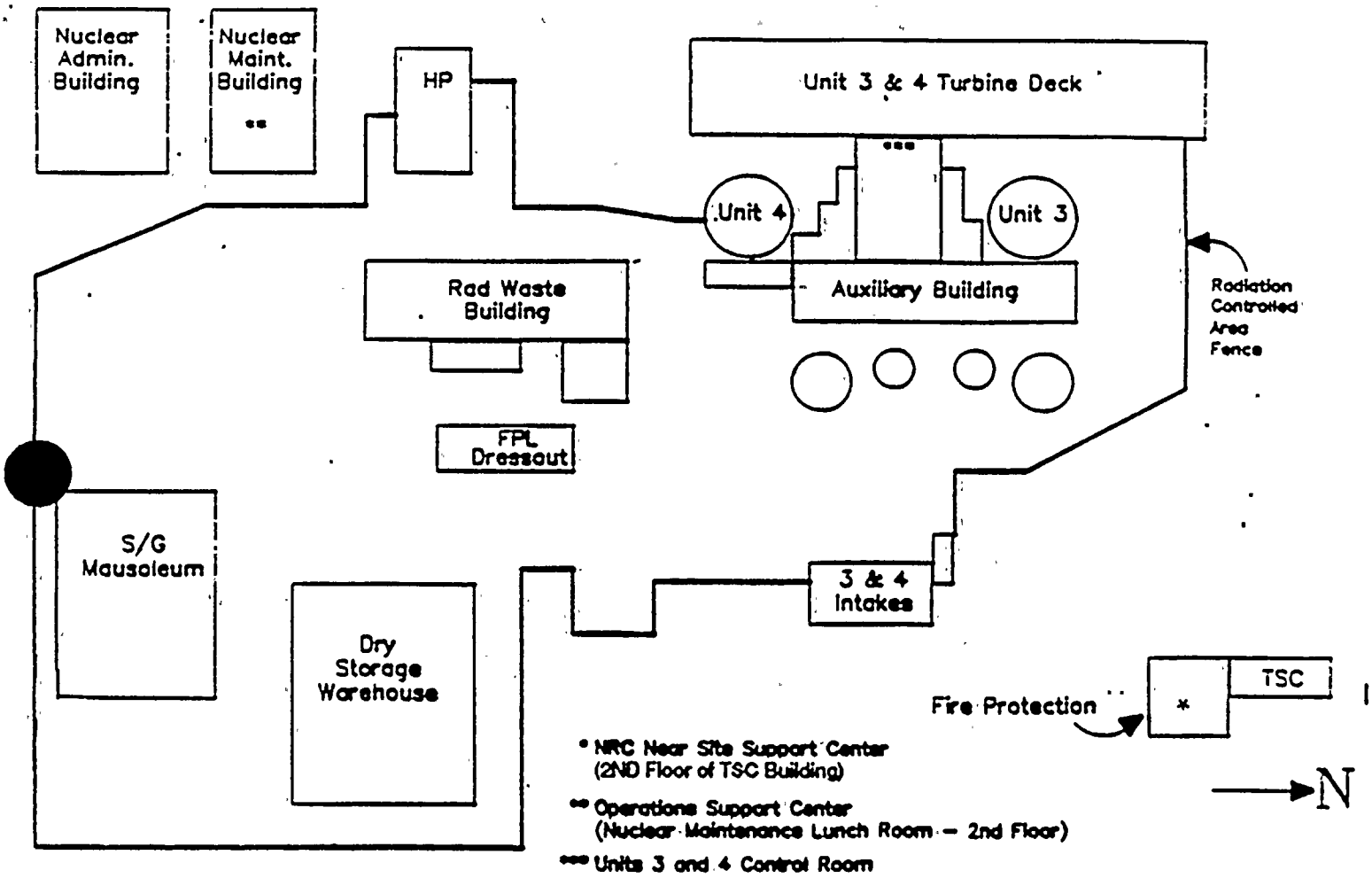


TABLE 2-3
ONSITE EMERGENCY RESPONSE FACILITIES EMERGENCY EQUIPMENT

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, typically every sixty minutes, upon significant change in plant conditions, or as agreed to with State, County and Federal agencies.*

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 typically every sixty minutes, upon significant change in plant status or as agreed to with State, County and Federal agencies.*

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 typically every sixty minutes, upon significant change in plant status or as agreed to with State, County and Federal agencies.*

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, typically every sixty minutes, upon significant change in plant status or as agreed to with State, County and Federal agencies.*

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. 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.

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.*

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

2. Primary Leakage/LOCA			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
Plant in Mode 1-2-3-4 AND 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, OR 2) Identified RCS Leakage greater than ten (10) gpm, OR 3) RCS Pressure Isolation Valve Leakage greater than allowable, OR 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 AND RCS leakage > 50 gpm AND 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 AND RCS leakage > 50gpm AND 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 > 50gpm AND RCS leakage greater than available charging pump capacity AND 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, AND RCS leakage > 50 gpm AND RCS leakage greater than available charging pump capacity AND 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

3. Steam Generator Tube Leak/Rupture			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
Either A or B: A Greater than 500 gpd steam generator tube leakage to any one steam generator per Technical Specification 3.4 6.2, Reactor Coolant System - B Greater than 1 gpm total steam generator tube leakage per Technical Specification 3.4.6 2, Reactor Coolant System	Either A or B: A. Confirmed steam generator tube leakage >50 gpm AND Steam generator tube leakage within available charging pump capacity AND Loss of offsite power - B. Steam generator tube leakage greater than available charging pump capacity.	Steam generator tube leakage greater than available charging pump capacity AND Loss of offsite power CAUTION: *Consult Figure 5-1 for possible Protective Action Recommendations*	
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**
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 AND Evidence of significant (> 10 gpm) steam generator tube leakage in the affected steam generator.	Steamline or feedline break which results in Safety Injection actuation AND Confirmed RCS DEQ I-131 activity ≥ 300 µCi/gm AND Confirmed steam generator tube leakage > 50 gpm in the affected steam generator CAUTION: Consult Figure 5-1 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	

5. Abnormal RCS Temperature and/or Pressure			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
Plant in Mode 1 - 2 - 3 - 4: **AND** Either A, B, or C 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			

