



TURKEY POINT NUCLEAR POWER PLANT AFTER ACTION REPORT

(FINAL)

**February 23, 2011
Radiological Emergency Preparedness (REP) Program**



Published April 2011

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Administrative Handling Instructions

1. This After Action Report (AAR) for the 2011 Turkey Point Nuclear Power Plant (TPNPP) Radiological Emergency Preparedness, Plume Phase Emergency Planning Zone (EPZ) Exercise is considered a public document.
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Executive Summary

On February 23, 2011, the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) Region IV, Radiological Emergency Preparedness (REP) Program staff evaluated a plume exposure pathway exercise in the Emergency Planning Zone (EPZ) around the Turkey Point Nuclear Power Plant (TPNPP). It is located on the shore of Biscayne Bay, approximately 25 miles south of the City of Miami, and 7 miles north of the Monroe and Miami-Dade County line.

FEMA's overall objective for the exercise was to assess the level of State and local preparedness in responding to a radiological emergency at TPNPP. This report analyzes exercise results, identifies strengths to maintain and build upon, identifies potential areas for further improvement and supports development of corrective actions.

This exercise was conducted using the Homeland Security Exercise and Evaluation Program (HSEEP) methodology under current FEMA's policies and guidance. The ability of state and local response agencies was tested with regard to implementation of Radiological Emergency Response Plans (RERP). The evaluation team conducted this exercise using Homeland Security Exercise and Evaluation Program (HSEEP) methodology. The previous Federal-evaluated exercise for this site was conducted on February 18, 2009.

The specific objectives State and local agencies demonstrated were:

- **Objective 1:** Demonstrate the ability to provide emergency operations center management including direction and control through the State and counties Emergency Operations Centers (EOC).
- **Objective 2:** Demonstrate the ability to provide protective action decision-making for State and county emergency workers and the general public through exercise play and discussions of plans and procedures.
- **Objective 3:** Demonstrate the ability to physically implement protective actions for State and county emergency workers and the general public through exercise demonstration and discussion of plans and procedures.
- **Objective 4:** Demonstrate the ability to activate the Prompt Alert and Notification utilizing the Emergency Alert System (EAS) through exercise play.
- **Objective 5:** Demonstrate the effectiveness of plans, policies and procedures in the Emergency News Center (ENC) for joint (public and private sector) emergency information communications.

Their objectives reflect the REP Program Exercise Evaluation Criteria as negotiated in the Extent of Play Agreements (EOPA).

The evaluation of Out-of-Sequence (OOS) activities conducted January 18-21, 2011 is included in this report.

State and local organizations successfully demonstrated knowledge of their emergency response plans and procedures and their ability to implement them. No Deficiencies or Areas Requiring Corrective Action (ARCA) were identified.

FEMA acknowledges the exceptional efforts of the many individuals who planned, prepared for and participated in this exercise. The enthusiasm, cooperation, and teamwork displayed by all participants highlighted the obvious training and preparation invested in this successful demonstration.

FEMA will provide identified strengths and areas for improvement to the State of Florida under separate cover. Those documents will be designated For Official Use Only (FOUO) in compliance with the HSEEP standards.

Section 1: Exercise Overview

1.1 Exercise Details

Exercise Name

2011 Turkey Point NPP REP Evaluated Exercise

Type of Exercise

Full-Scale Exercise

Exercise Out of Sequence/Off Scenario Dates

January 18-21, 2011

Exercise Date

February 23, 2011

Locations

See Appendix E for a complete listing of locations of supported exercise activities.

Sponsors

Florida Power and Light
 9250 West Flagler Street
 Miami, Florida 33174

Program

FEMA REP Program

Mission

Response

Capabilities

- Emergency Operations Center Management
- Emergency Public Information and Warning
- Citizen Evacuation and Shelter in Place
- Emergency Public Safety and Security Response
- Hazardous Materials Response and Decontamination

Scenario Type

REP, Full Plume Phase EPZ

1.2 Exercise Planning Team Leadership

See Appendix F for a listing of the members of the exercise planning team leadership.

