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UHRIG,R.E. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Office of Nuclear Reactor Regulation
EISENHUT,D.G. Division of Licensing

SUBJECT: Forwards proposed revision to emergency plan.Apps to be submitted under separate cover.Implementation to begin by 810101,depending on resource availability & final resolution of open issues.Plan withheld (ref Privacy Act).

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FLORIDA POWER & LIGHT COMPANY

June 19, 1980
L-80-195

Office of Nuclear Reactor Regulation
Attention: Mr. Darrell Eisenhut, Director
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Proposed Emergency Plan

A proposed revision to the Turkey Point Units 3 and 4 Emergency Plan is enclosed. The Appendices to the Emergency Plan will be submitted under separate cover. We plan to begin implementation by January 1, 1981, however, complete implementation will depend on the availability of essential resources (components, facilities, and manpower) and on the final resolution of several open issues (e.g., proposed rule, evacuation times, Emergency Offsite Facility requirements).

Review and refinement of the proposed Plan is continuing. Certain Tables and Figures are still under preparation and will be submitted at a later date. Further discussions with state and local officials may also result in revisions and additional submittals. Therefore, we have marked each page with the date of this letter in the lower right hand corner. As future submittals are made, revised pages will be identified to enable interested parties to maintain an updated copy of the Plan.

Very truly yours,

Robert E. Uhrig

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/paf

Enclosure

cc: J. P. O'Reilly, Region II
Harold F. Reis, Esquire

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NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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FROM: US NRC/TIDC/Distribution Services Branch

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NOTE TO NRC AND/OR LOCAL PUBLIC DOCUMENT ROOMS

The following item submitted with letter dated 6-19-80 from FPL is being withheld from public disclosure in accordance with Section 2.790.

PROPRIETARY INFORMATION

Proposed Emer. PLAN

Dow Lowlaw
016

Distribution Service's Branch

Superseded Pages Per Rev. 11 To
EMERGENCY PLAN 50-250
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TURKEY POINT PLANT

EMERGENCY PLAN

June, 1980

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6/16/80

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1. GENERAL INFORMATION

1.1 Purpose

This Emergency Plan contains Florida Power & Light Company's plans for coping with emergencies at the Turkey Point Plant, a combined fossil (Units 1 and 2) and nuclear (Units 3 and 4) facility 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 an emergency condition 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 on-site and off-site.

4) Continuing maintenance of an adequate state of emergency preparedness.

1.2 Definitions

Accident - Any unforeseen and unintentional occurrence or mishap resulting in, or potentially resulting in, a radiological health hazard.

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).

Corrective Actions - Those emergency 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 equpment, firefighting, repair and damage control.

County - Metropolitan Dade County, Florida.

Duty Call Supervisor - A designated supervisor assigned from the nuclear plant staff to provide 24-hour response to any off-normal operating condition, any emergency, or any problem upon notification by the nuclear plant supervisor. He is responsible for notifying the persons needed to correct the problem, and in case of emergency shall notify the off-site emergency organization, additional plant technical staff, and the primary emergency teams.

Emergency - Any situation that may result in undue risk to the health and safety of the public and/or site personnel.

Emergency Action Levels (EAL's) - A three-tier system used for classification of severity of emergencies. Upon occurrence of an event, the Emergency Coordinator classifies the emergency on the basis of in-plant indicators and the potential for release of radiation. Classifications are: Alert, Site Emergency, and General Emergency.

Emergency Control Officer (ECO) - A designated Corporate Officer who will have responsibility for directing the FPL expanded emergency response organization.

Emergency Coordinator (EC) - A designated Company on-site supervisor who will have responsibility for classifying an emergency and notifying off-site authorities, both inside and outside the Company.

Emergency Information Officer (EIO) - A designated Corporate Officer or Company Manager who will serve as the principal spokesman for the company.

Emergency Operations Center (EOC) - A designated off-site facility from which the Dade County and State of Florida Emergency Response Organization will direct necessary assessment and protective actions.

Emergency Operations Facility (EOF) - A designated near-site location from which emergency activities will be coordinated. This near-site Emergency Operations Facility will have available space for FPL emergency response personnel, and designated state, federal, local, and other emergency response groups.

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

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 and property in the event of an accident.

Emergency Procedures - (Emergency Plan Implementing Procedures) 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.

Emergency Response Organization - Designated individuals from within the normal Company organization who may cease normal activities and assume responsibility for augmenting FPL corrective, assessment, and protective actions in the event of an emergency.

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.

Off-Site - All property outside the Owner Controlled Area.

On-site - The Owner Controlled Area.

Operational Support Center (OSC) - A designated on-site facility to serve as an assembly point to which FPL operations support personnel can report and await assignment.

Plume Exposure Pathway - That area, approximately 10 miles in radius from the center of the Turkey Point Plant, for which plans are made to protect people from exposure to a plume containing radioactivity.

Plume Ingestion Pathway - That area, approximately 50 miles in radius from the center of the Turkey Point Plant, for which plans are made to protect people from radiation exposure originating from ingestion of contaminated plants, food-stuffs, and water.

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

Protective Actions - Those emergency measures taken (after an uncontrolled release of radioactive material has occurred) for the purpose of preventing or minimizing the radiologial exposure to persons that would be likely to occur if the actions were not taken.

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

Radiological Duty Officer - A designated member of the FPL General Office Power Resources staff with responsibility for responding to radiological emergencies or incidents on a 24 hour per day basis.

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

REEF - Radiation Emergency Evaluation Facility, a medical care organization which provides primary care staff and facilities at Mount Sinal Hospital in Miami Beach.

State - The State of Florida.

Technical Support Center (TSC) - A designated on-site facility that serves as a work area for use by technical and management personnel providing technical support to Control Room personnel.

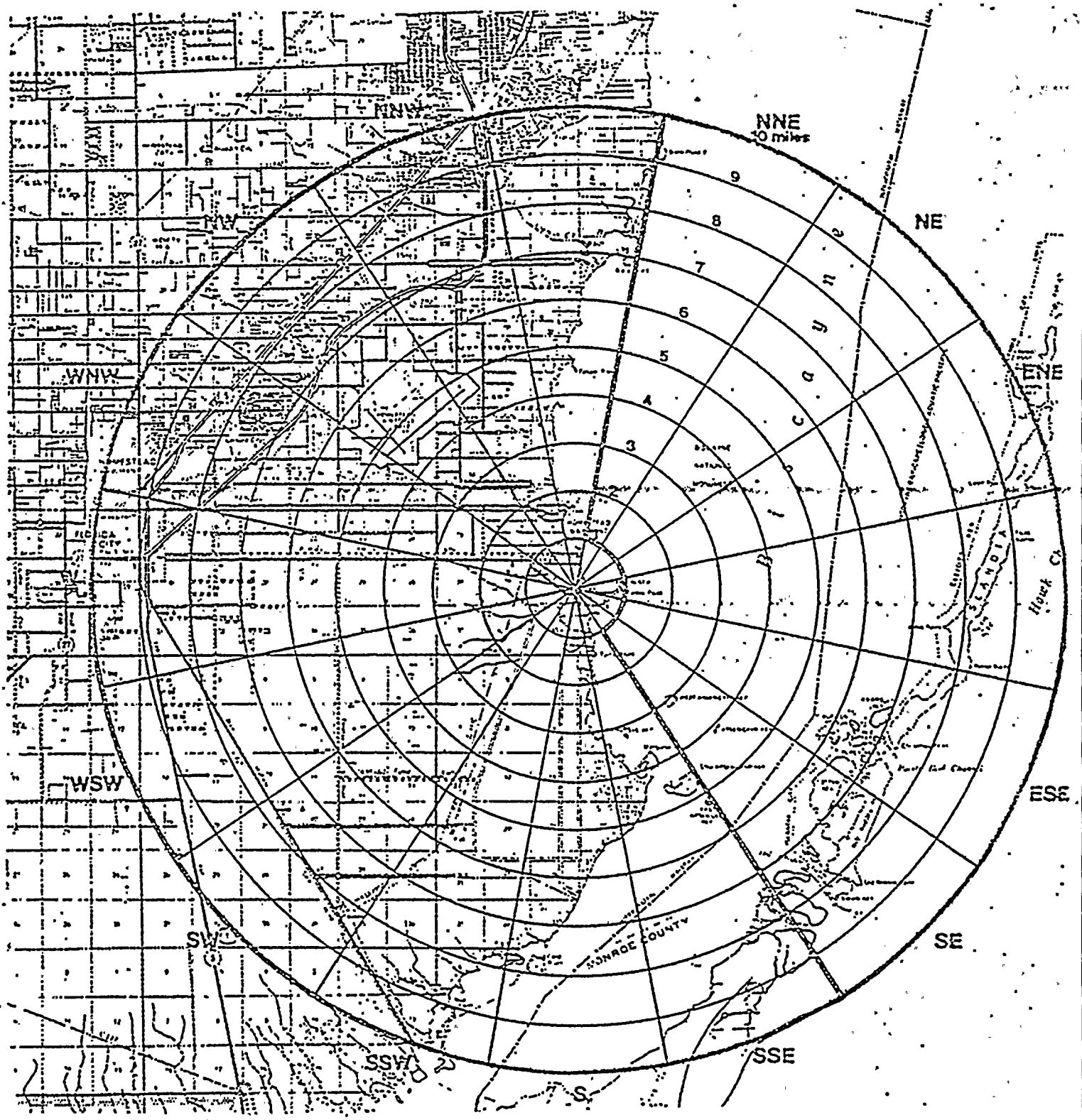
1.3 Scope and Applicability

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 10CFR50.34(b)(6)(v) and 10CFR50 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 have the potential to result in, the accidental release of radiation 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 10-mile 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.

FIGURE 1-1

10-MILE EMERGENCY PLANNING ZONE



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1.4 Concept of Operations

The Emergency Plan defines emergency conditions and delineates the responsibilities and duties of the FPL Emergency Response Organization. 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 event to its proper emergency classification (Chapter 3).

3) Notification of off-site authorities, as required, and continuing communications (Chapter 4).

4) Gathering and interpreting data to determine appropriate actions (Chapter 5).

5) Providing adequate information to the public both in terms of preparatory education and emergency response information (Chapter 6).

6) Maintaining FPL in a state of emergency preparedness (Chapter 7).

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

Emergencies have been separated into the following three classifications:

1) Alert.

2) Site Emergency.

3) General Emergency.

Each class is characterized by abnormal plant events detected by Control Room instrumentation and/or routine or directed surveillance activities.

The Company's response to emergency conditions is defined in terms of an immediate response and an expanded response to reflect 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 accident through the 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 emergency.

2) Corrective action.

3) Classification of the emergency.

4) Notification of appropriate FPL authorities.

5) Notification of appropriate off-site authorities.

During the expanded response phase, the Emergency Control Officer will assess the situation and expand the emergency response as necessary. All available company resources (on-site and off-site) can be mobilized as needed during this period. State, county and federal response organizations can become fully operational both near the site and in the Dade County Emergency Operations Center 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. Figure 1-3 summarizes the coordination and information flow for Florida Power & Light

Company's Emergency Response Organization, and Figure 1-4 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 on-site, if needed. The training program is designed to maintain the proficiency of the Emergency Response Organization.

TABLE 1-1

SEQUENCE OF ACTIONS

Detection of Off-Normal Condition

Time Period: Immediately upon detection.

Actions:

- Individual identifies off-normal condition.
- Individual notifies Nuclear Plant Supervisor (NPS).
- Nuclear Plant Supervisor becomes Emergency Coordinator (EC)

Immediate Response

Time Period: First few minutes through one hour.

Actions:

- NPS diagnoses condition and classifies it in accordance with plant procedures.
- NPS directs corrective action to control or mitigate the condition.
- If a Site Emergency or General Emergency Condition develops, the NPS will assume responsibility as Emergency Coordinator (EC).
- EC initiates necessary protective actions for on-site personnel.
- If a Site Emergency or a General Emergency condition is declared, the EC mobilizes on-site response teams as necessary to assess and control the emergency.
- EC notifies Duty Call Supervisor.

- Duty Call Supervisor notifies the Plant Manager and the off-site Emergency Control Officer (ECO). (If the ECO cannot be reached, the Radiological Duty Officer [RDO] is notified.)

- The ECO (or RDO) notifies other FPL staff as required and the Emergency Communications Director (ECD).

- EC notifies NRC via OPX communications link.

- EC notifies state and county via NAWAS and/or LGR.

- EC completes initial assessment and closes out with verbal summary to off-site authorities or prepares for expanded response.

Expanded Response

Time Period: After about one hour.

Actions:

- ECO mobilizes off-site response as necessary.

- ECO proceeds to General Office Emergency Center, the near-site Emergency Operations Facility, or the on-site Technical Support Center, as appropriate.

- EIO proceeds to the Emergency News Center if appropriate.

- ECO organizes response teams at EOF and TSC, as appropriate.

- ECO relieves the NPS of his off-site emergency response responsibilities (including communications with the state and county). The Nuclear Plant Supervisor can now devote himself to control of the power plant.

TABLE 1-1 (Sheet 3 of 3)
SEQUENCE OF ACTIONS

- ECO (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.

- Emergency News Center is operational and in contact with EOF to obtain information.

- ECO completes expanded assessment and closes out with verbal summary to off-site authorities or prepares for further long-term activities.