6. Fuel Handling Accident			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
	A spent fuel element has been dropped or damaged AND Release of radioactivity from the damaged spent fuel element has been detected.	Either A, B or C: A. Major damage to one or more spent fuel elements has occurred AND Affected area radiation monitors are $> 10^3$ mR/hr. - B. Major damage to one or more spent fuel elements has occurred AND Containment radiation levels > 1.3 E4 Rem/hr - C. Major damage to one or more spent fuel elements due to water level being below top of spent fuel.	
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	

7. Loss of Safe Shutdown Functions/ATWS			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
	Either A, B, C or D: A. Reactor critical AND Failure of the Reactor Protection System to initiate a trip signal when a trip setpoint has been exceeded. B. Reactor critical AND Reactor fails to trip on automatic signal C. Reactor critical AND Reactor fails to trip on manual signal D. RCS temperature increasing due to loss of decay heat removal capability from all of the following: 1) RHR system AND 2) Forced RCS circulation AND 3) Natural RCS circulation	Either A, B, C or D: A. Inability to bring the reactor subcritical with control rods B. Plant in Mode 1-2-3 AND Loss of steam release capability from all of the following: 1) Condenser steam dumps AND 2) Atmospheric steam dumps AND 3) All steam generator safeties C. Plant in Mode 1-2-3 AND Loss of secondary heat sink has occurred AND RCS bleed and feed is required. D. Plant in Mode 1-2-3 AND RCS injection capability has been lost from: 1) Charging pumps AND 2) High-head SI pumps	Either A or B: A. Inability to bring the reactor subcritical AND RCS pressure > 2485 psig B. Inability to bring the reactor subcritical AND Containment pressure ≥ 4 psig CAUTION: Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			

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	Either A, B or C: A. Confirmed RCS DEQ I-131 activity ≥ 300 µCi/gm. B. An increase of > 1% fuel failure in 30 minutes. C. Total fuel failure of 5%.	Fuel element failure as indicated by A, B, or C: A. Confirmed RCS DEQ I-131 activity ≥ 300 µCi/gm. AND RCS T_{hot} > 620°F. B. Confirmed RCS DEQ I-131 activity ≥ 300 µCi/gm. AND Core exit thermocouples > 700°F. C. Containment high range radiation monitor reading > 1.3 E4 Rem/hr.	Fuel element failure as defined in Site Area Emergency of this section AND Any of the following is imminent or in progress: 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 CAUTION: Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			
	PRMS R-20 ARMS R-1 through R-6	Core Exit Thermocouples RI-6311A RI-6311B	

9. Uncontrolled Effluent Release

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B: A. Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas. NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations B. Technical Specification 3.11 limits for liquid release. NOTE: Direct Chemistry to perform release calculation in accordance with Offsite Dose Calculation Manual.	A release to the Unrestricted Area has occurred or is in progress which exceeds either A or B: A. Ten times Technical Specification 3.11 limits for gaseous release per 3/4-ONOP-067, Inadvertent Release of Radioactive Gas. NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations. B. Ten times Technical Specification 3.11 limits for liquid release. NOTE: Direct Chemistry to perform offsite dose estimates per EPIP-20126, Offsite Dose Calculations.	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: A. $\geq$50 mrem/hr total whole body for 1/2 hour B. $\geq$250 mrem/hr thyroid for 1/2 hour C. $\geq$500 mrem/hr total whole body for 2 minutes D. $\geq$2500 mrem/hr thyroid for 2 minutes NOTE: Site boundary equals 1 mile radius from affected unit. CAUTIONS: Consult Figure 5.1 for required protective action recommendations	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. A. $\geq$1000 mrem/hr total whole body dose B. $\geq$1000 mrem integrated total whole body dose C. $\geq$5000 mrem/hr thyroid D. $\geq$5000 mrem integrated thyroid dose NOTE: Site boundary equals 1 mile radius from affected unit. CAUTIONS: Consult Figure 5.1 for required protective action recommendations
Possible Control Room Indicators			

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

11. Other Plant Conditions That Could Lead To Substantial Core Damage			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
			Either A or B: A. Potential core damage indicated by all of the following: 1) Known LOCA greater than available charging pump capacity AND 2) Failure of ECCS to deliver flow to the core AND 3) Containment High Range Radiation Monitor reading > 1.3 E4 Rem/hr. - B. Potential core damage indicated by all of the following: 1) Loss of secondary heat sink AND 2) RCS bleed and feed required AND 3) No high-head SI flow available AND 4) No RHR flow for greater than 30 minutes AND 5) No AFW flow for greater than 30 minutes CAUTION: Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			

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

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			

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 Mode1-2-3-4: 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			

15. Natural Phenomena			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
Plant in Mode 1-2-3-4 AND either A, B, C or D: A. Confirmed hurricane warning OR B Confirmed tornado in owner controlled area OR C. Any earthquake detected onsite OR D. Hurricane/flood surge that prevents land access to the site	Plant in any mode including defueled. AND either A, B, C or D: NOTE: 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 OR B. Tornado striking any power block structure OR C. Earthquake that could cause or has caused trip of the turbine generator or reactor OR D. Hurricane/flood surge that raises water level > 18 feet above MLW	Plant in Mode 1-2-3-4 AND either A, B or C: NOTE: 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 AND the unit not expected to be in cold shutdown prior to the projected onset of hurricane force winds OR B. Earthquake has caused loss of any safety system function OR 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 CAUTION: 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**
Safety of nuclear plant or personnel threatened by either A, B, C, D, or E: A. Aircraft crash onsite B. Unusual aircraft activity over facility C Toxic or flammable gas release D. Turbine generator rotating component failure requiring rapid turbine shutdown E. Onsite explosion NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas.	Either A, B or C: 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): 1) Aircraft crash OR 2) Missile impact OR 3) Explosion NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas. B. Toxic or flammable gas release which threatens plant operation. C. Turbine generator failure resulting in casing penetration.	Either A or B: 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): 1) Aircraft crash OR 2) Missile impact OR 3) Explosion NOTE: Explosion is defined as a rapid chemical reaction resulting in noise, heat, and the rapid expansion of gas. B. Toxic or flammable gas release into control or vital areas which renders one train of safety related systems inoperable.	
Possible Control Room Indicators			

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. CAUTION: Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			

18. Control Room Evacuation			
UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	Control Room evacuation anticipated or required	Control Room has been evacuated AND Local control of shutdown systems has NOT 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 AND 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. CAUTION: Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			

20. Loss of Engineered Safety Features/Fire Protection			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
Power reduction started in accordance with Technical Specifications due to either: 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. NOTE: Notify Fire Protection Department to consult FSAR Section 9.6, for further guidance on fire protection system requirements			
Possible Control Room Indicators			