1.3 Participating Organizations

The following agencies, organizations and units of government participated in the February 23, 2011 TPNPP REP Exercise.

State of Florida
External Affairs
Florida Department of Health <ul style="list-style-type: none"> • Bureau of Radiation Control • Agency for Health Care Administration (verify this)
Florida Division of Emergency Management
Florida Highway Patrol
Florida Department of Education <ul style="list-style-type: none"> • Agriculture Extension
Florida Department of Transportation
Florida Department of Children and Families
Florida National Guard
Risk Jurisdiction – Miami-Dade, FL
Miami-Dade Animal Services
Miami-Dade Environmental Resources Management
Miami-Dade Fire and Rescue

Homeland Security Exercise and Evaluation Program (HSEEP)

AAR

2011 Turkey point Nuclear Power Plant REP Exercise

Miami-Dade Police Department <ul style="list-style-type: none"> • Homestead Divisional • Schools Division
Miami-Dade Corrections
Miami-Dade Department of Emergency Management
Miami-Dade Health Environment <ul style="list-style-type: none"> • Health/Medical
Miami-Dade Public Schools <ul style="list-style-type: none"> • Operations • Transportation
Miami-Dade Transit
Miami-Dade Water and Sewer
Risk Jurisdiction – Monroe County, FL
Key Largo Ambulance
Monroe Administration
Monroe Emergency Management Agency
Monroe Health Department
Monroe Public Works Department
Monroe Sheriff’s Department
Monroe Public Works
Tavernier Fire Department
Florida Keys Aqueduct Authority
Private/Non-Governmental/Community Organizations
American Red Cross
Salvation Army
Ocean Reef Department of Public Safety
Federal Government
Department of Homeland Security
Department of Justice <ul style="list-style-type: none"> • Federal Bureau of Investigation
Department of Interior <ul style="list-style-type: none"> • National Park Service
National Oceanographic and Atmospheric Administration <ul style="list-style-type: none"> • National Weather Service (Key West)
Private Company
Florida Power and Light

Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

DHS FEMA administers the REP Program pursuant to the regulations found in Title 44 Code of Federal Regulations (CFR) parts 350, 351 and 352. 44 CFR 350 codifies 16 planning standards that form the basis for radiological emergency response planning for licensees and State, local, and tribal governments impacted by the EPZs established for each nuclear power plant site in the United States. 44 CFR 350 sets forth the mechanisms for the formal review and approval of State, local, and tribal government RERPs and procedures by DHS FEMA. One of the REP program cornerstones established by these regulations is the biennial exercise of offsite response capabilities. During these exercises State, local, and tribal governments demonstrate their abilities to implement their plans and procedures to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

The results of this exercise, together with the review of the RERPs and procedures and the verification of the periodic requirements set forth in NUREG-0654/FEMA-REP-1 through the Annual Letter of Certification (ALC) and staff assistance visits, enable FEMA to provide a statement with the transmission of this final After Action Report to the U.S. Nuclear Regulatory Commission (NRC) that State, local, and tribal plans and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency, and (2) capable of being implemented.

The Florida Division of Emergency Management (FLDEM) participated in this exercise at the Miami-Dade EOC, State Emergency Operations Center (SEOC) and Florida Power and Light (FPL) Emergency Operations Facility (EOF) in Miami-Dade, FL.

The State of Florida formally submitted the Radiological Emergency Response Plans (RERP) for the Turkey Point NPP to FEMA Region IV on August 26, 1983. FEMA approved the plans pursuant to 44 CFR 350 on February 15, 1984. The qualifying emergency preparedness exercise was conducted on February 10, 11 and 12, 1982.

This REP exercise was evaluated on February 23, 2011 and included evaluations from the following OOS activities in Miami-Dade, Florida held on January 18-21, 2011:

- Protective actions for schools

2.2 FEMA Exercise Objectives and Capabilities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all FEMA Region IV REP Program

objectives and observations in this exercise.