FIGURE 1-2

INITIAL NOTIFICATION FLOW

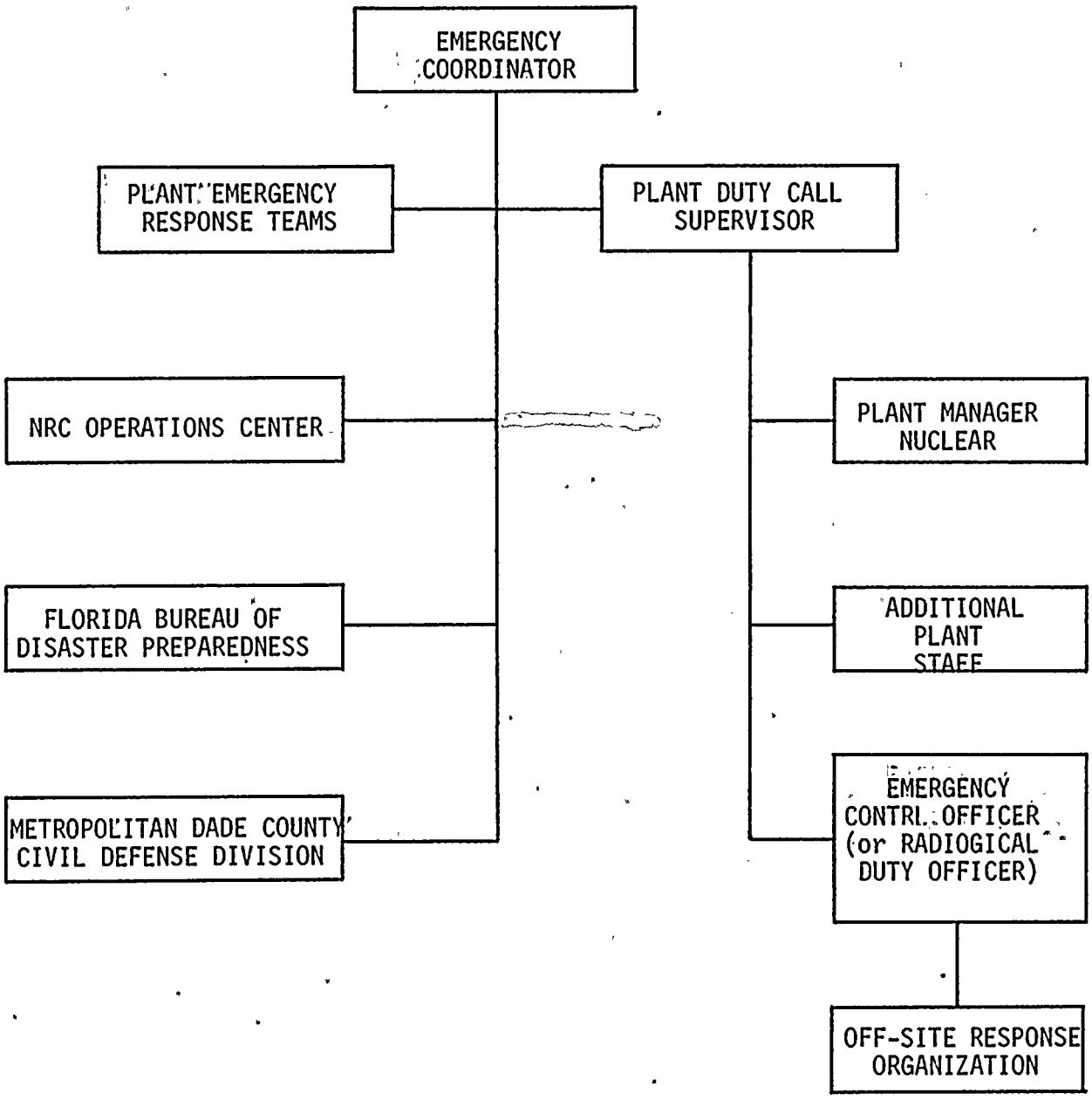

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FIGURE 1-3

COORDINATION AND INFORMATION FLOW

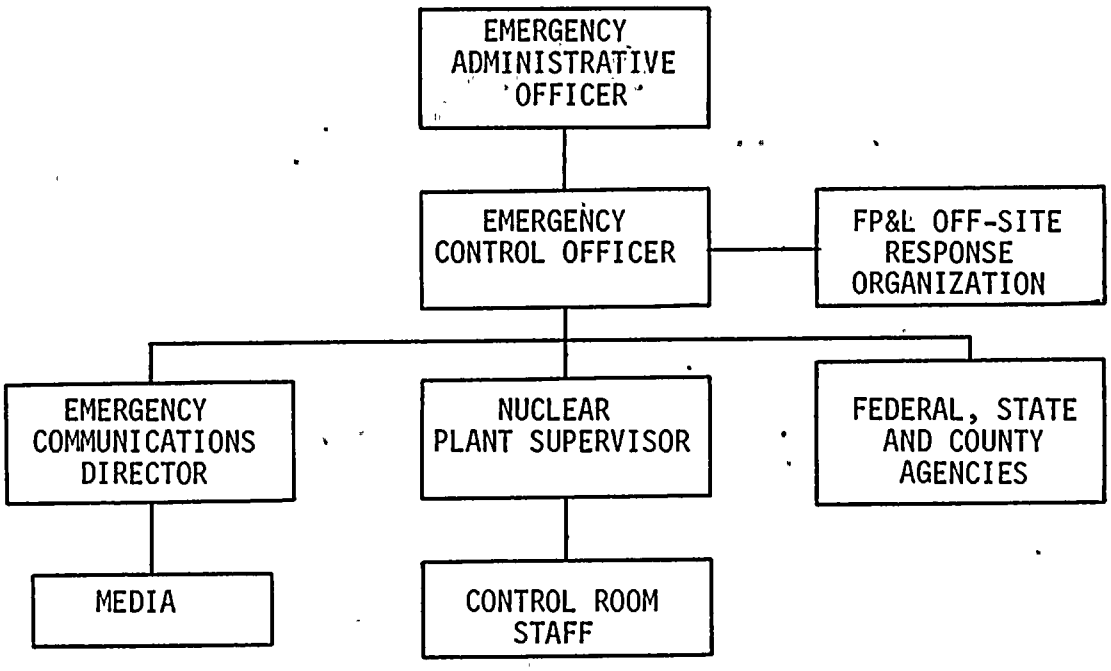

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FIGURE 1-4

STATE OF FLORIDA INFORMATION FLOW PATTERNS

(LATER)

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. Figure 2-1 illustrates these relationships.

2.1.1 Florida Power & Light Company

Florida Power & Light Company (FPL) is the licensed operator of Turkey Point Units 3 and 4, a nuclear facility located in Dade County, Florida. 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 outside response organizations and continuing communication.

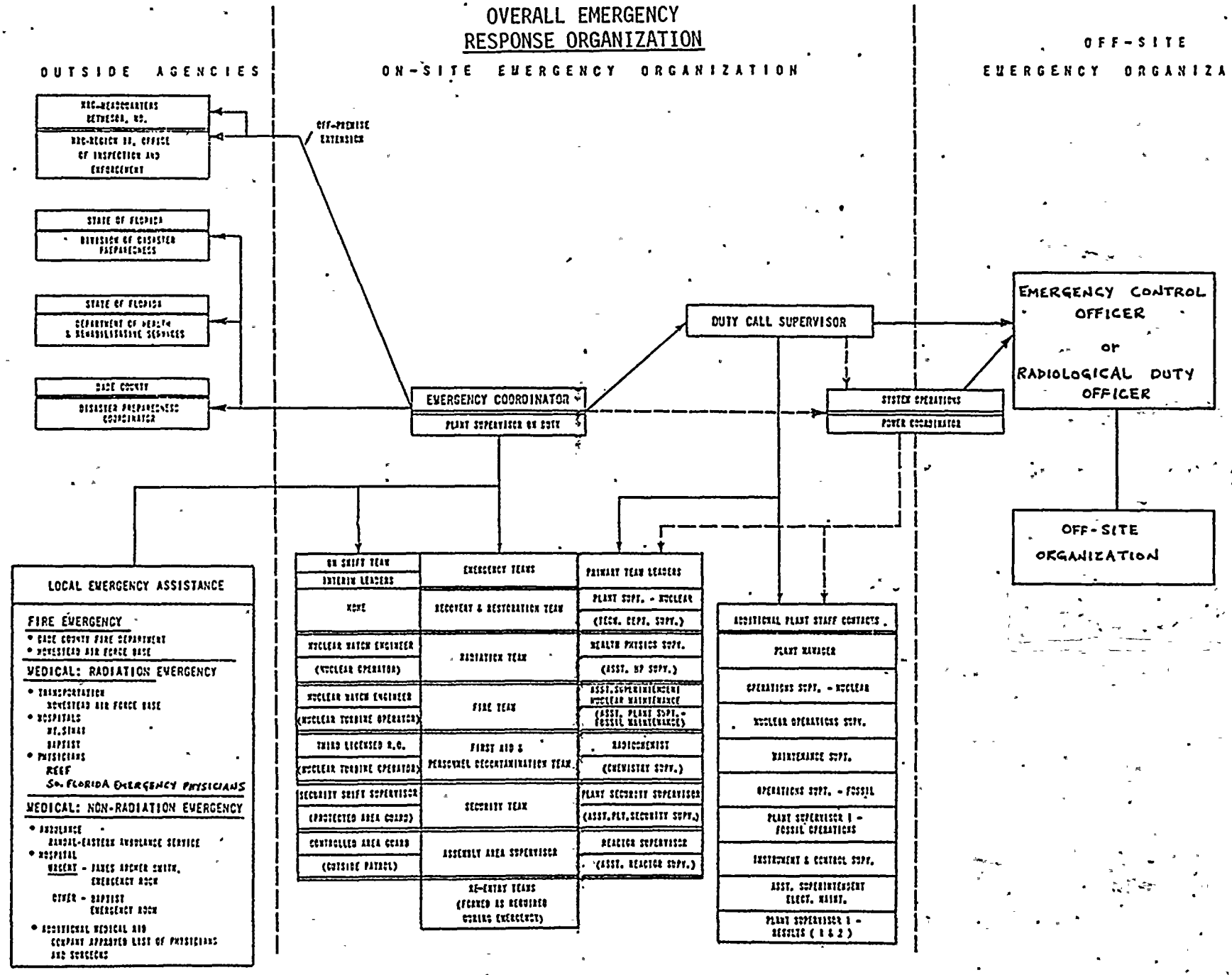
4) Initiation of protective actions for employees and others on-site.

5) Mobilization of the Florida Power & Light Company Emergency Response Organization.

6) Continuing data collection, dose projection, and assessment actions.

FIGURE 2-1

OVERALL EMERGENCY RESPONSE ORGANIZATION



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7) Recovery and re-entry.

The Florida Power & Light Company Emergency Response Organization is described in detail in Section 2.2.

2.1.2 State of Florida Response Organization

Figure 2-2 illustrates the overall State of Florida Emergency Response Organization.

State of Florida Bureau of Disaster Preparedness

The Bureau of Disaster Preparedness (BDP) is the state agency authorized to coordinate all state and local emergency response. The BDP will receive initial notification from Florida Power & Light Company and is responsible for mobilizing the state and local emergency response. This emergency resonse is conducted in accordance with the State of Florida Radiological Emergency Plan for Fixed Nuclear Facilities, prepared by the BDP. This plan appears in Appendix A. The BDP's defined responsibilities include:

1) Overall responsibility for the development and implementaton of state and county emergency response plans.

2) Command and control.

3) Notification and communication.

4) Coordination among state 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 the BDP with technical support and expertise in radiological matters.

FIGURE 2-2

STATE OF FLORIDA ORGANIZATION FOR RADIOLOGICAL RESPONSE

(LATER)

This includes the following responsibilities:

1) Radiation accident evaluation.

2) Off-site radiological exposure control and protective response recommendations (including off-site evacuations, if necessary).

3) Emergency medical services, public health, and sanitation.

4) Economic and social services.

5) Other additional responsibilities as delineated by formal agreement between Florida Power & Light Company and the DHRS (attached as Appendix B), including the assessment of off-site impact or potential off-site impact of radiological incidents at the Turkey Point Plant.

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

The Florida Highway Patrol, at the directin of the BDP, provides the following services.

1) Traffic control.

2) Communications (support).

3) Law enforcement coordination.

4) Transportation of radiological emergency teams.

These services will be provided in accordance with Florida Highway Patrol General Order Number 25 (Appendix C).

Other State Agencies

As defined in the state's plan (Appendix A), the BDP can request support as necessary from the following state agencies:

1) Department of Transportation, Division of Road Operations.

2) Department of Agriculture and Consumer Services.

3) Department of Natural Resources, Division of Law Enforcement.

2.1.3 Dade County Response Organization

Dade County Disaster Preparedness Coordinator

The county Disaster Preparedness Coordinator (Metropolitan Dade County Civil Defense Division) receives initial notification from Florida Power & Light Company simultaneously with the BDP. He then has responsibility for initiating any necessary protective actions (including off-site evacuations) based upon available information from the FP&L Emergency Coordinator and the DHRS. The Dade County Emergency Response Plan for Off-site Radiation Release from Turkey Point Plant is a part of the state plan provided in Appendix A. In addition to overall responsibility, the Disaster Preparedness Coordinator has responsibility for the following:

1) Direction and control.

2) Warning and evacuation.

3) Communications.

4) Public information.

5) Protective response.

6) Off-site radiological exposure control.

Metropolitan Dade County Public Safety Department

At the request of the Disaster Preparedness Coordinator, the Public Safety Department 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 Dade County plan, the Disaster Preparedness Coordinator can request support as necessary from the following:

1) Department of Fire Rescue.

2) Department of Public Health.

3) Public Works/General Services Administration.

4) Metro Transit Agency.

5) American Red Cross.

The Metropolitan Dade County Fire Department, by agreement with Florida Power & Light Company (Appendix D) will respond to site emergencies 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 (hot line) from the Control Room to the Bethesda, Md. Operations Center within one hour after identifying the existence of an emergency condition.

U. S. Coast Guard

At the request of Florida Power & Light Company (on-site activities) and the BDP (off-site activities), the Coast Guard can provide rescue assistance in accordance with their general authority as described in Appendix E.

U. S. Department of Energy (DOE)

Upon request from Floria Power & Light Company (on-site activities) or the DHRS (off-site activities), the DOE (formerly ERDA) can provide a Radiological Assistance Team to aid in evaluating radiological hazards in accordance with the provisions of its Interagency Radiological Assistance Plan (provided in Appendix F). This support would be provided out of DOE's Savannah River Operations Office, Aiken, South Carolina.

Homestead Air Force Base, 31st Tactical Fighter Wing

Upon request from Florida Power & Light Company, the 31st Tactical Fighter Wing can furnish the following services in accordance with an agreement between FP&L and the Base Commander (Appendix G):

1) Helicopters and watercraft for evacuation of personnel from the site.

2) Helicopters and surface ambulances for evacuation of injured

personnel to designated hospitals, and for transporting medical personnel to the Turkey Point Plant, if necessary.

3) Fire fighting equipment to assist the plant fire control team.

4) Weather data in the event of a radiological release.

5) Disaster Control Group (including radiological monitors) to assist in control and containment.

2.1.5 Private Sector Organizations

REEF Associates, Inc.

REEF Associates, Inc., located within the Mt. Sinai Hospital complex, provides immediate availability of fully equipped primary medical facilities with an adequate staff of physicians, nurses, and technical personnel skilled in the diagnosis and treatment of radiation injury and personal contamination. This support is provided in accordance with REEF's Radiation Emergency Plan (provided in Appendix H). REEF is discussed in detail in Section 2.5, Medical and Health Support.

Institute of Nuclear Power Operations (INPO)

INPO maintain industry source lists for personnel and equipment which can be made available for support services during an emergency.

Westinghouse Electric Corporation

Westinghouse is the Nuclear Steam System Supplier (NSSS) for the Turkey Point nuclear units. Westinghouse can provide information and advice upon request.

2.2 Florida Power & Light Company Emergency Response Organization

The purpose of this section is to describe FP&L's Emergency Response Organization including both on-site and off-site organizational 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 off-site 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.