21. Other Plant Conditions Requiring Increased Awareness (Emergency Coordinator's Judgment)			
UNUSUAL EVENT	**ALERT**	**SITE AREA EMERGENCY**	**GENERAL EMERGENCY**
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. NOTE: Activation of the Emergency Response Facilities does not require declaration of an emergency or entry into a specific emergency classification	Emergency Coordinator's judgment that other plant conditions exist which warrant the increased awareness and activation of emergency response personnel.	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. (Reflects conditions where some significant releases are likely or are occurring but where a core melt situation is not indicated based on current information)	Emergency Coordinator's judgment that other plant conditions exist which make release of large amounts of radioactivity, in a short period of time, possible (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.) CAUTION. Consult Figure 5-1 for required Protective Action Recommendations
Possible Control Room Indicators			

TABLE 3-2

PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT

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

TABLE 3-2

PROCESS AND EFFLUENT RADIATION MONITORS USED FOR ACCIDENT ASSESSMENT

MONITOR	TYPE	MEASUREMENT	SETPOINT SETTINGS
Reactor Coolant Letdown Line Activity Monitors (R3-20 R4-20)	GM Tube Thin Wall	0 to 1×10^5 mR/hr	5×10^2 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)

	RANGE	ALARM SETPOINTS
RI-6311A GM Tube	1 to 1 x 10^{8} R/hr	High 1.3 x 10^{4} R/hr, High High 1.3 x 10^{5} R/hr
RI-6311B GM Tube	1 to 1 x 10^{8} R/hr	High 1.3 x 10^{4} R/hr, High High 1.3 x 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

INSTRUMENTATION	RANGE	NORMAL RANGE
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.)

INSTRUMENTATION	RANGE	NORMAL RANGE
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)	$0 - 4 \times 10^6$ lbs/hr	$0.5 - 3.3 \times 10^6$ lbs/hr
Steam Generator Feed Flow (FT-*-476 477, 486, 487, 496, 497)	$0 - 4 \times 10^6$ lbs/hr	$0.5 - 3.3 \times 10^6$ lbs/hr

TABLE 3-4

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

INSTRUMENTATION	RANGE	NORMAL RANGE
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_2O to 20" H_2O
Containment Pressure Wide Range (PT-*-6306 A, B)	0 - 180 psig	0 - 2 psig
Containment Temperature (TE-6700/1/2-*)	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.)

INSTRUMENTATION	RANGE	NORMAL RANGE
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 1-2 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, the Nuclear Plant Supervisor 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), via the Duty Call Supervisor or the Nuclear Division Duty Officer (NDDO). 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:

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

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-authenicating.

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/facilities:

1) ***FPL Onsite Emergency Response Organization/Control Room or Technical Support Center***

   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/Emergency Operations Facility***

   Primary: *Recovery Manager*

   1. *Site Vice President*
   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, Plantation Key***

   Primary: *Monroe County Office of Civil Defense Director*

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

TABLE 4-2

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	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 MESSAGES REFER TO RADIUS, USE THE WORD "ALL" UNDER SECTORS.)

MILES	NO ACTION	SHELTER/SECTORS	EVACUATE/SECTORS
0-2	_____	_____	_____
2-5	_____	_____	_____
5-10	_____	_____	_____
10-_	_____	_____	_____