- **Emergency Operations Center Management:** Is the capability to provide Multi-Agency Coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.
- **Emergency Public Information and Warning:** Is the capability that includes public information, alert, warning and notification. It involves developing, coordinating, and disseminating information to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines effectively under all hazard conditions.
- **Citizen Evacuation and Shelter in Place:** Is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population (and companion animals), and the organized and managed evacuation of the at-risk population (and companion animals) to areas of safe refuge in response to a potentially or actually dangerous environment. In addition, this capability involves the safe reentry of the population where feasible.
- **Emergency Public Safety and Security Response:** Is the capability to reduce the impact and consequences of an incident or major event by securing the affected area, including crime and incident scene preservation issues as appropriate, safely diverting the public from hazards, providing security support to other response operations and properties, and sustaining operations from response through recovery. Public Safety and Security Response requires coordination among officials from Law Enforcement (LE), Fire and Emergency Medical Services (EMS).
- **Hazardous Materials Response and Decontamination:** Is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources or contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures.

Additionally, each capability is linked to several corresponding activities and tasks to provide additional details. Based upon the identified exercise objectives, the following capabilities and associated activities are:

- **Objective 1:** Demonstrate the ability to provide emergency operations center management including direction and control through the State and county EOCs.
 - **Capability: EOC Management** – Activate EOC/Multi-Agency Coordination Center (MACC)/ Initial Operating Facility (IOF); Direct EOC/MACC/IOF Tactical Operations; and Provide EOC/MACC/IOF Connectivity

- **Objective 2:** Demonstrate the ability to provide protective action decision-making for State and County emergency workers and the general public through exercise play and discussions of plans and procedures.
 - **Capability: EOC Management** – Gather and Provide Information; Identify and Address Issues; and Support and Coordinate Response
 - **Capability: Emergency Public Information and Warning** – Manage Emergency Public Information and Warnings; Activate Emergency Public Information, Alert and Warning, Notification Plans and Issue Emergency Warnings

- **Objective 3:** Demonstrate the ability to physically implement protective actions for State and county emergency workers and the general public through exercise demonstration and discussion of plans and procedures.
 - **Capability: EOC Management** – Direct EOC Tactical Operations; Gather and Provide Information; and Identify and Address Issues
 - **Capability: Emergency Public Safety and Security Response** – Activate Public Safety and Security Response; Control Traffic, Crowd, and Scene; and Command and Control Public Safety and Security Response Operations
 - **Capability: Citizen Evacuation and Shelter-in-Place** – Direct Evacuation or In-Place Protection Operations; Activate Evacuation or In-Place Protection; Implement Evacuation Orders for General Population; Collect and Evacuate Population Requiring Assistance
 - **Capability: Hazardous Materials Response and Decontamination** – Direct Hazardous Material Response and Decontamination Tactical Operations; Activate Hazardous Material Response and Decontamination; Assess Hazard and Evaluate Risk; and Conduct Decontamination and Clean-up and Recovery Operations

- **Objective 4:** Demonstrate the ability to activate the Prompt Alert and Notification System utilizing the PNS and EAS System through exercise play.
 - **Capability: Emergency Public Information and Warning** – Manage Emergency Public Information and Warnings; Activate Emergency Public Information, Alert and Warning, Notification Plans; and Issue Public

Information.

- **Objective 5:** Demonstrate the effectiveness of plans, policies and procedures in the ENC for joint (public and private sector) emergency information communications.
 - **Capability: Emergency Public Information and Warning** – Establish an ENC; Conduct ENC operations; Issue Public Information, Alerts, Warnings, and Notifications; Conduct Media Relations; and Provide Public Rumor Control.

2.3 Scenario Summary

The exercise was based on the following scenario of plant events provided by the licensee. Times were for planning purposes only.

The scenario begins with a vehicle fire at the Unit 4 lay down area. Upon arrival at the scene the fire brigade determines that the fire has not resulted in visible damage to any structures or equipment.

The vehicle driver is discovered to have minor injuries and medical assistance will be requested. The victim will not require offsite medical attention. Due to the size and difficulty of the fire, offsite response should be requested and may be simulated. The Shift Manager should declare an Unusual Event per HUI. The fire will be extinguished by the fire brigade after approximately 25-30 minutes.