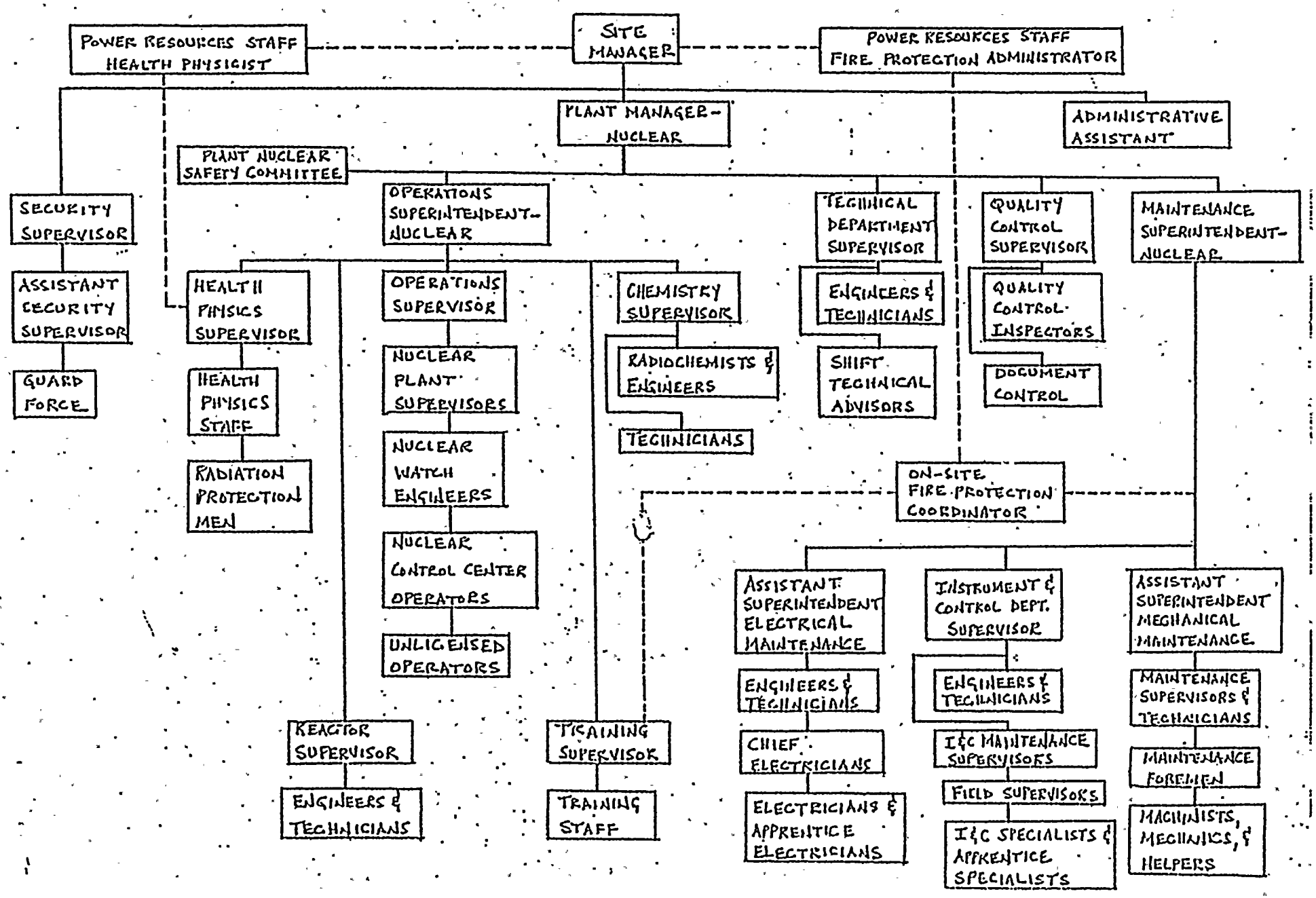
2.2.1 Normal Operating Organization

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 initiate the Emergency Plan and to implement the immediate response actions necessary.

The normal hours operating staff at the Turkey Point Plant consists of approximately 240 people. During off-hours approximately 20-40 employees are on-site. Key operating positions are described below:

FIGURE 2-3

TURKEY POINT PLANT NORMAL OPERATING ORGANIZATION



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Site Manager

The Site Manager reports to the Manager of Power Resources - Nuclear and has the direct responsibility for the operation and maintenance of the Turkey Point Plant in a safe, reliable, and efficient manner.

Plant Manager - Nuclear

The Plant Manager - Nuclear reports to the Site Manager and is responsible for the overall operation of Units 3 and 4. He is the Duty Call Supervisor when on site. Otherwise, the Duty Call Supervisor is regularly assigned from the nuclear plant staff. He is available and on call 24 hours a day. His duties and responsibilities include response to off-normal operating conditions, problems, or emergencies upon notification from the Nuclear Plant Supervisor.

Operations Superintendent - Nuclear

The Operations Superintendent - Nuclear has the overall responsibility for directing the day-to-day operation of the plant. He holds an NRC Senior Operators License. He reports directly to the Plant Manager - Nuclear and directs the Nuclear Operations Supervisor. He coordinates operation-related maintenance activities with the Maintenance Superintendent. He assumes all of the Plant Manager - Nuclear's responsibilities and authority in his absence. He is also responsible for directing supervisory activities in the areas of Health Physics, Chemistry, and Reactor Engineering.

Operations Supervisor

The Operations Supervisor has responsibility for directing the activities of the nuclear plant operating shifts, including the Nuclear Plant Supervisors and Nuclear Watch Engineers. He holds an NRC Senior Operators License. He is also responsible for supervision of fuel handling operations.

Nuclear Plant Supervisor

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

Nuclear Watch Engineer

The Nuclear Watch Engineer is the working operating foreman assigned to each unit for each shift. He reports directly to the Nuclear Plant Supervisor. He holds an NRC Senior Operator License.

Health Physics Supervisor

Supervises the Health Physics Department. He is responsible for implementing and maintaining the plant's radiation protection program. He reports directly to the Operations Superintendent - Nuclear.

Chemistry Supervisor

Supervises the Chemistry Department. He is responsible for chemical and radiochemical monitoring, analysis, and evaluation. He supervises overall laboratory operation and ensures that chemistry training, record keeping and reporting requirements are met. He reports directly to the Operations Superintendent - Nuclear.

Reactor Engineering Supervisor

Supervises the Reactor Engineering Department. He is responsible for day-to-day reactor operation, nuclear physics testing, fuel burnup

calculations, fuel shuffles during refuelings, and various administrative duties. He reports directly to the Operations Superintendent - Nuclear.

Maintenance Superintendent

Supervises the Electrical, Mechanical, and Instrument and Control (I & C) Departments. He is responsible for the maintenance of mechanical, electrical, and I & C equipment in the nuclear units. He reports directly to the Plant Manager - Nuclear.

Technical Department Supervisor

Supervises the Shift Technical Advisors and other general plant engineers and technicians. He reports directly to the Plant Manager - Nuclear.

Quality Control Supervisor

Supervises the Quality Control (QC) Department. He is responsible for directing the activities of the Document Control section and the QC Inspectors who perform surveillance and inspection of nuclear safety related activities to monitor for regulatory compliance. He reports directly to the Plant Manager - Nuclear.

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 preassigned to the Off-site Emergency Organization and arrangements are made for others in the normal corporate organization to carry out routine duties in the event of an emergency. Off-site Emergency Organization members are also available periodically to develop, review, and practice procedures covering their responsibilities.

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

2.2.2.1 Immediate Response Phase

Initiating Event (Site Emergency or General Emergency)

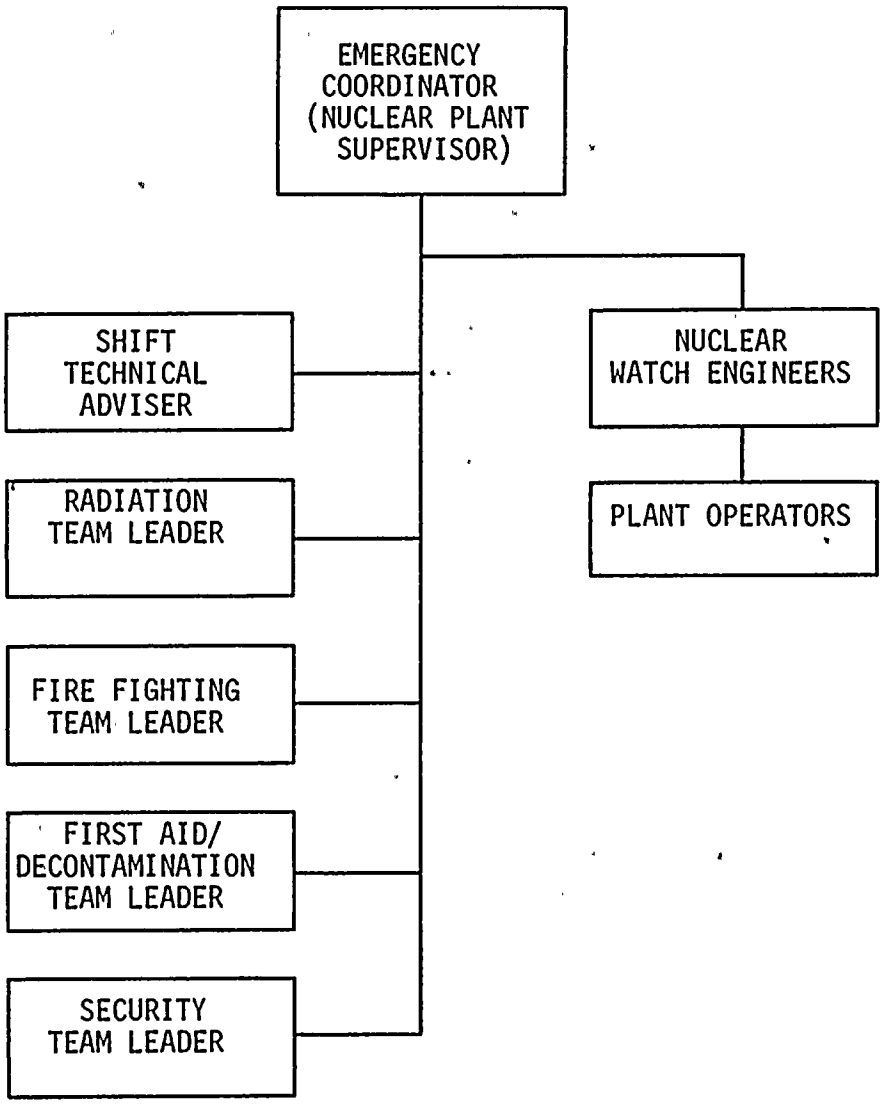
The emergency response is initiated by any individual who discovers an emergency condition. This person notifies the Nuclear Plant Supervisor by the fastest means possible. This first phase is characterized by diagnosis and immediate action by the plant operators on shift.

Organization

The Nuclear Plant Supervisor becomes the Emergency Coordinator and, as such, directs the On-site Emergency 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 (2.2.2.4) describes the emergency services to be provided initially by plant staff. Figure 2-4 shows the immediate response organization.

FIGURE 2-4

IMMEDIATE RESPONSE ORGANIZATION



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Line of Succession

Table 2-1 provides the line of succession for the position of Emergency Coordinator should the Nuclear Plant Supervisor be incapacitated. If the function is assumed, it is the responsibility of the new Emergency Coordinator to ascertain the status of all Emergency Coordinator responsibilities.

Actions

The Emergency Coordinator initiates the following actions:

1) Orders corrective actions to bring the emergency under control.

2) Notifies the state Bureau of Disaster Preparedness Duty Warning Officer and the county Disaster Preparedness Coordinator by NAWAS, LGR, or telephone.

3) Mobilizes the On-site Emergency Organization.

Delegation

The Emergency Coordinator can delegate his responsibilities at his discretion with the exception of the following responsibilities which cannot be delegated:

TABLE 2-1

LINE OF SUCCESSION FOR EMERGENCY COORDINATOR

Emergency Coordinator: Nuclear Plant Supervisor

- In the event the Nuclear Plant Supervisor is incapacitated, the Emergency Coordinator will be (in order of succession):

  1) Nuclear Watch Engineer.

  2) Any other member of the plant staff with a Senior Reactor Operator license.

  3) Nuclear Control Center Operator, Unit 3.

  4) Nuclear Control Center Operator, Unit 4.

- The Emergency Coordinator can grant permission for watch relief, including his own, when the emergency condition is sufficiently under control to make it safe in his judgement to do so.

- The Technical Department Supervisor (if he has a Senior Reactor Operator license), or the Operations Superintendent - Nuclear (if he has a Senior Reactor Operator license), may assume the duties of the Emergency Coordinator at their discretion.

1) Decision to notify state and local authorities.

2) Content of notification and/or other data released to state and local authorities.

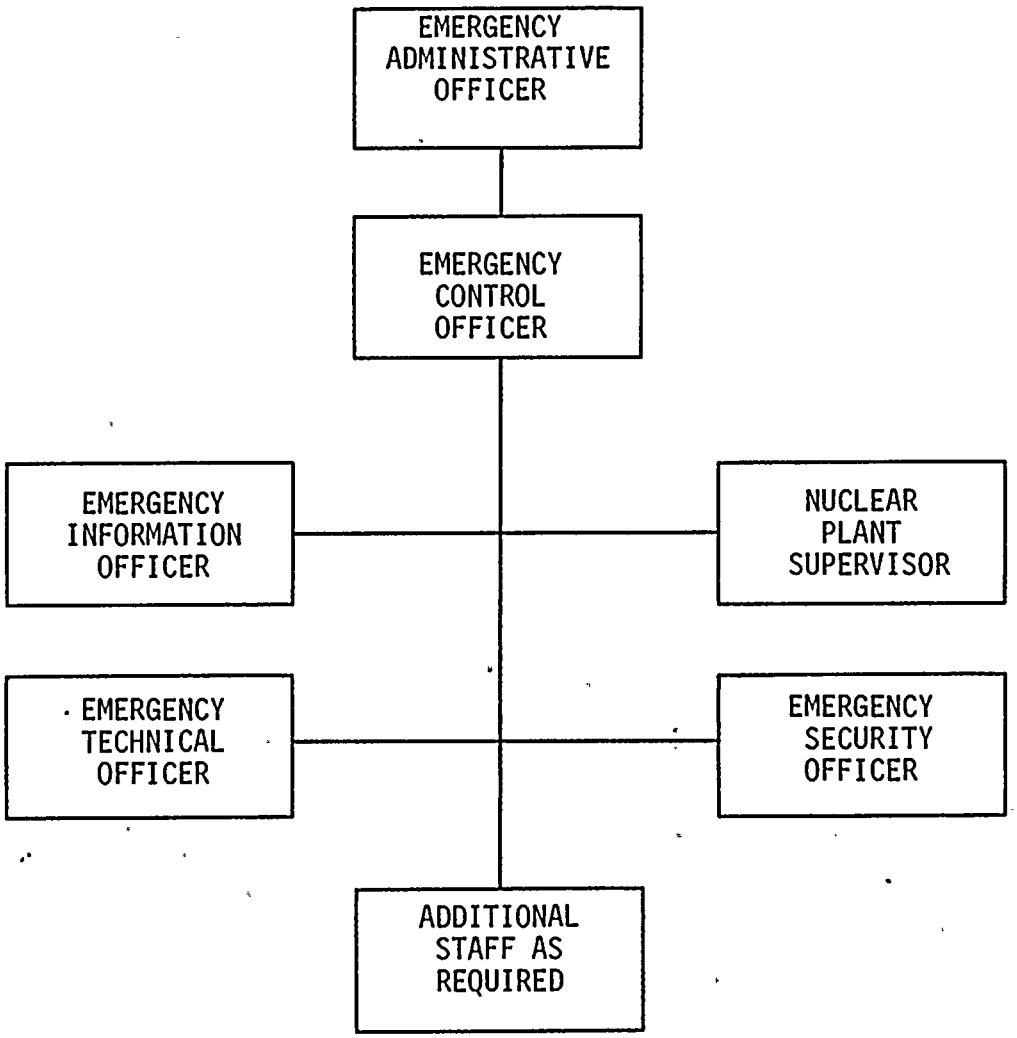
2.2.2.2 Expanded Response Phase

Initiating Action

The second phase is initiated by the Emergency Coordinator. His notification activities mobilize the Florida Power & Light Company Off-site Emergency Organization as well as state, local, and federal emergency response organizations. Mobilization proceeds to the degree necessary to respond to the severity of the accident. Plant conditions are stabilized and responsiblity for response is centered about the plant organization (including off-duty personnel notified to report to the plant) with backup provided by the off-site organization. This phase represents the period where augmenting staff support is shaped by the determinations of the Emergency Control Officer as described below. Figure 2-5 shows the response organization that can develop during this period, if required.

FIGURE 2-5

EXPANDED RESPONSE ORGANIZATION



Emergency Administrative Officer (EAO)

The EAO will be a designated Corporate Officer with the authority to establish policy and to expend the funds necessary to cope with any emergency situations that arise.