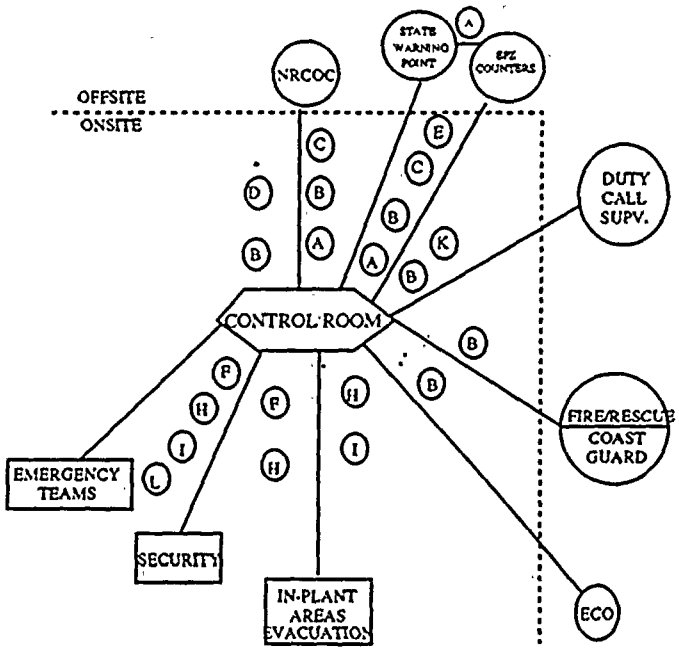
13. EVENT TERMINATED: A. NO _____ B. YES TIME _____ DATE _____

14. MESSAGE RECEIVED BY: NAME _____ TIME _____ DATE _____

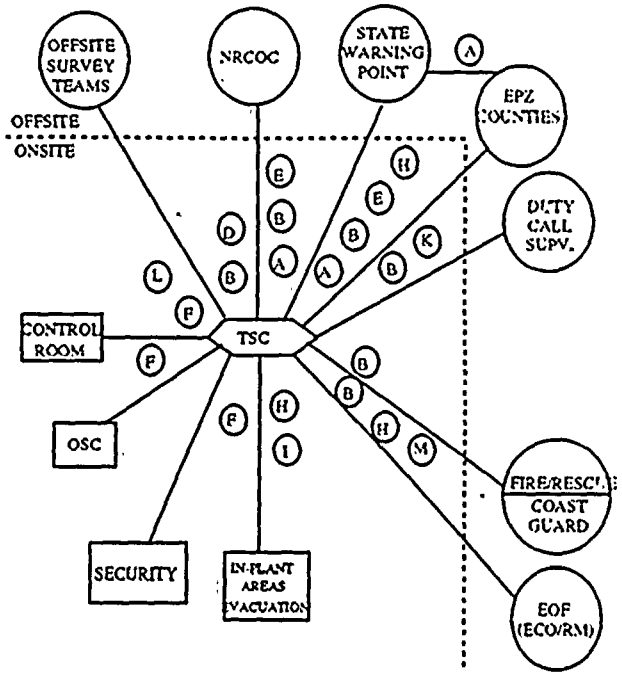
FIGURE 4-1

COMMUNICATIONS INTERFACES

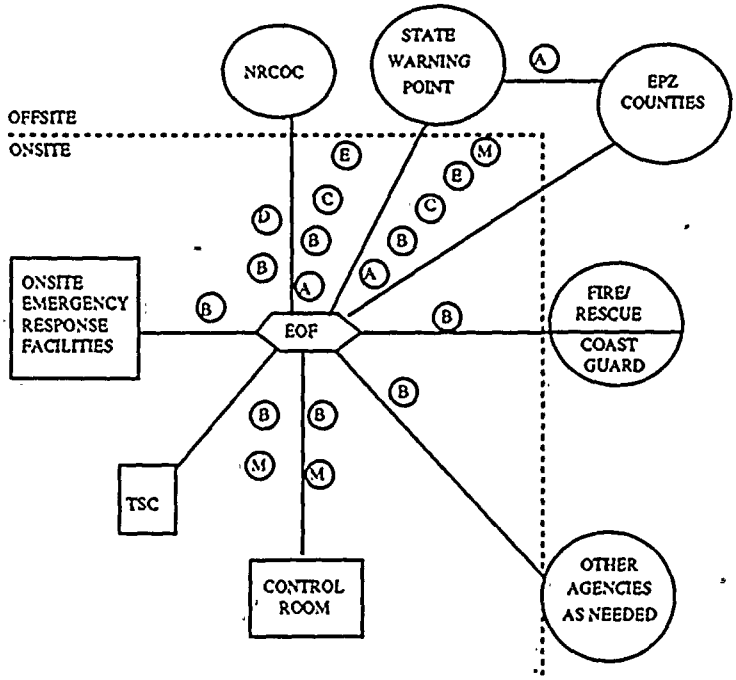
CONTROL ROOM (PRIOR TO TSC ACTIVATION)



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
J	HAFB PHONE
K	PAGER
L	HAND HELD RADIOS
M	COMPANY FM RADIOS

FPL responsibility for communication with offsite agencies is transferred from the Emergency Coordinator to the Recovery Manager when the Recovery Manager 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/she 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 and Monroe County Sheriff's Office. 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/she 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 operational), and the EOF (if operational).

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 a variety of fixed base radio equipment. The System Operations Power Coordinator's office, trouble dispatcher offices, service centers, power plants and mobile service vehicles are equipped with one or more of these radio systems.

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 lies. 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 through the plant vent:

- *Containment purge system (both containments).*
- *Gas decay tanks.*
- *Auxiliary building ventilation system.*
- *Unit 4 spent fuel pit ventilation.*
- *Rad-waste building ventilation system.*
- *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. Offsite analysis 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 the National Weather Service at Miami International Airport. 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 or by Health Physics in the Emergency Operations Facility (if operational) 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

SOURCE	DATA	DISPLAY
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

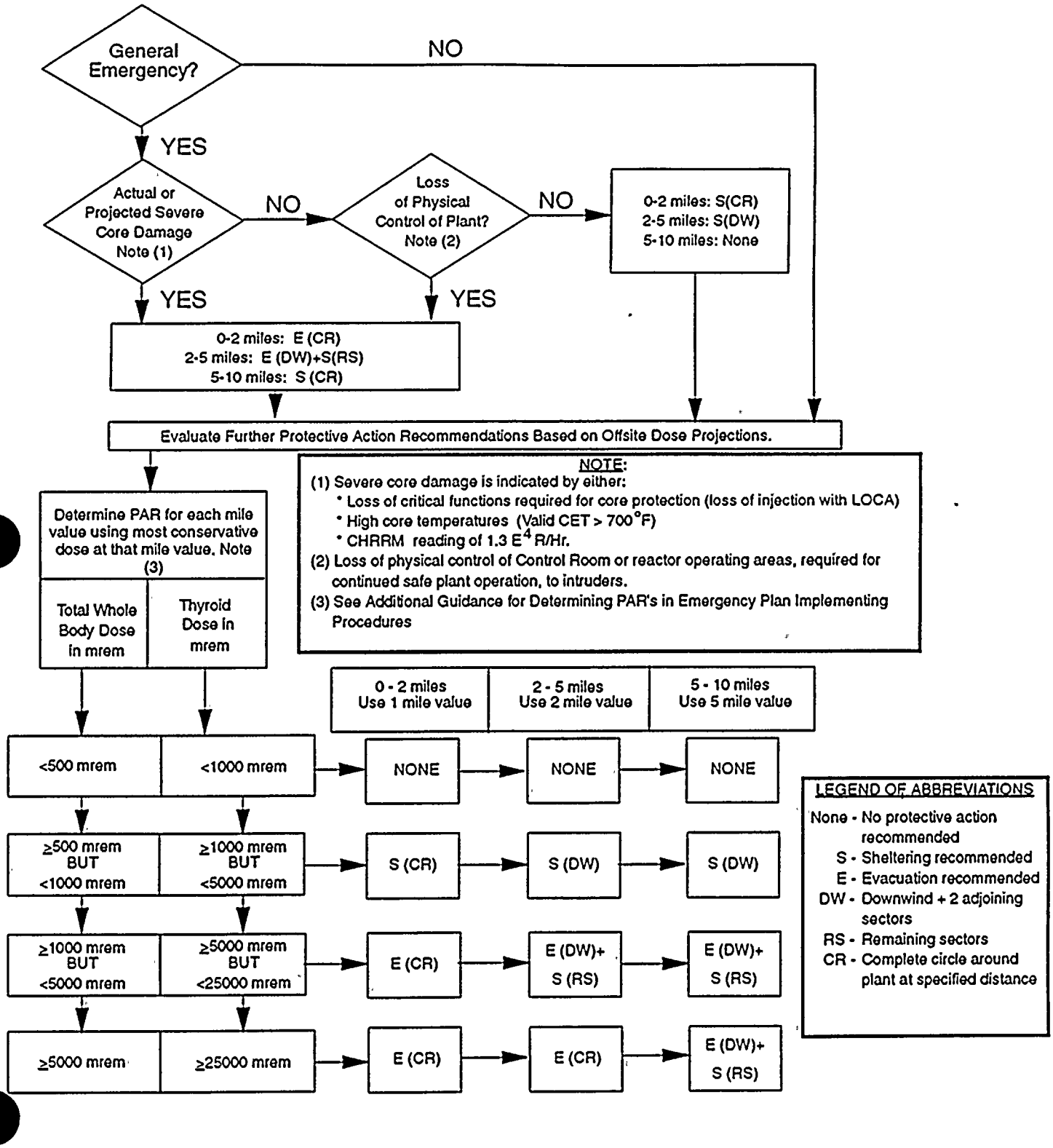
TABLE 5-2

SOURCES OF METEOROLOGICAL DATA

METEOROLOGICAL PARAMETER	PRIMARY SOURCE	FIRST BACKUP	SECOND BACKUP
Atmospheric Stability	Delta T (South Dade Site Tower)	Sigma-Theta (Turkey Point Land Management 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

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

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 I 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 I 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.