After the fire is out a Reactor Coolant System (RCS) leak will develop and will be greater than the maximum charging capacity with letdown isolated. The Emergency Coordinator (Shift Manager) should declare an ALERT per FAI due to loss or potential loss of RCS. The reactor will be manually tripped.

The Emergency Coordinator will determine that it is necessary to activate emergency response facilities. The Duty Call Supervisor will be notified to activate the Emergency Response Organization. The Charlie team will respond and staff emergency facilities.

Safety Injection will be initiated. MOV-3-864B will block flow from the Refueling Water Storage Tank (RWST) due to a mechanical failure of the valve. Safety Injection pumps will trip shortly afterwards. Hydraulic shock from the reactor trip will create a fuel element failure. Containment Building Radiation Monitors (RD-1401, -1402, and -1403) will start to increase.

Emergency response teams will be dispatched to determine the reason for the lack of flow from the RWST.

Approximately 90 minutes after the reactor trip containment radiation levels have continued to rise and the size of the RCS leak increases. Conditions are met for the Emergency Coordinator to declare a SITE AREA EMERGENCY per FSI due to loss or

potential loss of any two barriers.

As the event continues, reactor core temperatures and Containment High Range Radiation Monitor (CHRRMS) readings will increase with corresponding fuel clad degradation.

Approximately 90 minutes after SAE conditions are met, a Containment Purge Valve begins to leak with a corresponding increase in the Plant Vent SPING to greater than 3.0uCilcc. Conditions are met for the Emergency Coordinator to declare a GENERAL EMERGENCY per FGI due to loss of any two barriers and loss or potential loss of the third OR per RGI due to a valid reading on the Plant Vent SPING greater than 3.0uCilcc.

Default PARS will be generated based on severe core damage plant conditions unless dose projection data is available to support notification within 15 minutes of the GE declaration.

Field teams will be dispatched to measure and track the plume. Emergency response teams will continue to attempt to establish cooling to the reactor and evaluate the release and its impact. Once a dose projection has been completed, additional PARS will be generated based on the radiological release data. The release to the environment will last for 28 minutes at which time the Purge Valve leak will stop without intervention from emergency responders.

If Emergency response teams can find that the disc from MOV-3-864B is blocking flow from the RWST they may have time to establish flow from the RWST and initiate core cooling prior to the end of the exercise.

The exercise will be terminated when exercise objectives have been met.

Section 3: Analysis of Capabilities

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the February 23, 2011 plume phase exposure EPZ exercise and OOS interviews and demonstrations on January 18-21, 2011 and February 23, 2011.

3.2 Evaluation Summaries

3.2.1 State of Florida

3.2.1.1 State Emergency Operations Center

Emergency Operations Center Management Capability Summary:

The Florida State Emergency Operations Center (SEOC) was activated and provided risk counties all necessary support to assist staff in the overall mission to protect life and property. Personnel were alerted and mobilized in a timely manner to activate the SEOC from a cold call out to having all major Emergency Support Functions (ESF) positioned in 48 minutes. The State Emergency Response Team (SERT) Chief at the SEOC demonstrated command and control throughout the exercise. Numerous briefings kept staff up to date on conditions at the site as well as risk counties and the Florida Incident Management Team (IMT). Communications in and out of the SEOC were clear and well understood throughout the exercise. Mission assignments and other requests were received and promptly acted upon. The SERT Chief also reviewed the identified protective actions developed by the IMT and risk counties to ensure no areas were missed, or given an inappropriate protective action. The SEOC had sufficient equipment and supplies to support emergency operations. Numerous large screens displayed on the front and side walls were used to project national and local news, weather, Emergency Notification Forms (ENF), electronic maps and internal information systems which provided situational awareness, and current status information.

For this capability, the following REP criteria were MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2 and 3.b.1.