Emergency Control Officer (ECO)

The ECO will be a designated Corporate Officer or 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 ECO can report to the the General Office Emergency Center, the near-site Emergency Operations Facility or the on-site Technical Support Center depending upon his assessment of the situation. He is responsible for all off-site emergency activities, including personnel assignments and communication arrangements. Specific responsibilities for the ECO or his designee include the following:

1) To inform periodically the Emergency Aministrative Officer of the on-site status.

2) To provide support and data as necessary to the Emergency Coordinator.

3) To obtain information on diagnoses and prognoses of the emergency, estimates of radioactive releases, prevailing meteorological conditions, and projected radiological exposures.

4) To assume from the EC, the responsibility for communicating such information to and coordinating with the state and county response organizations.

5) To request additional support from FPL and others as necessary.

Emergency Information Officer (EIO)

The EIO will be a designated Corporate Officer or Senior Manager experienced in disseminating information to the public via the news media. During this phase, the EIO can operate from the General Office Emergency Center or the near-site Emergency News Center, as conditions dictate. He will have the following responsibilities:

1) To disseminate available information from the ECO to the news media and to provide periodic updates.

2) To work with NRC, state and county news media representatives to effect joint releases and public appearances.

Emergency Security Officer (ESO)

The ESO will be a Company supervisor with security experience and will be responsible to the ECO for maintaining controlled access, for completing any required site evacuations and for providing liaison with county law enforcement and rescue agencies.

Emergency Technical Officer (ETO)

The ETO will be a Senior Manager 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.

Augmented Staff Support

Additional staff support can be provided during this phase to augment the operating staff on-site and off-site. The Emergency Control Officer will have access to this support through Emergency Roster maintained by the Emergency Plan Administrator.

Lines of Succession

Lines of succession are controlled by procedures and the roster is maintained by the Emergency Plan Administrator.

Delegation

Delegation authority is controlled by procedure.

Emergency Classification

Site Emergencies and General Emergencies will initiate the establishment of the expanded response organization.

2.2.2.3 Plant Staff Emergency Assignments

a) Interim (Shift) Emergency Team

1) The Interim Emergency Team is composed of members chosen from personnel assigned to PTP. All are qualified in procedures and practices required for the performances of their duties as team leaders or members. The Interim Team should take action regardless of the fact that the Primary Emergency team may be present.

2) Members of the Interim Emergency Team may consider themselves relieved only upon the specific instructions of a recognized superior or the Primary Emergency Team

Leader. Merely knowing that a superior or a Primary Emergency Team Leader is present does not constitute a release from emergency duties and responsibilities.

b) Primary Emergency Team

1) The Primary Emergency Team is composed of first line management personnel and others who normally work on the regular day work schedule, which is also exclusive of weekends and holidays.

2) At their own option, and with the knowledge of the Emergency Coordinator, line management members of that team may relieve their counterpart on the Interim Emergency Team.

c) Emergency Team Members

1) Plant Systems Operations

The Nuclear Plant Supervisor on duty becomes the Emergency Coordinator in the event of an emergency. He may be relieved as the Emergency Coordinator by the Plant Manager - Nuclear, or the Operations Superintendent - Nuclear. His normal alternate is the Nuclear Watch

TABLE 2-2

Florida Power & Light Emergency Response Organization

Functions and Responsibilities

Function	Responsibility: Immediate	Responsibility: Expanded
Command and Control	Emergency Coordinator (Nuclear Plant Supervisor)	Emergency Control Officer
Warning	Emergency Coordinator	Emergency Control Officer
Notification/ Communications	Emergency Coordinator	Emergency Control Officer
Public Information	Emergency Information Officer	Emergency Information Officer
Accident Assessment	Emergency Coordinator (assisted by Shift Technical Advisor)	Emergency Control Officer (assisted by Emergency Technical Officer and technical staff)
Fire	Fire Team Leader	Fire Team Leader
Rescue	Radiation Team Leader	Radiation Team Leader
Traffic Control	Security Team Leader	Security Team Leader
Emergency Medical Services	First Aid Team Leader	First Aid Team Leader

TABLE 2-2 (Continued)

Florida Power & Light Emergency Response Organization

Functions and Responsibilities

Function	Responsibility	
	Immediate	Expanded
Transportation	Security Team Leader	Emergency Security Officer
Protective Response (On-site)	Emergency Coordinator	Emergency Control Officer (assisted by Health Physics Supervisor)
Radiological Exposure Control (on-site)	Emergency Coordinator	Emergency Control Officer (assisted by Health Physics Supervisor)

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Engineer. The Nuclear Plant Supervisor and Nuclear Watch Engineer positions are manned 24 hours a day, seven days a week. 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 Survey and Monitoring - The primary Radiation Team Leader is the Health Physics Supervisor. He directs the actions of the technicians under the orders of the Emergency Coordinator. The Interim Radiation Team Leader is designated as the Nuclear Watch Engineer with support from Nuclear Operators if no health physics technicians are on-site. A call-out list is maintained for health physics personnel to cover any shifts not normally staffed.

5) Plant System Engineering

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

6) Firefighting

The Interim Fire Team Leader is the Nuclear Turbine Operator. This position is manned continuously, but if he is not available the Nuclear Watch Engineer acts as his alternate. Fire Departments from Homestead Air Force Base or Metropolitan Dade County may respond to fires on-site.

7) Rescue Operations

Rescue Operations involve the first aid/decontamination team and the radiation team as necessary. Under the control of the Radiation Team Leader, entry to potentially hazardous areas will be made by the first aid team with assistance from the radiation team. Upon notification of the injury, both teams will respond per the Emergency Coordinator's instructions.

8) First Aid/Decontamination Team

The plant Radiochemist acts as the primary team leader with the Chemistry Supervisor as his alternate. A nuclear operator, trained in first aid and personnel decontamination, will act as the interim team leader. If no Chemistry Department personnel are on-site, any trained employee could act as a first aid team member until primary team members can be called in.

9) Security of Plant and Access Control

The Security Supervisor will act as the Security Team Leader with the Guard Captain as his alternate. Personnel control and accountability are the responsibility of the security team. Notification of occupants in the owner controlled area will take place during the security sweep of the area.

10) Repair and Damage Control

Repair and damage control will be performed by assigned teams. These teams are composed of members from all the emergency teams and may be augmented by 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.

11) Personnel Accountability

Personnel accountability is accomplished by Security Department personnel as part of their duties on the security team.

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 U. S. Department of Energy Radiological Assistance Plan

The Florida Power & Light Company Emergency Coordinator is authorized to request on-site assistance from the DOE Radiological Assistance Plan and the Interagency Radiological Assistance Plan. This assistance can include advice, emergency action essential for the control of any immediate hazards, and radiation surveys. Requests for the use of radiation teams and equipment will be directed to the Manager of the U. S. DOE's Savannah River Operations Office in Aiken, South Carolina (see Appendix E).

The State of Florida's Department of Health and Rehabilitative Services can request the Bureau of Disaster Preparedness to seek similar assistance from the DOE for off-site activities.

2.3.2 Response Organization Representatives

Florida Power & Light Company has provided facilities in the near-site Emergency Operations Facility for representatives from principal response organizations.

2.3.3 Radiological Laboratories

Florida Power & Light Company has primary and backup radiological laboratory facilities on-site. A hot lab backup will be provided by an FP&L owned mobile van. Environmental sampling will be augmented by the state's Mobile Emergency Radiological Laboratory within approximately six hours of notification. If required, the laboratory facilities at FP&L's St. Lucie Plant can be used.

2.3.4 Additional Assistance

The Institute for Nuclear Power Operation (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 (Westinghouse Electric Corp.).

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.

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

FIGURE 2-6

TURKEY POINT PLANT EMERGENCY FACILITIES LOCATION MAP

(LATER)

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 also 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 on-site personnel and off-site authorities in the event of an accident. This includes the National Warning System (NAWAS), Local Government Radio (LGR) System, Off Premise Extension (OPX hot line) to the NRC Operations Center (in Bethesda, Md.), standard telephones, Florida Power & Light Company radio system, public address system, PAX telephone system, FM radio 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 a near-site Emergency Operations Facility 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 mobilized for an

TABLE 2-3

CONTROL ROOM EMERGENCY EQUIPMENT

(LATER)

emergency classified as a Site Emergency or General Emergency.

The Emergency Operations Facility is maintained at (to be provided later). This allows for sufficient space to accommodate the Florida Power & Light Company recovery organization and representatives of the designated federal, state, and local authorities.

The Emergency Operations Facility contains computer equipment for access to radiological and meteorological parameters monitored in the Control Room.

The Emergency Operations Facility contains emergency radiological monitoring equipment and supplies, protective clothing, respiratory protection devices, essential precalculated emergency data, and required reports and drawings. Table 2-4 provides a listing of the emergency equipment maintained in the Emergency Operations Facility.

The Emergency Operations Facility has an emergency communications network including Local Goverment Radio, dedicated telephone lines to the Technical Support Center, and the NRC, and standard telephone lines.

The Emergency Operations Facility will be staffed as required under the direction of the Emergency Control Officer.

TABLE 2-4

EMERGENCY OPERATIONS FACILITY EMERGENCY EQUIPMENT

(LATER)

2.4.3 Alternate Emergency Operations Facility

The alternate Emergency Operations Facility is maintained at FPL General Office. This facility will be used if the Emergency Operations Facility should become untenable.

2.4.4 Technical Support Center

The Company maintains an on-site Technical Support Center 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 the emergency.

Activation of the Technical Support Center will be initiated by the Emergency Coordinator. Staffing of the Technical Support Center under the direction of the Emergency Control Officer will be completed for any emergency classified as a Site Emergency or General Emergency.

The Technical Support Center provides for access to the plant operating, radiological and meteorological 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. The document control center where pertinent records and drawings are available is located in the I & C building, in close proximity to the TSC. Table 2-5 provides a listing of the emergency equipment maintained in the Technical Support Center.

The Technical Support Center has an emergency communications network including dedicated telephone lines to the Control Room, the Emergency Operations Facility, and the NRC Operations Center (in Bethesda, Md.), and standard telephone lines.

The Technical Support Center will be staffed by a multidisciplinary group from several Company departments under the direction of the Technical Support Center Supervisor who will be designated by the Emergency Control Oficer. This staff will include members responsible for interfacing with AE and NSSS emergency technical assistance organizations. The TSC Supervisor will provide direct support to the Emergency Coordinator in the Control Room.

TABLE 2-5

TECHNICAL SUPPORT CENTER EMERGENCY EQUIPMENT

(LATER)

2.4.5 Operational Support Center

The Company maintains an on-site Operational Support Center (OSC) to serve as an assembly point for auxiliary operators, health physics technicians, maintenance personnel, and other plant shift personnel available to support the emergency response. Required staff will be assigned to appropriate activities by the Control Room.

Activation of the OSC will be initiated by the Emergency Coordinator. The OSC will be in operation for a Site Emergency or General Emergency within two hours of the notification.

The OSC is maintained in the south assembly room in the site administration building. PAX telephone communications are maintained between the OSC and the Control Room.

2.4.7 Alternate Operational Support Center

In the event that the OSC becomes untenable, the Emergency Coordinator will designate an alternate location.

2.4.8 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 Officer or his designee will man the ENC.

The ENC is located at (to be provided later).

2.4.8 General Office Emergency Center

The General Office Emergency Center is an area within the Power Resources Management area at the Florida Power & Light Company General Offices. It is equipped with dedicated telephone to the Emergency Operations Facility and the Control Room. The Emergency Control Officer

and his staff will man the center to direct the off-site emergency organization (Figure 2-5) and to provide support and resources to the on-site organization.

2.4.9 Metropolitan Dade County Emergency Operations Center

The Dade County EOC will be the point from which state and county response activities will be controlled. The facility is located at 5600 SW 87 Avenue, Miami, Florida. Communications include NAWAS, RACES, Local Government Radio, teletype, police and fire nets, and telephone. A dedicated telephone line is provided from FPL near-site Emergency Operations Facility to the EOC.

2.5 Medical and Health Support

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

2.5.1 Plant First Aid Facility

The health physics office on the ground floor of the Auxiliary Building is 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, but in greater quantity, is maintained in the Turkey Point Site Boundary Station. The medical supplies and first aid kits in the first-aid stations, Site Boundary Station and Cutler Plant, are checked at least every two months and replenished as necessary by the Health Physics Department. Basket stretchers are placed at strategic locations at Units 3 and 4.

A personnel decontamination washroom and shower room with chemical decontamination agents is provided on the ground floor of the Auxiliary Building. Except in cases of serious injury, accepted decontamination practices will be employed on-site. 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 REEF

Associates, Inc. at the designated facilities at Mount Sinai Hospital, or by South Florida Emergency Physicians, P.A. in the Emergency Room at Baptist Hospital of Miami, Inc..

2.5.2 REEF Associates, Inc.

REEF Associates, Inc. (REEF), located within Mt. Sinai Hospital, provides for immediate availability of fully equipped primary medical facilties with an adequate staff of physicians, nurses, and technical personnel skilled in the diagnosis and treatment of radiation injury and personnel contamination, and fully equipped and staffed regional facilities to provide definitive medical care for serious cases of radiation exposure (Appendix H). REEF, at the request of Florida Power & Light Company, will work with representatives of FP&L to implement the medical aspects of an incident involving the community, will assist in the investigation of causes of radiation injury and the means of preventing a recurrence thereof, and will assist in the investigations of actual or alleged radiation injury and will provide documentation and testimony as required.

REEF will provide for hospital treatment, medical examinations, and laboratory services for those employees and other persons designated by Florida Power & Light Company who allegedly have been involved in a radiation incident. When primary facilities are considered inadequate by REEF 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 by REEF and copies furnished to Florida Power & Light Company.

Implementing Organization

REEF Associates, Inc., a group of physicians, basic scientists, and technologists at the Division of Nuclear Medicine, Mount Sinai Hospital, Miami Beach, has developed the Radiation Emergency Medical Plan (Appendix H) and the Radiation Emergency Evaluation Facility (REEF) to carry out the terms of the REEF Associates, Inc. agreement with Florida Power & Light Company. REEF will:

1) Coordinate the efforts of the multiple medical disciplines within the Mount Sinai Hospital of Greater Miami which are committed to support the radiation emergency medical treatment effort of REEF.

2) Develop plans, procedures, and training programs for the reception, diagnosis, and treatment of personnel with injuries involving radiation exposure and/or radioactive contamination.

3) Designate the physical facilities and equipment to be used for initial emergency care and subsequent definitive care and treatment of personnel with radiation injuries.

4) Designate physicians, basic science personnel, and medical support personnel and alternates for special hospital and REEF emergency teams to handle radiation emergency patients.

5) Train the designated emergency team personnel and others involved in the care and treatment of radiation injuries.

6) Provide training for selected Florida Power & Light Company employees in the special aspects of first aid related to serious radiation exposure, and to injury accompanied by radiation exposure and/or radioactive contamination, including the evacuation of casualties to off-site medical facilities.

7) Ensure that key medical team personnel are familiar with the first aid and personnel decontamination capabilities at the Turkey Point Plant.

Primary Facilities

The facilities of REEF are located in the Mount Sinai Hospital of greater Miami. The patient receiving area is an active nuclear medicine diagnostic and research area, and 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 treamtment of decontaminated radiation accident casualties or persons who have received only external radiation exposures.

Regional Facilities

A letter of agreement between the Oak Ridge Associated Universities (ORAU) and REEF Associates, Inc. provides back-up 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 transferred from REEF.