Annex H 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/she 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 four 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) *Mercy Hospital - Contaminated Injury Treatment Room. For interim use to treat severly injured personnel. Located approximately 30 miles north of Turkey Point Plant.*

4) *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.

Section XIIE of Annex Q 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 meteorlogical 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.

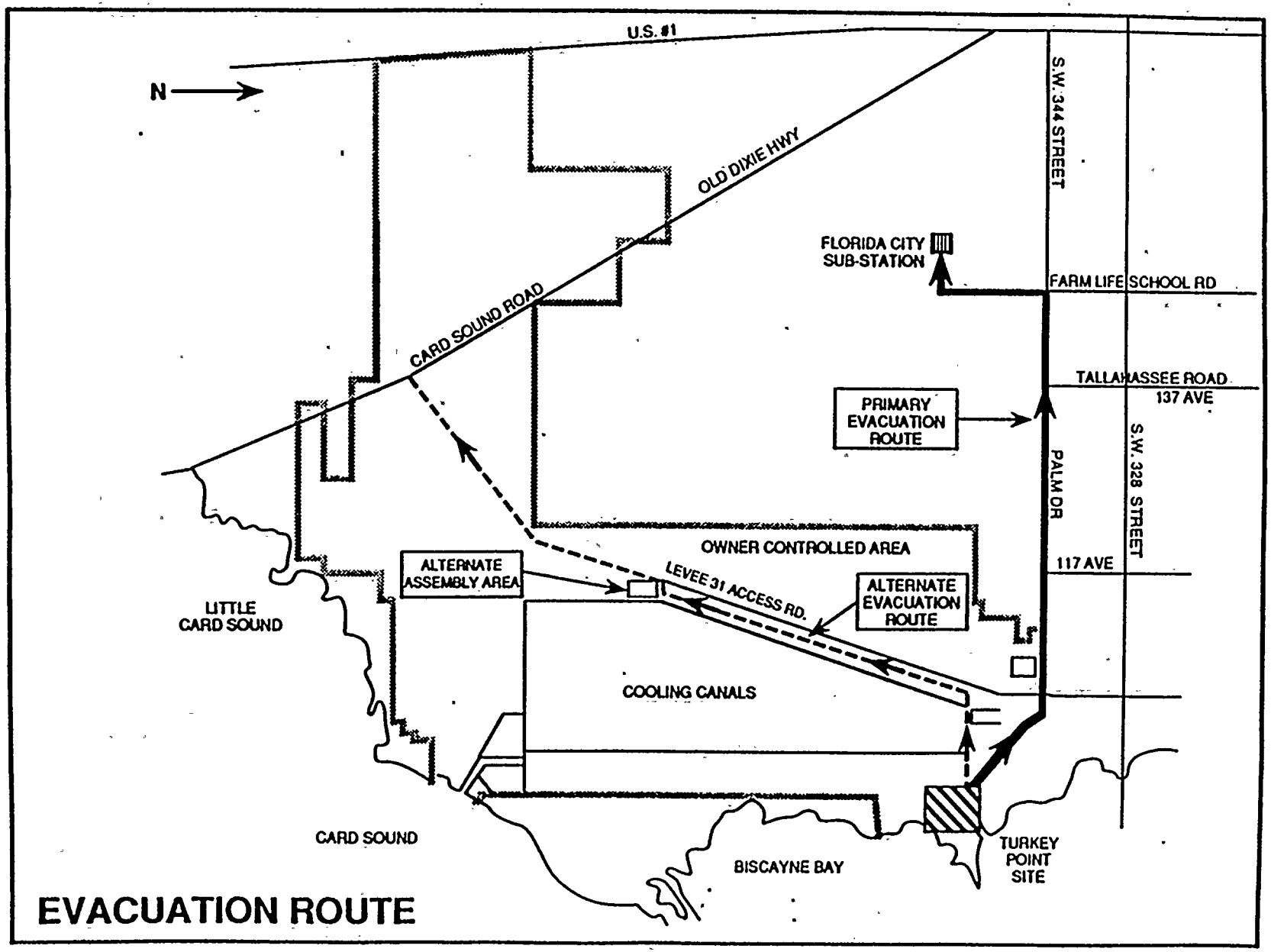


FIGURE 5-2
SITE EVACUATION ROUTES

TABLE 5-3

TYPICAL POPULATION WITHIN THE OWNER CONTROLLED AREA

AREA	POPULATION	COMMENTS
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	1887	

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. Descriptions of 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 actions which are automatically triggered upon the occurrence of designated emergency classifications. These are discussed in Annex D and E 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 to alert the public.

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 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