Emergency Public Information and Warning Capability Summary:

Staff members demonstrated complete competence and confidence in their responsibilities, and familiarity with operational plans and procedures. They exhibited a broad understanding of how best to employ resources in identifying and addressing immediate needs and implementing established programs. Procedures included coordination with internal and external agencies, media outlets, the general public and acting on mutual aid agreements with other Statewide Public Information Officers (PIO) for material and personnel resource support. The PIO explained how rumor control would be accomplished. They managed and notified internal and external resources, interested parties, and managed the Florida Emergency Information Line (FEIL), a 24

hour public inquiry hotline. Questions were answered and forwarded to appropriate agencies as accurate information became available. Attempts were made to establish trends and resolve inaccurate information. During the exercise, the State External Affairs Office (ESF-14), supported the SEOC, and published and posted five press releases with no observed shortcomings.

For this capability, the following REP criteria were MET: 5.a.1, 5.b.1

3.2.1.2 Florida Incident Management Team

Emergency Operations Center Management Capability Summary:

Direction and control by the Florida IMT at the EOF was proactive, responsive and smooth. Cooperation and participation was evident among state and county decision-makers. The Emergency Management Directors (EMD) focused on their communities and projected this attribute at all times in the protective action decision-making process. The utility provided Protective Action Recommendations (PAR) on a timely basis. The State Coordinating Officer (SCO) facilitated decision meetings which allowed risk county decision-makers to quickly reach independent, coordinated decisions.

This newly activated facility was adjacent to both the utilities recovery operations room and the ENC. It was well designed with ample space and infrastructure to accommodate the mission.

Communications were challenged throughout the exercise. Wireless connectivity to the internet failed at the beginning of the exercise but was rapidly replaced by connection to a wired network. In the Decision Room, conference calls to risk county EOCs failed intermittently for a variety of reasons but were seamlessly replaced by a combination of hand-held radios and agency supplied cell phones.

Constant focus on unfolding events by the SCO, BRC and county decision-makers helped ensure public safety.

For this capability, the following REP criteria were MET: 1.a.1, 1.c.1, 1.d.1 and 1.e.1.

3.2.1.3 Dose Assessment

Hazardous Materials Response and Decontamination Capability Summary:

The State BRC successfully demonstrated the ability to assess the consequences of a hazardous materials release.

The FPL EOF in Miami, Florida, served as the interface between the utility and the responding State and local government organizations. Consistent with the State of Florida's Concept of Operations, as specified in the State's RERP, the Florida IMT was deployed directly to the EOF and was authorized to make administrative and technical decisions on behalf of the Governor. Similarly, senior BRC staff members also deployed to the EOF and were responsible for conducting independent accident analyses to include

radiological dose assessment, development of PAR to protect the health and safety of the public and emergency workers, providing direction and control for the State of Florida BRC FTs, and serving as the technical advisor to the Florida IMT.

The BRC performed independent accident analyses, utilizing all available information and resources to factor into the development of protective actions. This included the State of Florida BRC FTs data, the RASCAL dose projection computer model, plant status and associated technical information and recommendations developed and provided by the utility operator.

The utility also performed dose modeling by utilizing their in-house Class A Computer Model. While some variation in plant condition assumptions were input into the dose models, both the utility and the BRC concurred that the Environmental Protection Agency (EPA) Protective Action Guidelines (PAG) were exceeded at or beyond 7 miles from TPNPP. Consequently, the State and affected counties agreed upon public evacuation 5 miles around TPNPP and 10 miles downwind in Sectors R, A, and B.

The BRC successfully demonstrated its capability to effectively conduct independent accident analyses in a manner consistent with the preservation of public and emergency worker health and safety.

For this capability, the following REP criteria were met: 1a1, 1c1, 1d1, 1e1, 2a1, 2b1, 2b2.

3.2.1.4 State of Florida BRC Field Teams

Hazardous Materials Response and Decontamination Capability Summary:

This capability was successfully demonstrated by the State of Florida BRC FTs. The demonstration included conducting geographical survey searches for contamination and testing.