2.5.3 South Florida Emergency Physicians, PA

Interim Radiological Medical Support (Appendix H)

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

This facility, available on a 24-hour basis, will usually be used if the primary facility is not accessible or available, or if the seriousness of a physical injury dictates its use.

3. EMERGENCY CLASSIFICATION SYSTEM

Emergency situations are classified to cover a spectrum of emergencies. The classifications which have been adopted are the Alert, Site Emergency, and General Emergency classifications.

3.1 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. Report the Alert Status to offsite authorities (FPL and non-FPL) in accordance with plant procedures.

2. If necessary, augment resources by activating the on-site Technical Support Center.

3. Assess and respond as directed by the Emergency Coordinator.

4. Dispatch on-site monitoring teams as directed by the Radiation Team Leader.

5. Provide periodic plant status updates in accordance with plant procedures.

6. Provide periodic meteorological assessments in accordance with plant procedures if releases are anticipated or occurring. If releases are occurring, provide dose estimates for actual releases.

7. Close out by verbal summary to offsite authorities, followed by a written summary within 24 hours, or escalate to a higher class.

3.2 Site Emergency

This classification is represented by 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. Report the Site Emergency Status to offsite authorities (FPL and non-FPL) in accordance with plant procedures.

2. Augment resources by activating the on-site Technical Support Center, the on-site Operations Support Center, and the near-site Emergency Operations Facility.

3. Assess and respond as directed by the Emergency Coordinator.

4. Dispatch on-site monitoring teams as directed by the Radiation Team Leader.

5. Provide periodic plant status updates in accordance with plant procedures.

6. Provide periodic meteorological assessments in accordance with plant procedures.

7. Provide release and dose projections based on available plant and meterological information and foreseeable contingencies.

8. Close out or recommend a reduction in emergency class by briefing offsite authorities, followed by a written summary within 24 hours, or escalate to General Emergency class.

3.3 General Emergency

This classification is represented by 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. Report the General Emergency status to off-site authorities (FPL and non-FPL) in accordance with plant procedures.

2. Augment resources by activating the on-site Technical Support Center, the on-site Operations Support Center, and the near-site Emergency Operations Facility.

3. Assess and respond as directed by the Emergency Coordinator.

4. Dispatch on-site monitoring teams as directed by the Radiation Team Leader.

5. Provide periodic plant status updates in accordance with plant procedures.

6. Provide periodic meteorological assessments in accordance with plant procedures.

7. Provide release and dose projections based on available plant and meterological information and foreseeable contingencies.

8. Close out or recommend a reduction in emergency class by briefing offsite authorities, followed by a written summary within 24 hours.

3.4 Emergency Action Levels

Emergency action levels for a wide variety of hypothetical 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 Alert, Site Emergency, or General Emergency.

The Emergency Coordinator may classify events into one of the three 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.

TABLE 3-1
EVENTS, CLASSIFICATIONS AND INITIATING CONDITIONS

1. UNCONTROLLED EFFLUENT RELEASE

Alert	Site Emergency	General Emergency
A release has occurred or is in progress that is 10 times the T.S. limit (as shown by sample/survey)	A release has occurred or is in progress resulting in 50 mR/hr (whole body) for 1/2 hr or 500 mR/hr (whole body) for two min at site boundary*	A release has occurred or is in progress resulting in 1 R/hr (whole body) or 5 R/hr (thyroid) at site boundary*

*These criteria will be implemented upon installation of Appendix I instrumentation.

2. FUEL ELEMENT FAILURE

Alert	Site Emergency	General Emergency
(1) PRMS R-20 alarming, and (2) RCS I-131 activity $\geq$ 300 μCi/ml	Core damage with inadequate core cooling determined by: (1) RCS I-131 activity $\geq$300 μCi/ml, and (2) RCS T_h >620°F, or (3) Incore thermocouple temperatures >700°F	Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier determined by: (1) RCS I-131 activity $\geq$300 μCi/ml, and (2) Containment pressure >20 psi, or (3) Loss of containment integrity as defined in Technical Specifications

3. ABNORMAL PRIMARY LEAK RATE

Alert	Site Emergency	General Emergency
RCS water inventory balance indicates >50 GPM leakage	Loss of RCS coolant in excess of HH pump capacity, and containment pressure >4 psi	Containment pressure >20 psi

4. ABNORMAL PRIMARY/SECONDARY LEAK RATE

Alert	Site Emergency	General Emergency
(1) RCS water inventory balance indicates >50 GPM, and (2) PRMS R-15 or R-19 alarming	(1) Pressurizer level off-scale low, and (2) Safety injection has actuated, and (3) A sustained loss of both 4160V busses has occurred	Refer to Event 1 (Uncontrolled Effluent Release)

5. FIRE

Alert	Site Emergency	General Emergency
Uncontrolled fire, potentially affecting safety systems and requiring off-site support	Fire resulting in degradation of safety systems	

6. LOSS OF ASSESSMENT FUNCTIONS

Alert	Site Emergency	General Emergency
All annunciator alarms lost >15 minutes with plant not in cold shutdown or during plant transient		

7. NATURAL PHENOMENA

Alert	Site Emergency	General Emergency
(1) Notification by the Weather Bureau of the approach of a hurricane with winds up to design basis (225 mph) levels, or (2) Any tornado striking facility	Notification by the Weather Bureau of the approach of a hurricane with winds > design basis (225 mph) levels	

8. HAZARDS TO STATION OPERATION

Alert	Site Emergency	General Emergency
(1) Aircraft crash on site damaging vital plant systems, or (2) Damage to safe shutdown equipment from missiles or explosion		

9. LOSS OF SECONDARY COOLANT

Alert	Site Emergency	General Emergency
Loss of secondary coolant downstream of MSIV with malfunction of MSIV(s) or >10 GPM primary-to-secondary leak: (1) Indication of a major steam leak, and (2) MSIV(s) are in a position other than closed, or (3) RCS water inventory balance indicates >10 GPM leakage	Loss of secondary cooling with >50 GPM primary/secondary leak rate and fuel damage: (1) Indication of a major steam leak, and (2) RCS water inventory balance indicates >50 GPM leakage with High Air Ejector Radiation, and (3) RCS I-131 activity $\geq$300 μc/ml	Refer to Event 1 (Uncontrolled Effluent Release)

10. HIGH RADIATION LEVELS IN PLANT

Alert	Site Emergency	General Emergency
General area radiation levels >1000 times normal due to high radiation or high airborne radioactivity from an unidentified and/or unisolated source, as indicated by area radiation monitoring system and area radiation sample or survey	Refer to Event 1 (Uncontrolled Effluent Release)	Refer to Event 1 (Uncontrolled Effluent Release)

11. COOLANT PUMP SEIZURE WITH FUEL DAMAGE

Alert	Site Emergency	General Emergency
(1) Reactor coolant system flow indication decreases rapidly, and (2) PRMS R-20 alarming, and (3) RCS I-131 activity $\geq$300 μCi/ml	Refer to Event 1 (Uncontrolled Effluent Release)	Refer to Event 1 (Uncontrolled Effluent Release)

12. FUEL HANDLING ACCIDENT

Alert	Site Emergency	General Emergency
Fuel handling accident which results in the release of radioactivity to containment or spent fuel pit area: (1) Direct information from fuel handling personnel indicating that an irradiated fuel assembly has been damaged and gas bubbles are escaping, and (2) Associated area or process monitor channels are alarming	Refer to Event 1 (Uncontrolled Effluent Release)	Refer to Event 1 (Uncontrolled Effluent Release)

13. CONTROL ROOM EVACUATION

Alert	Site Emergency	General Emergency
Evacuation of control room and control not established locally within 15 minutes		

4. NOTIFICATION AND COMMUNICATION

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

4.1 FP&L Emergency Response Organization

The FP&L Emergency Coordinator has the responsibility for deciding when and how to make 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 should be read as "Emergency Coordinator or his designee".

4.1.1 Initial Notification

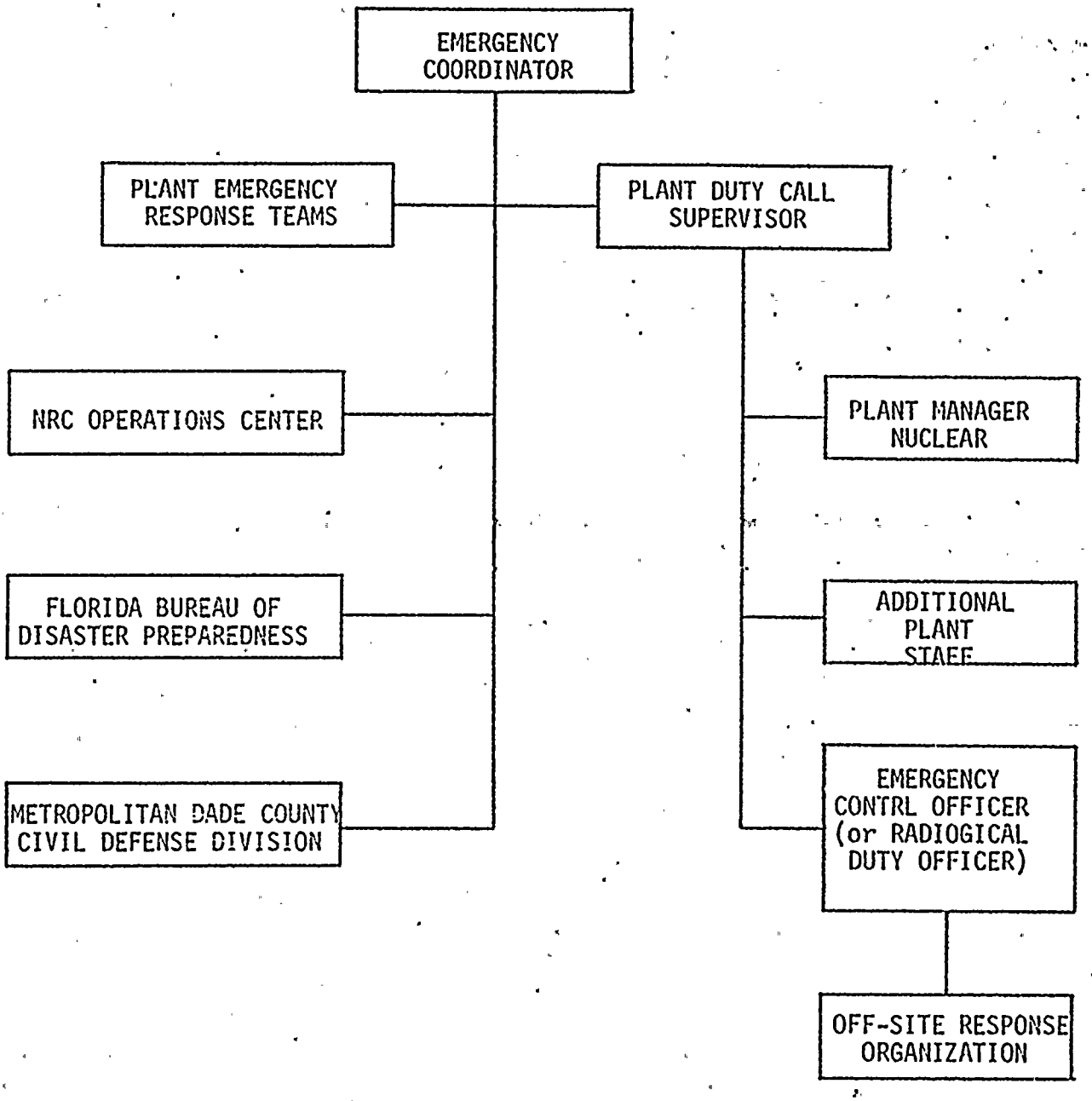
Florida Power & Light Company emergency procedures call for the following actions for initial notification within the FP&L organization.

1) Personnel detecting an emergency should report to the Nuclear Plant Supervisor by the fastest means available. This may mean face-to-face communication, the plant Public Address system, the PAX system (a dial telephone system installed throughout the Protected Area), or the standard telephone system. These systems provide adequate means of redundancy for this initial notification.

   The discoverer of an emergency should relate the following information to the maximum extent possible:

FIGURE 4-1

INITIAL NOTIFICATION FLOW



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- Type of emergency (fire, pipe rupture, etc.).

- Location of emergency.

- Presence of injured personnel.

- Extent of damage to plant components.

If necessary, the Emergency Coordinator notifies plant personnel of the emergency situation and any required protective actions by the plant Public Address system.

If necessary, the Emergency Coordinator directs the evacuation of all those on-site who are not Florida Power & Light Company employees.

2) To activate the FP&L off-site Emergency Response Organization, the Emergency Coordinator (Nuclear Plant Supervisor) notifies the Duty Call Supervisor by the available communications systems and provides basic information as described below and the status of his notification of off-site authorities. In turn, the Duty Call Supervisor relays his information to the Emergency Control Officer (ECO), or to the Radiological Duty Officer (RDO) if the ECO cannot be reached. The ECO (or RDO) notifies appropriate off-site response personnel by standard telephone. Backup communications can be accomplished by using the FM Radio System or the Company Radio System to the Systems Operations Office which can, in turn, notify the ECO or RDO.

The Duty Call Supervisor provides the following information to the ECO to the extent possible:

- Type of accident or incident.

- Assessment of the emergency condition (including the class of emergency).

- Information on personnel injuries, and an estimate of personnel radiation exposures.

- Off-site support already called in and/or required.

- An estimate of the magnitude of a radioactive material release and the areas possibly affected.

- Actions already taken or recommended with respect to the evacuation of various on-site areas.

- Wind speed and direction; wind direction range (degrees) over the previous hour.

- Assessment of potential radiation exposure to persons off-site.

4.1.2 Communications

Initially, communications between the Emergency Coordinator (in the Control Room) and FP&L's off-site Emergency Response Organization are by telephone, with radio as the backup. When the Emergency Operations Facility is mobilized, communications within the FP&L Emergency Response Organization are accomplished using the Emergency Operations Facility communication systems. This includes a dedicated telephone line to the Technical Support Center and standard phones for other communications.

4.2 State Agencies

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

4.2.1 Bureau of Disaster Preparedness

Initial Notification

FP&L's Emergency Coordinator will make initial notification to the Bureau of Disaster Preparedness via the National Warning System (NAWAS) to the Duty Warning Office at the State Warning Point in Tallahassee. Standard telephone serves as the primary backup system for initial notification. The initial notification includes the following information, if available:

- Name, address, and telephone number of caller.
- Location of incident.
- Date/time of incident.
- Estimate of quantity of radioactive material released, or being released, and height of release.
- Chemical and physical form of released material.
- Prevailing weather, if applicable:
  - a) Wind velocity.
  - b) Wind direction.
  - c) Temperature.
  - d) Atmospheric stability.
- Personnel status:
  - a) Killed.
  - b) Injured (Hospitalized).
  - c) Injured (Not hospitalized).

- Estimate of projected dose at site boundary, if applicable.
- Estimate of projected dose range for low population zone (LPZ), if applicable.
- Estimate of contamination.
- Emergency response procedures in effect, if applicable.

The initial notification may be brief with certain information not available. Followup messages from the Emergency Coordinator to the Bureau of Disaster Preparedness (BDP) will include the required information as it becomes available.

The Bureau of Disaster Preparedness has established a call procedure and code words to authenticate emergency messages from the Turkey Point Plant.

Communications

The Emergency Coordinator will maintain periodic contact with the BDP throughout the emergency until control is effectively transferred to the state/county response organization at the Metropolitan Dade County Emergency Operations Center.