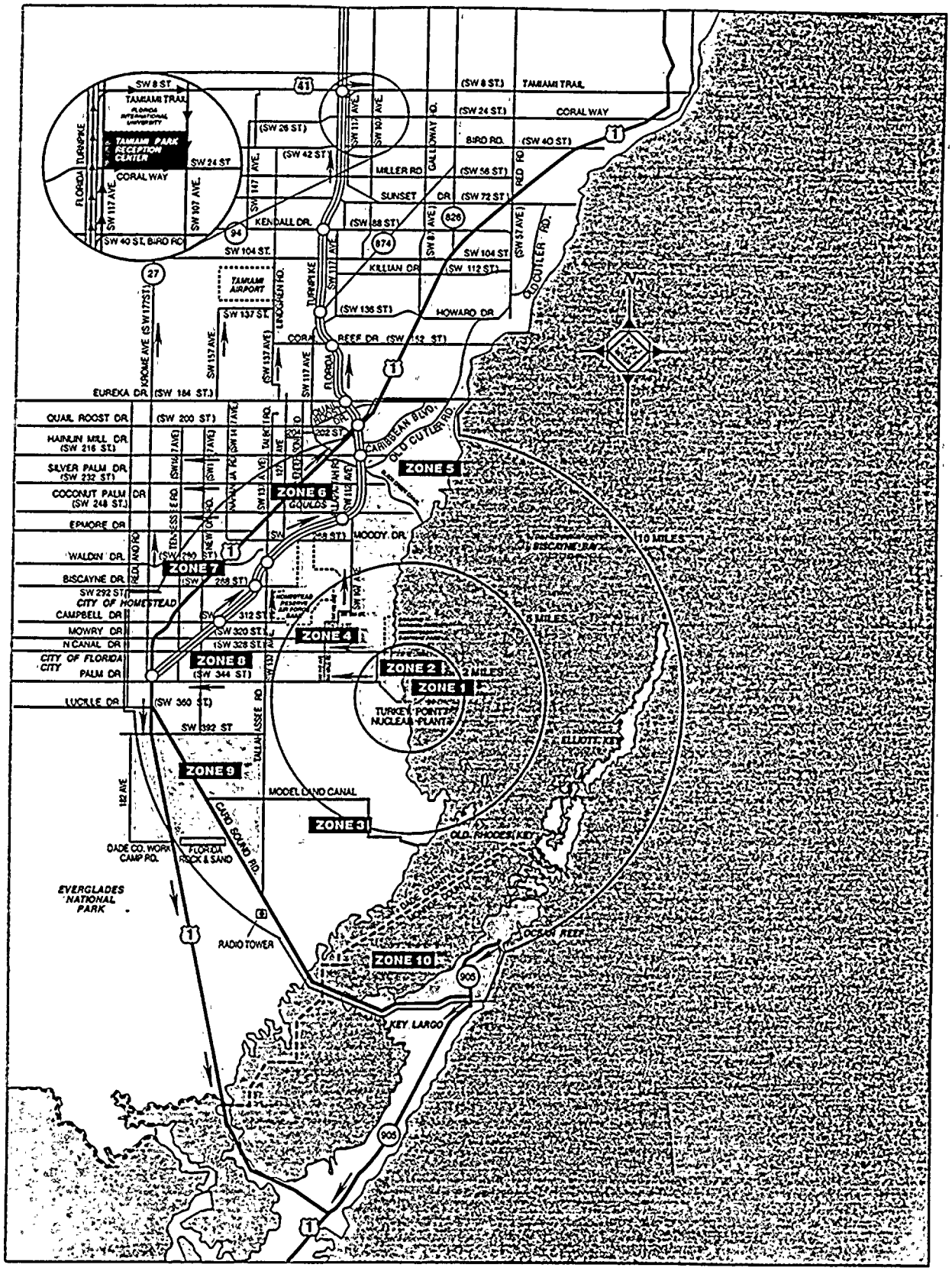
EVACUATION TIME AND TRAFFIC CAPICITY ESTIMATES

COUNTY AFFECTED	APPLICABLE SECTORS	ESTIMATED NUMBER 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 & 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 On-Site Radiation Protection Program

An objective of emergency response is to minimize radiation exposure to individuals both on-site and off-site. 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.

Every effort shall be made to maintain exposures to the emergency response personnel ALARA and within the limits identified in 10 CFR 20.

Conditions may warrant re-entry into high radiation areas leading to exposure in excess of the regulatory limit. Except for rescue of personnel, life-saving only, authorization must be given in advance by the Emergency Coordinator (EC) in consultation with the TSC HP Supervisor/Emergency Radiation Team Leader (or alternates). If time permits, the EC should obtain concurrence from the Recovery Manager (if the EOF is operational). In any case where regulatory limits have been exceeded, the EC shall notify the RM of the event.

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

Re-entry personnel that have been selected/chosen to exceed regulatory exposure limits should be volunteers, broadly familiar with the risks involved (radiosensitivity of fetuses, effects of acute exposures, etc.), and whose normal duties have trained them for such missions.

Declared pregnant adults should not be used as on-site emergency workers.

Since by its very nature emergency exposures requiring immediate action are not planned, they are not controlled as a Planned Special Exposure (PSE). However, dose received during emergencies is deductible from the PSE limit. Also, exposures above regulatory limits will require reporting pursuant to 10 CFR 20.2203.

For the following missions,[1] the exposure limit is:	*WB[2]*	*THYROID[3]*
Performance of actions that would not directly mitigate the event, minimize escalation, or minimize effluent releases. (Limits should include current annual.)	*5 REM*	*50 REM*
Performance of actions that mitigate the escalation of the event, rescue persons from a non-life threatening situation, minimize exposures or minimize effluent releases.	*10 REM*	*100 REM*
Performance of actions that decrease the severity of the event or terminate the processes causing the event in an attempt to control effluent releases to avoid extensive exposure of large populations. Also rescue of persons from a life-threatening situation should be by volunteers under the age of 45.	*25 REM*	*250 REM*
Rescue of persons from a life -threatening situation. (Volunteers (see note 4) above the age of 45 are preferred)	*(5)*	*(5)*

NOTE 1:	*Both total whole body (WB) and thyroid dose should be used for purposes of controlling exposure.*

NOTE 2:	*Protective clothing, including respirators should be used where appropriate.*

[1]Exposure limits to the lens of the eye are 3 time the total whole body exposure values listed.

[2] WB is the total whole body exposure from both external and internal (weighted) sources - Total Effective Dose Equivalent.

[3] Thyroid dose commitment from both external and internal sources - Total Organ Dose Equivalent. The same dose limits also apply to other organs, skin and extremities.

[4] Volunteers with full awareness of risks involved including numerical levels of dose at which acute effects of radiation will be incurred and numerical estimates of the risk of delayed effects.

[5] No upper limit for total whole body and/or thyroid exposure has been established because it is not possible to pre-judge the risks that one person should be allowed to take to save the life of another. Also, no specific limit is given for thyroid exposure since in the extreme case, complete thyroid loss might be acceptable sacrifice for a life saved. This should not be necessary if respirators and/or thyroid protection for rescue personnel are available as the result of adequate planning.