In accordance with the EOPA, some State of Florida BRC personnel were pre-positioned at the Florida City Substation along with the Mobile Environmental Radiological Laboratory (MERL), Sample Preparation Van (SPV), the Field Team Supervisor (FTS) trailer, radiation survey instruments, dosimetry and miscellaneous supplies. The FTS properly inventoried all equipment and performed survey instrument pre-operational checks. An inconsistency in recorded source check parameters was observed and discussed with the FTS and MERL supervisor. While performing instrument source checks it was noticed that the values posted on the instruments for source check ranges differed from the values posted in the check lists. The FTS verified that the numbers posted in the check list were the values to use to verify instrument operation. A discussion was held with State of Florida BRC personnel to establish how these numbers were obtained and why they differed from the calibration numbers. BRC stated that they would review this practice and determine if a better method for calculating a range for source check values could be derived.

Field Operations Specialists (FOS) were pre-positioned in the area but did not arrive on scene until 0900. Three FTs were assembled and consisted of two FOS from different offices of the BRC. Each FT was issued a state law enforcement radios 800 MHz radio, satellite radio and cell phones for communication purposes. Field checks of all radios were performed between the State of Florida BRC FTs and the MERL prior to deployment. Once the Field Team Director (FTD) took command he also performed communication checks with all State of Florida BRC FTs. Each State of Florida BRC FTs was provided with the necessary equipment, plans, maps and dosimetry to perform their missions. The MERL Supervisor conducted a detailed safety and radiological briefing and updated all personnel on plant status, current conditions and potential changes prior to deploying the State of Florida BRC FTs.

All FOS personnel assigned to the State of Florida BRC FTs were knowledgeable of their radiation exposure limits and actions to take if limits were exceeded or if KI was ordered to be ingested. The FOS properly read their electronic dosimeters while in the field and logged all results on the proper forms.

The FTD maintained good contact with the State of Florida BRC FTs and kept them up-to-date on the plant status. While deployed the State of Florida BRC FTs were well managed to enable them to locate the plume. The FTD directed the State of Florida BRC FTs to take appropriate radiation measurements and air samples. The State of Florida BRC FTs was very knowledgeable of their equipment. The FOS worked together as a team in reading the SOPs while performing their tasks to ensure the tasks were completed correctly. Several air samples and radiation surveys were successfully completed and the results communicated to the FTS. All sample transfer and chain of custody paperwork was appropriately demonstrated.

For this capability, the following REP criteria were MET: 3.a.1, 3.b.1, 4.a.1, 4.a.3.

3.2.1.4 Emergency News Center (ENC)

Emergency Public Information and Warning:

The agencies of the ENC successfully demonstrated this capability by developing, coordinating and disseminating emergency public information with a sense of urgency and without undue delay. The ENC serves as the central point of contact for the distribution and release of information to the media during an emergency at TPNPP. This fixed facility offers ample space for PIO and supplemental technical staff from the utility, State of Florida, Miami-Dade County, Monroe County and Federal agencies to perform the duties required of them.

The utility, State and risk county personnel arrived in accordance with procedures. There was no pre-positioning of ENC staff for this exercise. The arriving staff conducted communication checks with their respective EOC and jurisdictional leads. All means of communication were operational and no failures were noted during this evaluation. Established protocols were followed when preparing, coordinating and disseminating

news releases. News release preparation and coordination was exemplary and was complete in both English and Spanish as required.

The ENC Manager proved to be the catalyst for the coordination between the State and County PIOs in the ENC. The process for preparing and distributing news releases varied among the PIOs. Each PIO had the capability for preparing and distributing news releases from the ENC. However, the PIOs operate independently coordinating approval of news releases through their respective jurisdictions. Both FPL and Miami-Dade County had pre-scripted English and Spanish releases.

Spanish translation of news releases and EAS messages was successfully demonstrated during the exercise. The Miami-Dade County PIOs and the FPL spokesperson were bilingual and capable of translating all written and verbal correspondence. Monroe County and the State of Florida do not have Spanish interpreters so Miami-Dade has accepted responsibility for interpreting information for them.