Coordination communications are to be transmitted from the Control Room to the Dade County Emergency Operations Center by Local Government Radio. When the Emergency Operations Facility is mobilized, communication between the EOF and the Dade County Disaster Preparedness Coordinator is by telephone with local Goverment Radio maintained as the backup communication mode.

4.2.2 Department of Health and Rehabilitative Services

Initial Notification

The Bureau of Disaster Preparedness (BDP) Duty Warning Officer is responsible for notifying the Department of Health and Rehabilitative Services (DHRS). Notification is made to the Public Health Physicist and the Administrator, Radiological Health Services. If required, the Health Physicist notifies the DHRS's Radiological Emergency Team and the Mobile Emergency Radiological Laboratory.

Communications

The Public Health Physicist maintains contact with the Bureau of Disaster Preparedness (BDP) via vehicle radio as he travels to the FP&L near-site Emergency Operations Facility or the Dade County Emergency Operations Center. Once at that location, he uses the available communications there. Contact is maintained with the Mobile Emergency Radiological Laboratory by the Bureau of Disaster Preparedness (BDP) via Local Government Radio.

4.3 Metropolitan Dade County Disaster Preparedness Coordinator

Initial Notification

The Dade County Disaster Preparedness Coordinator is initially notified via the same NAWAS communication used to notify the Bureau of Disaster Preparedness. NAWAS is monitored on a 24-hour basis by the Dade County Department of Public Safety. The Disaster Preparedness Coordinator can then be reached by telephone or by dispatching a patrol car. Also, the Duty Warning Officer at the Bureau of Disaster Preparedness's Warning Point is responsible for transmitting the emergency notice to the Dade County Diasaster Preparedness Coordinator.

Communication

The Dade County Disaster Preparedness Coordinator proceeds to the Dade County Emergency Operations Center and uses the communication channels available there. These include NAWAS, RACES, Local Government Radio, teletype, police and fire nets, and 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 certain events by direct "hot-line" (Off-Premises Extension) from the Control Room. The notifications are made in accordance with Federal Regulations and approved plant procedures. The Emergency Coordinator or his designee completes this contact within one hour of the detection of an emergency.

Communications

After mobilization of the Emergency Operations Facility, communications with the NRC are thereafter handled by telephone from the Emergency Operations Facility or from FP&L's General Offices by a designee of the Emergency Control Officer.

4.4.2 U.S. Deparment of Energy

Assistance from the DOE's Radiological Assistance Plan may be obtained by telephone call from the Emergency Coordinator or his designee or by the Emergency Control Officer or his designee to the Manager of DOE's Savannah River Operations Office.

4.4.3 U.S. Coast Guard

Assistance from the Coast Guard for on-site rescue activities can be requested by telephone call from the Emergency Coordinator or his designee or the Emergency Control Officer or his designee to the Coast Guard Duty Officer.

4.4.4 Homestead Air Force Base

Assistance from the Homestead Air Force Base for on-site support activities can be requested by telephone call from the Emergency Coordinator or his designee to the Base Duty Officer.

4.5 Notification of the Public by the State/County

The State of Florida's Emergency Plan (see Appendix A) defines the state and county procedures for notifying the public in the event of an emergency.

4.6 Communications Equipment

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

Public Address (PA) System

A solid state public address system is powered from a 120V AC circuit from MCC-D breaker 0824. The alternate power supply is from LP-11 (Units 1 and 2), powered by the General Service Station MCC. A 60 ampere double pole, double throw disconnect switch is mounted behind VP-B in the Unit 3 control center for swapping power supplies as necessary.

The PA System uses noise cancelling dynamic microphone type handsets located throughout the plant. The system includes one paging channel and one party line channel. Paging can be accomplished without disturbing communications on the party line channel.

The PA System at Units 3 and 4 is completely independent of the system at Units 1 and 2. However, they can be merged so that plant-wide communications are possible.

Motor Maintenance Circuit

This is a communications circuit, separate from the PA System, but using 120V AC power from the PA System power supply source. This 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.

PAX Telephone System

A dial telephone system is installed throughout the Protected Area. The exchange for this system is located in the Units 1 and 2 cable spreading room and is powered from a 48V battery and charger arrangement at Units 1 and 2.

This telephone system incorporates a code call system. The code call system is separate for each unit. However, both code call systems are actuated from any PAX telephone in the plant and can be answered from any PAX telephone in the plant. There is also a provision for connecting a PAX telephone to the PA systems of either Units 1 & 2 or 3 & 4 for paging purposes.

Bell System Telephones

There are numerous Bell Telephone System lines connected to the plant through the switchboard in the Administration Building for normal dial telephone service. Additional lines are installed as follows: two are for telemetering and supervisory control; one is for a teletype machine; one is for a direct line to the System Operations Office, the Cutler Plant, and the Davis substation; one is for a direct line to Homestead Air Force Base; and one for a telecopier machine. The telephones connected to these lines are located in

the Administration Building, both control rooms, the Auxiliary Building, the Security stations, the I & C Building, and the Units 3 and 4 maintenance building. At night and on Saturdays, Sundays, and holidays, lines that do not require the switchboard are provided for the Units 1 and 2 Control Room, the Units 3 and 4 Control Room, selected management personnel offices, and the Main Entrance Station. This system represents the primary system for routine communication with areas outside the plant.

FM Radio System

An FM transmitter-receiver is located in the Units 1 and 2 Control Room. A microphone and speaker from this radio are located in the Unit 3 and 4 Control Room. This radio will provide back-up communications between the Turkey Point Plant, the Systems Operations Office. The System Operations Office has direct telephone lines and either direct, patch, or indirect radio contact with all the plants, radio-equipped vehicles and service centers in the Florida Power & Light Company system.

Portable Radio Transmitter-Receiver Sets

Various portable radio transmitter-receiver sets (walkie-talkies) are available to supplement the fixed communications equipment in the plant. These radios are light-weight battery operated set 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 transmitter-receiver station over a range of several miles.

Miami Area Inter-Office Dial System

Each of the several Company offices in the Miami Area has its own switchboard and telephone exchange number. There is also a tie line system whereby inter-office direct dialing can be accomplished. Offices on this system include most of the Miami Area Florida Power & Light Company offices. Each switchboard also has an intra-office direct dial system.

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, and Sarasota Counties. Beepers are regularly assigned to key personnel in the Off-Site Emergency Organization as shown on the Emergency Roster, 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 Emergency Procedure 20104, Emergency Roster.

Company Radio System

The Company radio system consists of fixed base FM radio equipment in the System Operations Power Coordinator's office, trouble dispatcher offices, service centers, and power plants, plus numerous mobile units in automobiles, trucks, and mobile service vehicles. In the event of interruption of electric service to the base radio stations, emergency power can be supplied with existing equipment.

National Warning System (NAWAS)

The NAWAS is installed in the Nuclear Plant Supervisor's office. This system uses commercial, protected telephone land lines. The initial emergency notification to the State Division of Disaster Preparedness (DDP) and the Dade County Disaster Preparedness Coordinator will be made via NAWAS unless NAWAS is inoperable, in which case notification will be made by telephone.

Local Government Radio (LGR) System

The LGR System is installed in the Nuclear Plant Supervisor's office. This system, which operates on frequencies allocated in the State Division of Disaster Preparedness (DDP), should be used to maintain communications with the DDP, the State Department of Health and Rehabilitative Services (DHRS) Mobile Emergency Radiological Laboratory (MERL), and the Dade County Disaster Preparedness Coordinator.

Off Premise Extension (OPX)

The OPX is installed in the Nuclear Watch Engineer's office, with an extension in the Control Room. This is an automatic ringing system 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 FP&L program of exercises and drills for maintaining emergency preparedness.

5. RESPONSE TO ACCIDENT CONDITIONS

Table 3-1 identifies a spectrum of events and classifies those events into three categories. The classification of each event is based on an Emergency Action Level which is the instrument reading or observation identified in the table. This section discusses the events from the standpoints of assessment and response.

5.1 Accident Assessment

Once an accident 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 in the assessment process are described below.

5.1.1 Plant Systems

The Turkey Point Plant is provided with systems for measuring radioactivity at potential effluent release points and within the primary containment buildings. The principal release point is the plant vent. A noble gas monitoring system is provided in this vent which covers the range of concentrations from normal operating conditions to 10^5 μCi/cc. The following sources of potentially contaminated air are directed to 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 noble gas detectors. These detectors would provide early indication of primary to secondary leakage.

The steam dump/safety exhausts are monitored for noble gases. Noble gas concentrations up to 1,000 μCi/cc in steam can be detected. Particulate and iodine concentrations will be deterimined 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 and if the alarm trip point on this monitor is exceeded, the blowdown is automatically diverted to the waste holdup tank in the Auxiliary building.

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

Each containment atmosphere is monitored continuously for hydrogen and for radioisotopic content by on-line systems with readout in the Control

Room and in the Technical Support Center. In addition each containment is provided with two high-range radiation monitors. These monitors are located high in the containment buildings and would measure levels up to 10^8 rad/hour. These monitors would provide an early indication of radioactivity in the containments, particularly as a result of a loss of reactor coolant to the containment building. Chemical and radioisotopic analyses of the reactor coolant is provided by an on-line system with read out in the Technical Support Center.

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 On-Site Sampling Resources

In addition to the on-line sampling systems described above, 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 to the plant laboratory on a shielded cart. At the laboratory, a portion of the gas would be drawn from the vessel, and the radioisotopic content determined by a multichannel analyzer. Plant procedures provide detailed instructions for sample acquisition, transportation, and analysis.

Reactor coolant grab samples can also be taken following an accident. Dedicated sample lines are installed which route a reactor coolant sample to an accessible, low background area. This special routing was made to avoid the necessity of an operator entering the sample room which might be inaccessible after an accident. 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 would be analyzed for pH, boron, and radioactivity. Details on sample acquisition, transportation, and analysis are included in plant procedures.

Airborne concentrations of radioiodine are detected using portable samplers. Silver zeolite sample cartridges are stored outside of the radiation controlled area (RCA). To preclude interferences by noble gas absorpotion, 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). During subsequent sampling, if charcoal filters are used for sample collection, experience has shown that noble gases absorbed by the sample media can be effectively removed by purging with clean air or nitorgen for 15-30 minutes.

Air samples will be collected using portable high volume 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).

Collected samples will be transported via the quickest possible measns to the FP&L Mobile Lab, which will be located in a low background area outside the RCA. Samples are to be analyzed by GeLi spectroscopy or, if the Mobile Lab is not available, by whole body counter. Either method will be performed in accordance with approved procedures.

5.1.3 Meteorological Systems

Meteorological data are required to make estimates of off-site 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 are collected at the Turkey Point Plant site, the Dade County site (7 miles southwest) and the Homestead Air Force Base (5 miles northwest). Table 5-1 summarizes the available data. Data which represents primary and backup sources are summarized on Table 5-2. As indicated, there are three sources for deriving the key parameters needed to make estimates of atmospheric dispersion.

As indicated in Table 5-1, values of the key meteorological parameters are provided for the Turkey Point Plant and Dade County meteorological installations. These readouts are provided at 15-minute intervals and the data are directly available at the Control Room, and the Technical Support Center.

5.1.4 Source Term and Release Determination

As discussed in Section 5.1.3. certain meteorological parameters are required for the calculation of off-site 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.

In the event of a loss of coolant accident, the containment radiation monitors would provide the first indication of the inventory of radioactivity in the containment. Additional information about the isotopic composition of the airborne radioactivity would be derived from isotopic analysis of a containment atmosphere sample. However, no direct measure of the rate of release is available from the containment.

TABLE 5-1

SUMMARY OF AVAILABLE METEOROLOGICAL DATA

Source	Data	Display
Turkey Point 10-meter tower	Wind Speed Wind Direction Sigma - θ	Digital (15 minutes averages every 15 minutes) and strip chart records
Dade County 300 Ft. Tower	ΔT (30-300 ft) Wind Speed	Digital (15 minute averages every 15 minutes)
Homestead Air Force Base (Class A NWS Station)	Wind Speed Wind Direction Cloud Cover Ceiling Height	None; via radio or telephone

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TABLE 5-2

Meteorological Parameter	Priority Source	First Backup	Second Backup
Atmospheric Stability	ΔT (Dade County Tower	Sigma - Θ (Turkey Point Tower)	Surface Observations (Homestead)
Wind Speed	Turkey Point Tower	Dade County Tower	Homestead
Wind Direction	Turkey Point Tower	Dade County Tower	Homestead

Procedures have been developed to assist the plant staff in estimating release rates and isotopic content for releases from the plant vent, the steam jet air ejectors, the steam dump valves, the main steam safety valves, and the Unit 3 spent fuel pit.

A containment release rate is conservatively estimated using a procedure based on the design leak rate at the design pressure, and/or the latest measured leak rate for the containment and the actual pressure in the containment.

5.1.5 Exposure and Dose Rate Determination

One of the uses of radiation monitors and meteorological instrumentation is the calculation of off-site radiation exposures. Two types of information are required. One type is calculated exposures in real-time (or near real-time). This information permits the initiation of a historical dose distribution both in space and time by a series of sequential calculations. The second type of information is an estimate of doses in space and time so that responsible agencies can use this information to plan protective action.

Both types of information are derived from Tables 5-3 and 5-4. These tables present whole body and thyroid dose information based on constant radioactivity release rates for seven atmospheric stability classes (A through G), three wind speeds (3, 5, and 8 mph), for distances up to 10 miles from the plant and for time out to 24 hours from the beginning of the accident.

The calculation method used is:

where $$D = Q \times X/Q \times D.C.F.$$

Q is the radioactivity release rate
X/Q is the atmospheric dispersion parameter
D.C.F. is a dose conversion factor

The atmospheric dispersion factors have been calculated in accordance with Regulatory Guide 1.145 "Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Plants" and dose conversion factors and methodology are in accordance with Regulatory Guide 1.4, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for Pressurized Water Reactors."

A plant procedure provides the details of how the tables are used for making initial dose estimates. In particular, meteorological data and radiation monitor readings are used in conjunction with the tables for estimating doses under actual conditions. Dose calculations wukk be updated periodically during the course of the accident and the results will be provided to state and county authorities for their use in evaluating the need for protective action. Refined dose estimates would be prepared by the Chemistry Department representative who reports to the Technical Support Center.

5.1.6 Off-site Monitoring

Dosimetry

The Florida Department of Health and Rehabilitative Services maintains a system of 39 TLD stations in the vicinity of Turkey Point Plant. Stations are provided in each 22.5° 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 2.3.3. The plant's on-site radiological laboratory serves as the primary facility with backup provided by a Company owned mobile van. Analysis of off-site

TABLE 5-3

WHOLE BODY DOSE

FOR ____ Ci/Sec

RELEASE RATE

TABLE 5-4

WHOLE BODY DOSE

FOR ____ Ci/Sec

RELEASE RATE

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 hours of notification.

5.2 Protective Response

This section describes the protective actions on-site, and the data provided to assist the state and county in determining appropriate off-site protective actions.

5.2.1 Protective Actions

On-site 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, decontamination as required, and re-entry to determine the magnitude and extent of the problem when it is determined to be safe to do so.

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

If needed, personnel decontamination facilities are available in four locations according to the nature of the incident.

1) Hot Locker Room - Showers and sinks available for the decontamination of personnel with no (or minor) injuries. Located in the Auxiliary Building.

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) REEF Associates - Capability exists to provide medical attention to the contaminated injury, along with decontamination activities, with highly trained and experienced nuclear medical personnel. Located at Mt. Sinai Hospital, Miami Beach, approximately 45 miles North of the Turkey Point Plant.