The radiation exposure of individuals providing ambulance service and medical treatment service will be kept as low as reasonably achievable. Proper precautions will be taken to assure that these individuals' exposures 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 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/she will be responsible for coordinating dissemination of information to the public via the news media. Insofar as practical, he/she will work with the NRC, state, and local news media representatives to effect joint releases and public appearances. He/she 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/she 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) *Accredit 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.*

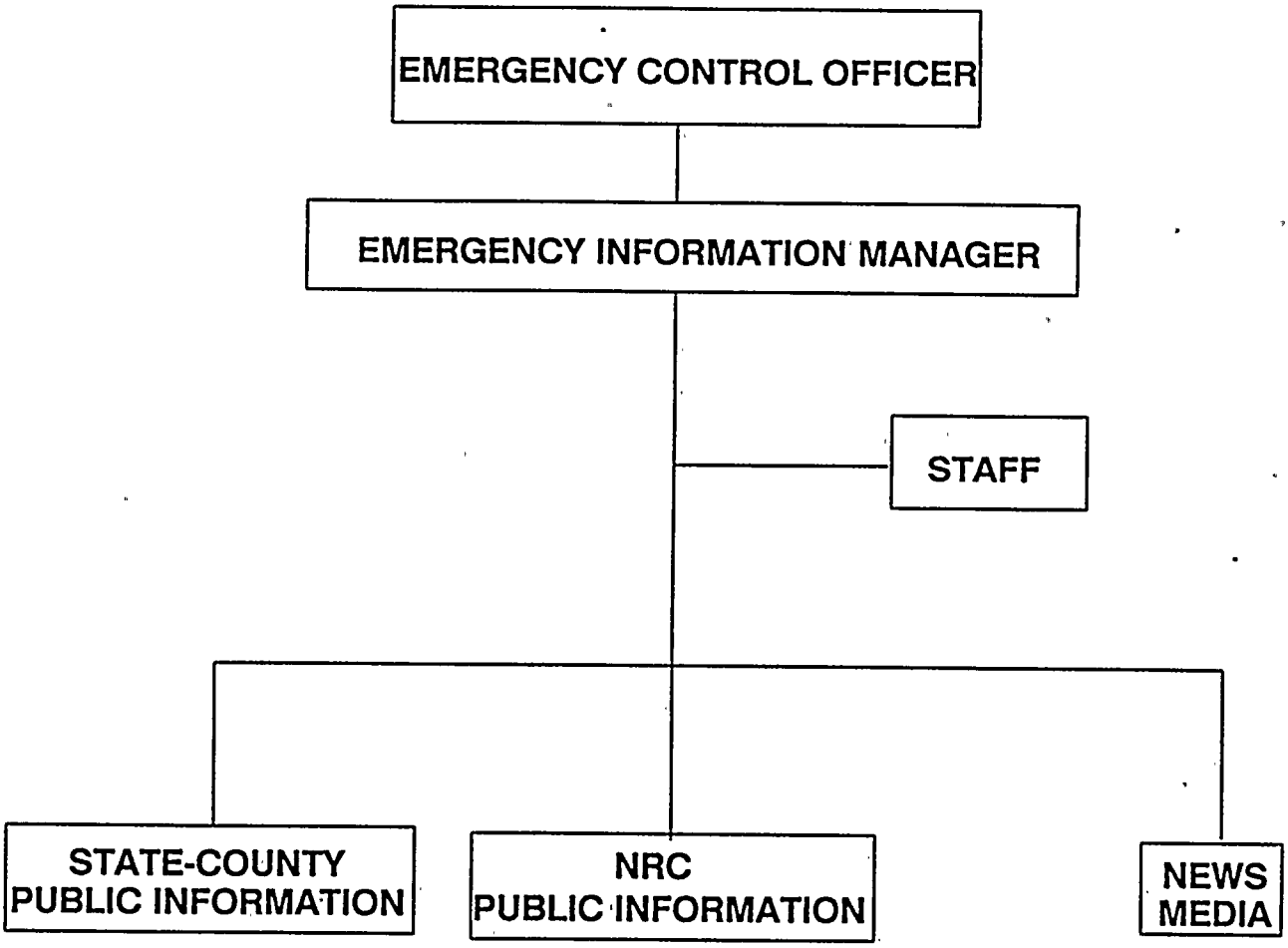
The staff of the Florida Power & Light Company Corporate Communications Department may be augmented by personnel from other utilities, consultants, or universities.

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/her 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:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St.
Miami, FL 33102
Phone: 305/552-4506

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 6-2

INITIAL FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St./Miami, FL 33102
Phone: 305/552-4506

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 radiaton 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 6-3
INITIAL FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 West Flagler St./Miami, FL 33102
Phone: 305/552-4506

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.

Plant 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.

(Option 1 - no radiation release)

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 #__. 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 6-4
INITIAL FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St.
Miami, FL 33102
Phone: 305/552-4506

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).

# # #

TABLE 6-5
FOLLOW-UP FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St.
Miami, FL 33102
Phone: 305/552-4506

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 6-6
FOLLOW-UP FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St.
Miami, FL 33102
Phone: 305/552-4506

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 6-7
FOLLOW-UP FPL STATEMENT (Sample)

Number:

Date:

Time:

Florida Power & Light Company
Emergency News Center
9250 W. Flagler St.
Miami, FL 33102
Phone: 305/552-4506

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 305-552-4506. (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 I-800-342-3557 for the State Division of Emergency Management and 596-8735 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 Coordinator 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) *Coordinate all FPL efforts with other participating personnel, organizations, and agencies.*

3) *Offer federal, state, and local officials the opportunity to observe the exercise.*

When an exercise or a major drill is to be conducted, the Services Manager (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 plant and corporate management.*

8) *Retain corrective actions and their resolutions for record keeping.*

The Services Manager may delegate any of these responsibilities to the Emergency Preparedness Coordinator 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 documentating 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 Coordinator. 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 Coordinator.

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 Divison 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 Coordinator (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

August 19, 1993

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-93-0043 Job No. 15841 Files: 0110

Reference: FPL Letter JNO-EP-92-099, dated July 2, 1993

Dear Mr. Casto:

This letter summarizes Bechtel's commitment 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 employees 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 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, or Mr. A. L. Aldridge at Turkey Point.

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 407-694-8406.

Sincerely,

J. A. Ivany
Project Manager

JAI:smh

Enclosure: Exhibit A-3, Revised 8/93

cc: J. B. Hosmer w/1
B. D. Guilbeault w/1
R. Sipos w/1

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 INPO and Florida Power & Light Company and confirm that the current letter of agreement, dated July 7, 1992 still applies as written.

Signature

7/12/93
Date

INPO

Institute of
Nuclear Power
Operations

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

July 14, 1993

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

Dear Mr. Casto:

Attached is the signed confirmation you requested. As stated, in the event of an emergency at your facility, INPO will assist in acquiring the help of other organizations in the industry, as described in Section 1 of INPO's 86-032, *Emergency Resources Manual*. In addition, INPO will provide assistance by utilizing its own resources, as requested and as appropriate.