There were two media briefings during the exercise. Prior to each briefing, the ENC Manager and County spokespersons discussed and coordinated their message for the briefing. They discussed who would say what, and in which order the briefing would be conducted. A book containing 81 different canned slides was provided by the Emergency Broadcast Center (EBC) for the spokespersons to select from to help aid their briefings. The selected slides were then projected behind the spokespersons during their briefing.

A critical aspect of keeping the public informed is ensuring the correct information is available and erroneous information is corrected and rumors controlled. The public inquiry and rumor control function is performed in the State and county EOCs and not in the ENC. In accordance with plans, rumor control information gathering in EOCs should be passed to the PIOs in the ENC for inclusion in media briefings. These actions were not observed or evaluated during this exercise due to exercise design. The applicable citizen information numbers were provided to the public during each media briefing and on all news releases.

For this capability the following criteria were met: 1.a.1, 1.d.1, 1.e.1 and 5.b.1.

3.2.2 Risk Jurisdictions

3.2.2.1 Miami-Dade, Florida

3.2.2.1.1 Miami-Dade Emergency Operations Center (EOC)

Emergency Operations Center Management Capability Summary:

Miami-Dade Department of Emergency Management (DEM) and EOC personnel successfully demonstrated the ability to provide Multi-Agency Coordination (MAC) for an incident at TPNPP.

The EOC is a state-of-the-art facility, well equipped to support emergency operations. Overall direction and control for county response was provided by the DEM Director who also had authority to make PADs. Following the Alert declaration by TPNPP, the DEM Director relocated to the EOC and delegated management of the EOC to the DEM Deputy Director.

According to the EOPA, staff was prepositioned in the EOC. At 0828, the utility notified affected jurisdictions that the plant had declared a NOUE. Following the decision of the DEM Director to activate the EOC, the EOC Branch Directors followed procedures to alert appropriate agency representatives to respond.

Since the initial call was received during business hours, DEM staff was immediately available in the EOC. The Operations Section Chief provided a facility briefing, organization overview and WebEOC orientation to EOC staff at 0846. The Deputy Operations Section Chief briefed EOC staff about the NOUE and plant status at 0901.

The DEM Director and Deputy Director frequently instructed EOC staff to anticipate future actions if the incident escalated and to monitor events and conditions in the county which could affect their response. Frequent planning meetings were held with command and general staff to discuss response strategies. The Planning Section Chief monitored and tracked incident status.

PADs were coordinated among Miami-Dade, Monroe County and Florida BRC. These decisions were implemented by the EOC staff in a timely manner. The Operations Section Chief provided frequent briefings to EOC staff regarding incident status and decisions made by DEM Director and followed up with EOC Branch Directors to ensure proper actions were taken.

For this capability, the following REP criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2 and 3.d.1.

3.2.2.1.2 Miami-Dade Emergency Public Information and Warning Capability Summary:

Miami-Dade DEM and EOC personnel successfully demonstrated the ability to provide the media and the public with emergency information and warnings.

Emergency public information and warnings were managed by the PIO staff at the EOC as directed by the DEM Director and Deputy Director. The PIO staff was not only responsible for preparing and distributing press releases and EAS messages, but also for activating the county siren system. Appropriate pre-scripted messages in English and Spanish were selected and promptly distributed to the media and to the ENC once it was activated. The Miami-Dade County PIO and the FPL spokesperson were bi-lingual and capable of translating all written and verbal correspondence including releases for Monroe County and the State of Florida. All selected messages were coordinated with Monroe County prior to their release. Media outlets were monitored throughout the exercise on ten televisions dedicated to media monitoring.

Siren activation and release of EAS messages was accomplished in a timely manner after PADs were made by the DEM Director. Following the failure (controller inject) of four sirens to sound during the first activation, EOC staff promptly directed personnel at the Evacuation Command Post (ECP) to perform backup route alerting in the failure areas.

The process for preparing and distributing news releases varied among the PIO's. Each PIO had the capability for preparing and distributing news releases from the ENC. However, the PIO's operate independently while coordinating approval of their new releases through their respective jurisdictions.