4) Decontamination Facility - Some capability is provided at the Florida City Substation.

Off-site areas are the responsibility of the Bureau of Disaster Preparedness of the State of Florida. Control of radioactive contamination and public safety in off-site areas are responsibilities of the Bureau of Disaster Preparedness (BDP), and their criteria for cotrolling contamination may be found in the State of Florida Radiological Emergency Plan (see Appendix A). Evacuation of the areas contaminated by the accident will be implemented if deemed necessary by the BDP and the Department of Health and Rehabilitative Services (DHRS). Surveys of the milk producing pastures and animals in the affected area will be taken if state and local officials determine this to be necessary. Decontamination of off-site areas will be performed under the direction of the DHRS.

5.2.2 On-site Warning and Response

During an emergency, the relocation of persons on-site may be required in order to prevent or minimize exposure to radiaoactive materials. Evacuation is the primary protective action anticipated for on-site personnel. An emergency evacuation is the orderly, rapid, and safe withdrawal of all personnel from an area affected by an emergency condition. The plant public address system will be used to announce evacuation orders. Announcement of an emergency situation to all on-site individuals can be accomplished in less than 15 minutes. Depending on the nature of the emergency and the extent of the area affected, on-site evacuation have been classified as either a Local Evacuation or an Owner Controlled Area Evacuation.

Local Evacuation

Definition

A local evacuation is the evacuation of personnel from a room, area, or building located within the Protected Area.

Criteria

The evacuation of an affected local area will be initiated when any of the following conditions occur:

1) Containment Evacuation Alarm.

2) Unevaluated direct radiation dose rate reading in excess of 100 mrem/hour.

3) Unevaluated airborne radioactivity concentration in excess of of 1×10^{-9} μCi/cc.

4) Removable radioactive surface contamination in an unposted area in an unposted area in excess of 1,000 dpm/100 cm^2 - or 50 dpm/100 cm^2 - , over an area of 100 ft^2.

Personnel Actions

When the containment evacuation alarm is heard or when the Emergency Coordinator makes notification over the public address system that a local evacuation has been declared, non-emergency personnel, subcontractor personnel, and visitors in the area will go to the designated assembly area and remain there for personnel accountability and monitoring.

When a local evacuation is declared, the Security Guard Force working as the Security Team will assist in personnel accounting, and be prepared to brief the Emergency Coordinator.

Plant visitors are escorted at all times by a trained person who is accountable for this. They will also be informed by their escort during any emergency of what they are expected to do during the emergency.

Precautions

Every effort will be made to minimize personnel exposure to radiation. Personnel who have been in the area of an emergency should remain in a group, and should not mix with other personnel in the assembly area until they have been monitored for possible contamination, unless they are injured. Injured personnel will be treated by the First Aid and Decontamination Control Team. Provisions exist for off-site treatment of personnel, if required (see Section 2.5).

Evacuation Implementation

The Emergency Coordinator will announce the local evacuation over the public address system, identifying the area affected, the assembly point, and other instructions as required. All personnel in the evacuated area will stop work, turn off potentially hazardous equipment and leave the area. All personnel in the evacuated area should report to the assembly area for monitoring and accountability. The Emergency Coordinator will activate Emergency Teams, as required. The Emergency Coordinator, and department supervisors and foremen having personnel working in the evacuated area, will verify that all personnel are accounted for. The Emergency Coordinator will initiate a search for personnel who have not been accounted for.

Owner Controlled Area Evacuation (Includes Protected Area)

Definition

An Owner Controlled Area Evacuation is the orderly withdrawal of all personnel from the Owner Controlled Area, including the Protected Area, except personnel required to place Fossil Units 1 & 2 and Nuclear Units 3 & 4 in a safe condition and Emergency Teams which will report to the Administrative Building for assignment. The Emergency Coordinator will sound the plant evacuation alarm and then provide further information by the public address system.

Criteria

The Owner Controlled Area will be evacuated in the event of a Site Emergency or General Emergency.

Personnel Actions

When an evacuation has been declared, the Security Team will take action according to established procedures to verify that an orderly, safe withdrawal of all non-essential personnel takes place. The members of the Security Team have been assigned specific areas of the Owner Controlled Area, outside the Protected Area, for which they are responsible for personnel notification and accountability. The assembly area for evacuated personnel from the Protected Area is the Florida City Substation, located approximately seven and one-half miles west of the plant on Palm Drive.

All personnel will be requested to remain at the assembly area monitoring until instructed otherwise.

Responsibilities

Activities and functions which take place within the Owner Controlled Area but outside of the Protected Area are the responsibility of the

Land Management Site Manager. He is responsible for normal day-to day supervision of Owner Controlled Area functions outside the Protected Area including scout camps, recreation areas, the U. S. Air Force Sea Survival School, the Belcher Oil Company, the Farm Fresh Shrimp Corporation.

The Emergency Coordinator advises the Security Team Leader of an Owner Controlled Area evacuation via the evacuation alarm or the public address system. Information needed by the Security Guard Force to properly fulfill their responsibilities during the evacuation is provided to the Security Team Leader by the Emergency Coordinator. Significant responsibilities during the evacuation include directing the evacuation movements, personnel accountability, sweeps of the recreation areas to assure evacuation, and placing the emergency signal at the boat ramp.

The U. S. Air Force will handle its own personnel accountability by normal military procedures. An agreement is in effect between the Company and the U. S. Air Force wherein the Air Force (Homestead Air Force Base) will assist in the evacuation of personnel in the area suth and east of the Protected Area.

The Farm Fresh Shrimp Corporation is responsible for providing the South Security Guard Station with a list of personnel at the installation at any given tie for accountability purposes. All personnel proceeding to this installation will check in with the Guard Station before entering and after leaving the area.

Evacuation Preparedness

All visitors, especially groups using the recreation areas, will have adequate transportation available on-site to evacuate all members of their respective groups. It is the responsibility of the Security Guard Force to ensure that this transportation requirement is met. The Land

Management Site Manager will advise appropriate scout councils, contract groups, Belcher Oil company, and the Farm Fresh Shrimp Corporation of the necessity of checking in and out with the Security Guard Force.

Escorts accompanying visitors will assure that transportation is available at all times while the visitors are on-site. Security Guards, the Land Management Site Manager, or Escorts will maintain control of groups or individuals to which they are assigned to enable all members of the groups to be located, notified, and evacuated in the event of a Site Emergency or General Emergency.

Supervisors of contractor operations with crews working in remote areas of the Owner Controlled Area, such as the cooling canal system, shall maintain communications with work crews to enable evacuation instructions to be communicated.

The Captain of the Guard, or his designee, will complete the Boat Ramp Log for each boat admitted to the ramp area. Information on this log will assist in accounting for boats and personnel who may be outside of the Owner Controlled Area when an evacuation is ordered and who must be prevented from entering the area during an evacuation.

Evacuation Implementation

When the Emergency Coordinator deterines that an evacuation of an Owner Controlled Area is necessary, he will order an Owner Controlled Area Evacuation using the public address system and the evacuation alarm. Upon hearing the evacuation order or the evacuation alarm, all non-essential personnel will evacuate to the appropriate assembly area. Emergency Teams will report to the Administration Building for assignment.

The Emergency Coordinator or his designee will notify the Security Team Leader that an Owner Controlled Area evacuation is ordered and will advise him of all pertinent information affecting the evacuation,

including priorities and/or special conditions which exist to enable the evacuation to be conducted in a safe manner.

The Security Team Leader will immediately initiate the evacuation procedures including:

1) Notification of all security patrols and tour guides of the evacuation,

2) Notification of all non-Company groups working in or using portions of the Owner Controlled Area,

3) Initiate sweeps of recreation areas and assist in personnel accountability, and

4) Establish the assembly areas and account for all persons.

Personnel Accountability, Transportation, and Exit Routes

There are several groups of individuals that may be present within the Owner Controlled Area during an emergency. The maximum population within the Owner Controlled Area is presented in Table 5-5. Detailed locations are shown on Figure 5-11.

Upon declaration of an emergency evacuation, the Security Guard Force will assist in personnel accountability in accordance with Emergency Procedures.

When an evacuation is declared, all non-essential personnel in the affected area will stop working, leave the affected area and assemble by departments in the designated assembly area.

The Emergency Coordinator will initiate a search for any personnel not accounted for.

TABLE 5-5

Maximum Population within the Owner Controlled Area

(LATER)

FIGURE 5-11

Location of Special Facilities within the Owner Protected Area

(LATER)

The picnic and beach areas and scout camps are primarily used during weekends and holidays when all other groups are operating with minimum staff. The security force on duty at any time is adequate to handle the evacuation of personnel in the Owner Controlled Area.

The estimated reaction time (time measured from the time of the accident until the initiation of evacuation - including "hosted" groups) should not exceed 30 minutes. At night or under adverse weather conditions, reaction time should be shortened since fewer persons are on site. Recreation areas, except for the scout camps and barge canal, would normally be void of personnel. Scouts would be in their immediate camp areas and barges may be in the process of unloading oil. Actual evacuation drills have shown that personnel evacuation can be accomplished within 30 minutes following notification.

The normal exit route used during an evacuation will be the same as that used for normal plant entrance. If the normal exit route is unusable, an alternate route has been established. Figure 5-11 shows both the nornal and alternate exit routes.

Procedures used by the Security Guard Force define which evacuation route(s) will be used by the various groups in the Owner Controlled Area.

5.2.3 Data Reporting to State/County

Section 2.1 of the Emergency Plan describes the Company emergency response organization and the state, local and federal agencies which may assist in an emergency at the Turkey Point Plant.

The FP&L Emergency Coordinator will make initial notification to the Bureau of Disaster Preparedness via the National Warning System (NAWAS) to the Duty Warning Officer at the State Warning Point in Tallahassee. Standard telephone serves as the primary backup system for initial notification. The initial notification includes the following information, if available:

- Name, address and telephone number of caller.

- Location of incident.

- Date/time of incident.

- Estimate of quantity of radioactive material released, or being released, and height of release.

- Chemical and physical form of released material.

- Prevailing weather if applicable:

  a) Wind velocity.
  b) Wind direction.
  c) Temperature.
  d) Atmospheric stabiity.

- Personnel status:

  a) Killed.
  b) Injured (Hospitalized).
  c) Injured (Not hospitalized).

- Estimate of projected dose at off-site locations, if applicable.

- Emergency response procedures in effect, if applicable.

The initial notification may be brief with certain information not available. Followup messages from the Emergency Coordinator to the Bureau of Disaster Preparedness (BDP) will include the required information as it becomes available.

The Bureau of Disaster Preparedness has established a call procedure and code words to authenticate emergency messages from the Turkey Point Plant.

5.2.4 Off-Site Area Evacuation

An Off-Site Area Evacuation is the orderly withdrawal of all personnel 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.

The State Bureau of Disaster Preparedness and the Dade County Disaster Preparedness Coordinator will be responsible for the direction and implementation of the necessary protective actions as specified in the Florida Radiological Emergency Plan, including notification and coordination with other state and local assistance agencies.

It will be the responsibility of the State Bureau of Disaster Preparedness and appropriate county agencies to notify the general public if an evacuation is warranted. This will be accomplished through door-to-door notification, and by the use of radio, television, and loud speakers. Individuals within the Owner Controlled Area will be notified by Company personnel as previously discussed.

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.

1) Efforts should be made to limit radiation exposures to the quarterly exposure limits established for routine operations. Shorter stay times and portable shielding should be used when possible to minimize personnel exposures.

2) Higher than normal exposures (i.e., greater than permited by 10CFR20) should not be authorized in advance of a potentially hazardous action unless the Emergency Coordinator or one of his superiors specifically approves the action. The Emergency Coordinator's approval of high exposure will be based on a reasonable consideration of risks and benefits.

3) Emergency workers should consist of healthy adults and should not include women of child bearing age. Men older than 45 years should be selected first.

4) Respiratory protection should be provided to emergency workers whenever there is a potential for airborne radioactivity being present at the assigned location.

5) More frequent than normal checking of monitors and dosimeters is encouraged during emergency operations.

6) Whole body exposure limits have been established as follows:

   - A planned emergency whole body dose to prevent destruction of equipment which could result in serious injury or to assess a potentially critical situation should not exceed 12 rem.

- When immediate action is necessary to prevent serious injury, dose to the whole body should not exceed 25 rem. Events in this category include removal of incapacitated personnel from high radiation areas, providing emergency medical treatment including first aid and decontamination of individuals.

- For lifesaving actions, an individual may receive a whole body dose of 100 rem. Because of the health risks associated with the dose limit, lifesaving missions should be undertaken by volunteers who have an understanding of the health risks and preferentially by those whose normal duties have trained them for such missions.

7) The assignment of personnel other than those employed by FP&L to a task which may involve a radiation exposure greater than 10CFR20 occupational exposure limits requires the approval of the Emergency Coordinator or one of his superiors.

5.3.2 Dose Records

All emergency response personnel under the authority of FP&L 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 a direct reading dosimeter and a TLD badge either at the plant entry location or at the Emergency Operations Facility, depending on the duty to which the individual has been assigned.

The Company has round-the-clock capability for determining radiation exposures. Dose records for all affected personnel will be maintained. The program is carried out in accordance with Corporate Health Physics procedures.

5.3.3 Contamination Control and Decontamination Procedures

A personnel decontamination washroom and shower room with chemical decontamination agents is provided on the ground floor of the Auxiliary Building. Except in cases of serious injury, accepted decontamination practices will be employed on-site. 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 REEF at the designated facilities at Mount Sinai Hospital, or by SFEP in the Emergency Room at Baptist Hospital.

Any item of equipment, once having been taken inside a controlled area, requires a survey for possible contamination prior to its removal from the controlled area. Equipment can only be released from a controlled area if the levels of contamination are within the limits of the clean area. Equipment regularly required within a controlled area will be maintained within the controlled area. Due to the rigid radiological controls, it is not considered likely that contaminated equipment will inadvertently be taken off-site. Should contaminated equiment be discovered, it will be stored and either decontaminated or disposed of in accordance with plant procedures.

Areas within the plant or items suspected of contamination will be checked before normal use is permitted. Laboratory analysis of swipes will be undertaken and an area or item will be declared suitable for normal use if contamination levels are less than 1,000 dpm/100cm^2.

Food for emergency workers would be brought in from off-site, if necessary. The plant drinking water is obtained from the Homestead water supply about ten miles away. It is unlikely that ingestion of contaminated food or water will occur.

5.4 Recovery and Re-entry

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 should be controlled and personnel exposures should be documented.

The Emergency Control Officer has the responsibility for determining and declaring when an emergency situation is stable and has entered the recovery phase. He will evaluate the status of the emergency by observing monitoring instrumentation and reviewing all current and pertinent data available from emergency response and/or monitoring teams. They will consider the emergency to be under control in the recovery phase only when the following general guidelines are met:

1) Radiation levels in all in-plant aras 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 shut down and in a stable condition.

At the time of declaring that an emergency has entered the recovery phase, the Emergency Control Officer will be responsible for informing all applicable agencies (e.g., federal, state, and local agencies) that the emergency has shifted to a recovery phase. At that time, the Emergency Control Officer will implement FP&L's Recovery Response Organization.

Recovery actions that plan for or may result in radioactive release will be evaluated by the Emergency Control Officer and his staff as far in

advance of the event as is possible. Such events and data pertaining to the release will be reported to the appropriate off-site 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 th emergency or hazardous condition.

4) To determine the nature and extent of the emergency and/or radiological conditions.

5) To establish definite personnel exclusion area boundaries.