This agreement will remain in effect until terminated in writing. Should you have any questions, please contact me at (404) 644-8365 or Donna Miller, staff assistant, Emergency Preparedness, at (404) 644-8646.

Sincerely,

Mark A. Peifer
Director
Corporate Support Division

MAP/DWM/cg

Attachment: As stated above

cc/wo: Mr. Frank J. Varona
Mr. Kenneth A. Strahm

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: 104
19 Jul 93

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 2 July 1993, the following updated information is provided. This update reflects no significant change from the information provided in our previous letter.

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 Ensign Dwayne Berry. He may be reached at (305) 536-5619.

The nearest Coast Guard facility to the 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 to 45 minutes.

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

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

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

3000
Ser: 104
19 Jul 93

If the need arises to obtain these support services, your first point of contact is the Seventh District Operations Center at (305) 536-5611 or 6841. This 24 hour manned response center has been provided a copy of this letter.

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 Robert L. Porter, Jr., 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

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

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES

FRED O. DICKINSON, III
Executive Director

LAWTON CHILES
JIM SMITH
BOB BUTTERWORTH
GERALD LEWIS
TOM GALLAGHER
BOB CRAWFORD
BETTY CASTOR

July 29, 1993

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 07/02/93, 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 question concerning these procedures, please contact Captain Van Fussell at (904) 488-5799.

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

Sincerely,

Nelda Parker
Business Manager III

NP:bam
Attachment
cc: Captain Van Fussell

Sheriff

RICHARD D. ROTH • SHERIFF OF MONROE COUNTY
530 WHITEHEAD STREET • KEY WEST, FLORIDA
(305) 296-2124 • FAX (305) 292-7070 • [illegible]

July 30, 1993

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

Dear Mr. Casto:

Please be advised that the current letter of support on file with F P & L is still in effect. Please let us know if we may do anything to assist F P & L in maintaining emergency preparedness.

Very truly yours,

Mark L. Willis
General Counsel

MLW/js

Freeman Station
101 1st Ave. W., Cudjoe Key, Florida 33042
(305) 745-3184 FAX (305) 745-3761

Marathon Station
3103 Overseas Hwy., Marathon, Florida 33050
(305) 289-2430 FAX (305) 289-2497

Spottswood Station
88770 Overseas Hwy., Tavernier, F[illegible]
(305) 853-3211-FAX (305) 853-3205

Metropolitan Dade County, Florida
Fire Department
6000 S.W. 87th Avenue
Miami, Florida 33173-1698
(305)596-8600

July 14, 1993

Mr. Greg A. Casto
Nuclear Emergency Preparedness
Nuclear Division JNO/JB
Florida Power & Light Company
P.O. Box 1400
Juno Beach, Florida 33408

Dear Mr. Casto:

Upon notification through emergency operators (911) of an incident at Florida Power & Light's Turkey Point Plant, the Metro-Dade Fire & Rescue Department will respond with dispatch of appropriate fire and rescue units. A typical assignment would include 6 suppression vehicles (1 aerial, 1 ladder and 4 pumpers), 2 rescue vehicles and 2 supervisory units. The normal complement 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 Edward C. Neafsey at (305) 596-8585.

Sincerely,

R.D. Paulison
Fire Chief

RDP/llp

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

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

The subject agreement for radiological assistance between DOE and Florida Power and Light Company dated 6/13/85, remains in affect. However, due to the age of the previous agreement, the DOE would like to update it. Enclosed is the updated agreement for your review and comments. It should be noted that the terms of the original agreement remain the same.

Requests 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 programmatic questions may be directed to Mr. Mark Askey of Westinghouse Savannah River Company at (803) 725-2944. Questions regarding DOE policy may be directed to Ms. Sherry L. Southern at (803) 725-4723.

Sincerely,

for Cynthia V. Anderson

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

EMB:GTP:plw

Enclosure

cc w/encl:
Mark Askey, WSRC, 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 May 29, 1992 still applies as written.

Signature

3-13-95
Date

BAPTIST HOSPITAL
OF MIAMI

July 14, 1993

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

Dear Mr. Casto:

Enclosed you will find the letter signed by me stating the current letter of agreement, dated May 29, 1992, still applies as written.

Also enclosed is a copy of the Radiation Emergency Medical Plan for Baptist Hospital of Miami updated in 1992.

If I can be of further assistance to you in any way, please contact me.

Sincerely,

H.Richard Nateman, M.D., Medical Director
Emergency Services

Enclosures

8900 North Kendall Drive
Miami, FL 33176-2197
(305) 596-1960

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 Stogemoller, M.D.
Ivan Montoya, M.D.
Jorge Amaya, M.D.
Javier Anton, M.D.

December 29, 1993

Mr. Fitch King
Florida Power and Light Company
P. O. Box 029100
Miami, FL 33102

Dear Mr. King:

I have reviewed the letter of agreement between Emergency Room Medical Associates and Florida Power & Light Company and confirm that the current letter of agreement, dated July 20, 1992 still applies as written.

Sincerely,

Kenneth Rosenthal M.D

Kenneth Rosenthal, M.D.

KR/nm

AD/disc 5

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 Stagemoller, 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 Facilit-- 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
Oak Ridge Field Office
P O Box 2001
Oak Ridge Tennessee 37831 -8610

July 23, 1993

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 July 2, 1993, 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 Institute for Science and Education (ORISE) 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 ORISE 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 REACT/TS Director, Dr. Robert C. Ricks, ORISE, Post Office Box 117, Oak Ridge, Tennessee 37831, or telephone number 615/576-3131.

When replying, please refer to 93-0873.

Sincerely,

Lynda H. McLaren

for Thomas M. Jelinek, Director
Energy Programs Division

ER-113:Cunningham

cc:
Robert C. Ricks, ORISE

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 B&W Nuclear Technologies and Florida Power & Light Company and confirm that the current letter of agreement, dated June 8, 1992 still applies as written.

Signature

1-13-93
Date

B&W NUCLEAR TECHNOLOGIES

3315 Old Forest Road
P.O. Box 10935
Lynchburg, VA 24506-0935
Telephone: 804-385-2000
Telecopy 804-385-3553

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:

		Office
Primary Contact	William F. Jones	(804) 385-3720
First Alternate	Donald C. Winterich	(804) 385-3519
Second Alternate	George B. Beam	(804) 385-3434

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

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,

Charles W Pryor Jr.

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

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