Re-entry will take place only under the authority of the Emergency Coordinator or the Emergency Control Officer. The leaders of the Radiation Team and/or the Fire Team are responsible for evaluating the existing emergency conditions and informing the Emergency Coordinator or the Emergency Control Officer of the advisability of re-entry. For emergencies inside the RCA the Radiation Team Leader will supervise the initial entry of the Emergency Teams and all subsequent entries until radiation areas have been properly marked.

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

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

The State of Florida Bureau of Disaster Preparedness and the Metropolitan Dade County Civil Defense Division have the responsibility for conducting the public information program. Florida Power & Light Company will provide support for the program by supplying information requested by those agencies.

6.2 Florida Power & Light Company Emergency Communications Program

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

6.2.1 Organization

The members of the emergency communications organization (see Figures 6-1 and 6-2) and their respective responsibilities are as follows:

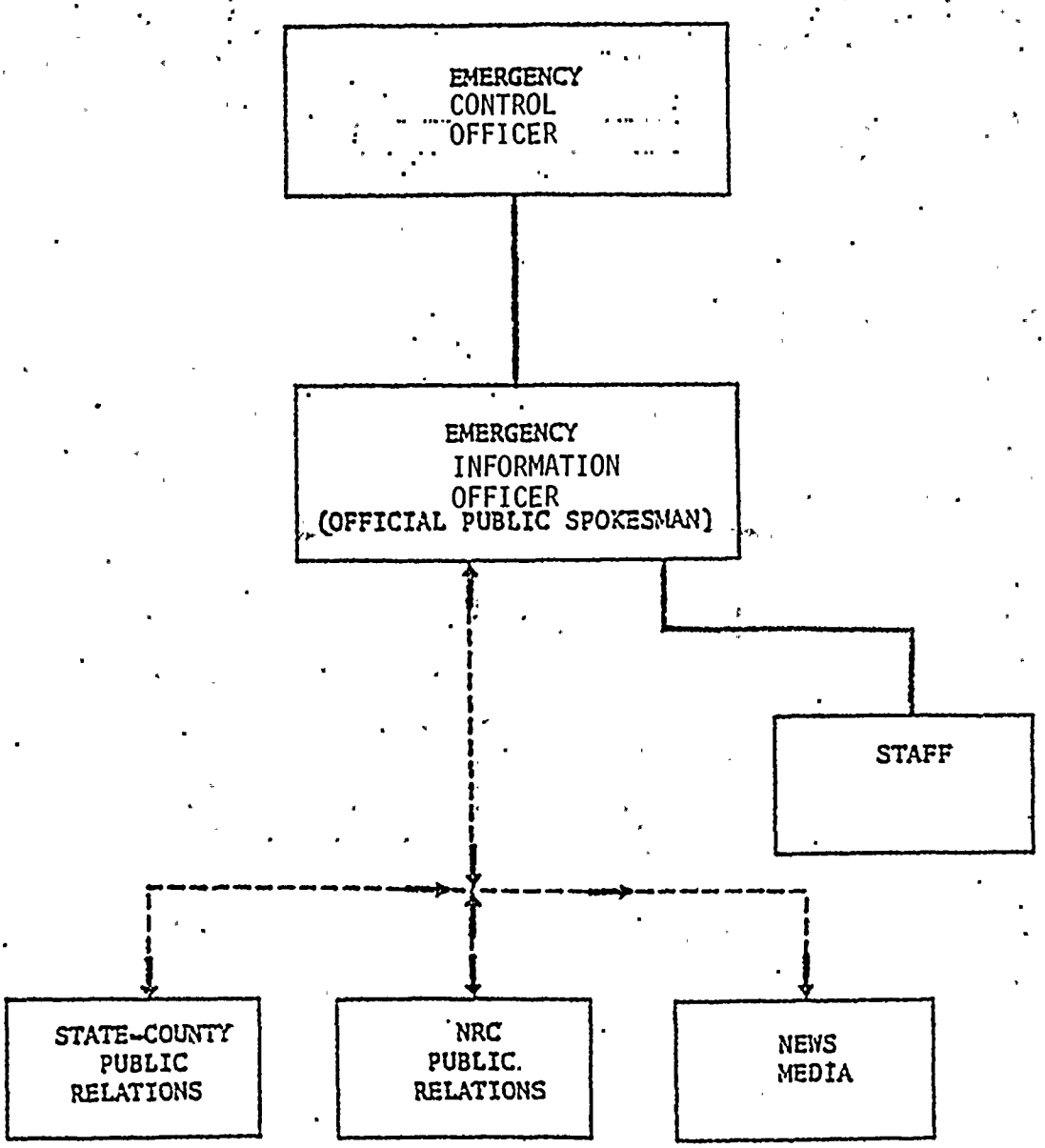
- Emergency Information Officer

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

company officials to develop formal statements and responses. All press releases, other than routine "updating" of data coming from the Emergency Operations Facility, should originate with or be cleared by the EIO.

FIGURE 6-1

COMMUNICATIONS INTERFACES



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Nuclear Information Staff

A staff of communications 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 daily newsletter, bulletin board statements, telephone recordings, TWX's to district offices, or other in-place networks.

3) Inform the industry, especially the Atomic Industrial Forum, through the AIF INFOWIRE network, and the Edison Electric Institute, so that other companies both in the United States and overseas can deal with questions as they arise from their local media.

4) Provide recorded material for the electronic media, possibly through recorded messages over an established telephone line.

5) Prepare background material for features, historical context, profiles, etc.

6) Handle the photographic needs of the company, in terms of documenting the incident.

7) Tape and transcribe all press conferences and other official proceedings for the benefit of company management and official agencies.

8) Accredit and escort members of the press.

9) Provide stenographic and typing services for news releases, photo captions, reports, transcripts, etc.

10) Provide reference services for maintaining files of releases and photos, obtaining newspapers, monitoring wire services and news broadcasts, etc.

The staff of the Florida Power & Light Company Corporate Communications Department may be augmented by personnel from other utilities, consultants, or universities. Prior arrangements have been made to secure these services.

6.2.2 Emergency News Center (ENC)

The Turkey Point Plant Emergency News Center (ENC) will be located (to be provided later). The Emergency Information Officer and his staff will man the ENC if 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, the news media will be provided space in the Emergency News Center for work and interview purposes.

The Emergency Information Officer will conduct joint news conferences with appropriate communications representatives from the NRC and state and local agencies.

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 FP&L emergency preparedness organization. An exercise includes mobilization of state and local governmental personnel and resources adequate to verify the capability to respond to an accident scenario. An exercise may be evaluated by federal, state, and local observers/evaluators.

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 corrective action to eliminate identified deficiencies.

7.1.3 Planning

The Florida Power & Light Company Emergency Plan Administrator will be responsible for the planning, scheduling, and coordinating of all emergency drills or exercises involving offsite agencies. The Operations Superintendent-Nuclear will have the same responsibility for all onsite emergency drills. All exercises and drills involving the plant are subject to the approval of the Plant Manager-Nuclear.

When a major exercise is to be conducted, the Emergency Plan Administrator will:

1) Schedule a date for the exercise.

2) Request that the Operations Superintendent-Nuclear assign personnel to prepare a scenario.

3) Coordinate efforts with other participating personnel, organizations, and agencies.

4) Obtain the approval of the Plant Manager-Nuclear.

5) Offer federal, state, and local observers the opportunity to evaluate the exercise.

6) Discuss and evaluate the exercise with observers and principal participants.

7) Ensure that deficiencies are corrected.

8) Prepare and retain documentation for recordkeeping.

When a major drill is to be conducted, the Plant Manager - Nuclear will assure that the following is accomplished:

1) Assign personnel to prepare a scenario.

2) Coordinate efforts with other participating personnel, organizations, and agencies.

3) Obtain the approval of the Plant Manager-Nuclear.

4) Schedule a date for the drill and assign observers.

5) Review evaluations of drill with the observers.

6) Ensure that deficiencies are corrected.

7) Prepare and submit documentation to the Emergency Plan Administrator for recordkeeping.

Scheduled exercises and drills will involve appropriate personnel, organizations, and agencies. These exercises and drills will simulate actual emergency conditions and may be scheduled such that one or more exercises or drills can be conducted simultaneously. The Emergency Plan Administrator will normally notify the off-site emergency response organizations and agencies at least 30 days in advance of the scheduled date of an exercise.

Exercises and drills will be conducted as described below.

Exercises (Integrated Drills)

A major radiation emergency response exercise will be conducted at least once every twelve (12) months (plus or minus three months) to demonstrate the effectiveness of the Emergency Plan. This exercise will be conducted as a Site Emergency or General Emergency and will provide

for the coordination with and participation of off-site emergency response personnel, organizations, and agencies including those of federal, state, and local governments. The emergency scenario will be varied from year to year. Provisions will be made to start at least one exercise between 6:00 PM and midnight, and at least one exercise between midnight and 6:00 AM every six years.

This emergency response exercise will be critiqued by Florida Power & Light Company observers/evaluators and other observers, as appropriate, from federal, state, and local agencies.

Drills

Radiological Monitoring Drill

A radiological monitoring drill will be conducted at least once every twelve (12) months (plus or minus three months). These drills will include collection and analysis of sample media (e.g., water, air). 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.

Medical Emergency Drill

A medical emergency drill involving a simulated contaminated individual, with provisions for participation by local support services (i.e., ambulance and off-site medical treatment facility), will be conducted at least once every twelve (12) months (plus or minus three months).

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 on-site personnel and participating off-site agencies to varying fire situations. The

communication links and notification procedures are tested at least semi-annually during fire emergency drills. A postdrill critique is held after each fire drill is completed to identify possible areas for improvement in equipment and/or procedures.

Communications Drills

Communications with state and local governments within the plume exposure pathway Emergency Plan Zone (EPZ) will be tested monthly. Communications with the state and local emergency response organizations within the ingestion pathway EPZ will be tested at least every twelve (12) months.

7.1.4 Evaluation

Following an exercise, the Emergency Plan Administrator, plant management, FPL observers, 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. Plant management will be responsible for any necessary changes in the Emergency Procedures and for recommending changes in the Emergency Plan to the Emergency Plan Administrator. Recommended changes in the Emergency Plan will be incorporated into the Emergency Plan under the direction of the Emergency Plan Administrator.

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 and 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.

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

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

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

The Turkey Point Training Supervisor is responsible for the conduct and documentation of initial training and periodic retraining programs for on-site FP&L emergency organization personnel, except Emergency Teams. Emergency Team Leaders are responsible for training team members and reporting the conduct of such training to the Training Supervisor.

The FP&L Emergency Plan Administrator is responsible for the conduct and documentation of initial training and periodic retraining for off-site FP&L emergency organization personnel.

7.2.3 Initial Training

Each new employee permanently assigned to work at the Turkey Point Plant shall be given initial orientation training, in the Emergency Plan and Procedures. For employees not assigned specific responsibility or authority under the Emergency Plan or Procedures, such 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 the action to be taken on hearing those alarms.

Training and periodic retraining programs will be provided in the following categories.

7.2.3.1 Response Organization Directors and Coordinators

7.2.3.1.a Emergency Coordinator (Nuclear Plant Supervisor)

a) Interpretation of plant and field data and how it relates to emergencies and their classification (i.e., emergency action level determination determination per Chapter 3).

b) Prompt and effective notification methods, including the types of communication systems.

c) Method of activating the Florida Power & Light Company Emergency Organization.

d) The methods used for estimating radiation doses.

7.2.3.1.b Other Operational Assistance

a) Emergency Plan familiarization.

b) Emergency implementing procedures familiarization.

c) Communications and recordkeeping methods.

d) Shift relief policy and operations during an emergency.

7.2.3.2 Accident Assessment Personnel

7.2.3.2.a Technical Support Center On-Site Staff

a) Emergency Plan familiarization.

b) Emergency implementing procedures familiarization.

c) Communications and recordkeeping methods.

d) Training for the various technical engineers that make up the TSC staff with emphasis on accident assessment and corrective action.

7.2.3.2.b Shift Technical Advisor

a) Emergency Plan familiarization.

b) Emergency implementing procedures familiarization.

c) Technical Specifications (in-depth understanding).

d) Specialized training in power plant and reactor specific core operating characteristics (normal and abnormal).

e) Familiarization with other related Turkey Point Plant programs, plans, and procedures with emphasis on accident assessment techniques.

7.2.3.3 Emergency Response Teams

7.2.3.3.a Emergency Team Leaders

The Emergency Teams are identified and described in Chapter 2. The Emergency Team Leaders and their alternates conduct applicable training sessions annually. The training sessions are focused on the duties and responsibiities of the specific team. Communications and coordination with other Emergency Teams are emphasized.

7.2.3.3.b Radiological Monitoring Teams

a) Use of air sampling equipment.

b) Performance of contamination surveys.

c) Determination of air activity levels.

d) Determination of radiation levels.

e) Emergency Plan familiarization.

f) Communications and recordkeeping methods.

g) In-depth knowledge of personnel and field monitoring/analyzing techniques.

h) Responsibilities of the Emergency Radiation Team.

7.2.3.3.c Security Personnel

a) Emergency Plan familiarization.

b) Personnel accountability procedures.

c) Site ingress and egress control procedures.

d) Deployment of Security Personnel.

e) Communications methods.

7.2.3.3.d First Aid/Decontamination Team

a) Emergency Plan familiarization.

b) Emergency implementing procedures familiarization.

c) Communications methods.

d) Description, storage location, and application of supplies and equipment.

e) Sequential steps for the assessment of personnel injury and contamination levels.

f) Allowable and advisable radiation environments and exposures.

g) Review of personnel decontamination procedures.

h) All Team members will satisfactorily complete the American National Red Cross Multi-Media First Aid Course and will requalify every three years.

7.3 Planning Effort Development

7.3.1 Review Procedure

The Emergency Plan and Emergency Procedures will be under continuing review by the Florida Power & Light Company Emergency Plan

Administrator. Notification lists and rosters will be updated periodically. Revisions of the Emergency Plan, Emergency Procedures, and notification lists will be distributed, as needed, to holders of these documents.

The Plant Nuclear Safety Committee will conduct periodic reviews of Emergency 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. The Committee will send an informational copy of recommended changes to the Chairman of the Company Nuclear Review Board. Recommended changes to the Emergency Plan will be submitted to the Emergency Plan Administrator. Changes in the Emergency Plan that are approved by the Vice President- Power Resources will be incorporated into the Emergency Plan under the direction of the Emergency Plan Administrator.

Document holders (e.g., FP&L, state, local, and federal agencies, etc.) will receive revisions to the Emergency Plan and Emergency Procedures as they are issued. The Emergency Plan Administrator is responsible for coordinating the periodic reviews of the Emergency Plan. In addition, the Emergency Plan Administrator, 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 and Emergency Procedures.

7.3.2 Review of Changes by On-Site Personnel

Emergency Team Leaders will inform their team members of relevant changes in the Emergency Plan and Emergency Procedures.

7.3.3 Review of Changes by Off-Site Personnel

Periodic correspondence and/or meetings will be held to inform off-site FP&L 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 FP&L Quality Assurance Department at least once every two years. Audits will verify compliance with federal regulations and Operating License provisions.

Plant management, the Emergency Plan Administrator, and the Manager - Power Resources Nuclear will evaluate the audit findings and recommend corrective actions to the Vice President-Power Resources.

7.3.5 Document Distribution

The Quality Control Supervisor is responsible for distribution of the Emergency Plan to on-site personnel. The Emergency Plan Administrator is responsible for Emergency Plan distributions to off-site agencies and organizations.

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 J contains a listing of the pertinent Emergency Procedures.