The 311 Center fielded several public inquiries throughout the exercise. All questions were properly answered or forwarded to the appropriate agency. The 311 Center received late registrants for the special needs list, and those were forwarded to the Human Services Branch Director to ensure they were considered during the evacuation. The representative in the 311 Center maintained close and frequent contact with the PIOs regarding the nature and content of the calls received. The PIOs provided the 311 Center with all press releases and EAS messages to keep them up to date with the incident. No rumors or trends were identified during the exercise.

For this capability, the following REP criteria were met: 5.a.1, 5.a.3 and 5.b.1.

3.2.2.1.3 Miami-Dade Traffic Control Points (TCP)

Public Safety and Security Response Capability Summary:

Miami-Dade Public Safety Branch Director (PSBD) and the MDPD successfully demonstrated through discussions, the ability to set up and secure Traffic Control Points (TCP) and limit emergency worker exposure to radiation.

At Alert Emergency Classification Level (ECL), police officers are staged at EC). Information is exchanged through radio communications from officers at the ECPs to officers in the field. As directed, officers are assigned to set up and man an assigned TCP. Upon direction from the Director, officers would then ingest KI.

Police personnel tasked to support TCPs are also given a briefing on specifics such as

addresses of reception centers, methods to clear impediments, contacts for wreckers and public works facilities for signage or barrier support. Each officer is provided a copy of the TCP plan. Questions were asked about clearing impediments. Answers were direct and to the point.

When interviewed about radiation exposure control, the Miami-Dade PSBD stated officers would receive their radiation safety briefing, all required dosimetry and KI with an instruction and exposure record card. The safety briefing would cover exposure limits, as well as, the hazards of taking KI, precautions not to take KI if allergic to shell fish, and a reminder not to take the issued KI until directed to do so. Instructions would also be provided on how to fill out the exposure record card for both dosimeter readings and consumption of KI when directed.

For this capability, the following REP criteria were MET: 3.d.1 and 3.d.2.

3.2.2.1.4 Miami-Dade Backup Route Alerting

Emergency Public Information and Warning Capability Summary:

Backup Route Alerting was successfully demonstrated by interview with the Miami-Dade PSBD and representatives of the MDPD. In accordance with the EOPA, no routes were actually run and no traffic officers were interviewed

At 1135, the Miami-Dade PSBD was notified that four sirens had failed and backup route alerting was necessary. This information was passed to the MDPD representative who stated he would begin researching a book of maps depicting siren coverage. After reviewing the maps and identifying the areas not covered by overlapping sirens, the appropriate maps would be faxed to the police representative in the ECP.

A phone call would then be made out to the ECP to discuss the areas that need back up route alerting. The Miami-Dade PSBD and MCPD both understood the sense of urgency and 45 minute completion time once the failure was discovered. The need to verify prescribed message content before alerting was also discussed.

For this capability, the following REP criterion was MET: 5.a.3.

3.2.2.1.5 Waterway Warning

Public Safety and Security Response:

The Miami-Dade PSBD successfully demonstrated through interview, the ability to clear Miami-Dade waterways. The interview was conducted with the Miami-Dade PSBD and representatives from the MDPD Marine Patrol, US Coast Guard, Florida Fish and Wildlife and the Biscayne National Park Services (NPS) as agreed to in the EOPA. Miami Dade Police is the lead agency for coordinating waterway warning and evacuation.

The Public Safety Branch Director stated that emergency workers will receive their radiation safety briefing and required dosimetry, KI, instruction and exposure record cards. A safety briefing will be conducted to cover exposure limits, KI ingestion and KI precautions. Instructions for completing exposure record cards will also be included.

Coast Guard Sector Miami is responsible for broadcasting EAS messages on VHF radio channels 16 and 23. Additionally, and as available, rotary wing aircraft will be utilized with the public address system to sweep the area advising vessels to clear the area and monitor maritime safety broadcasts and National Oceanic and Atmospheric Administration National (NOAA) Weather Radio for further information. MDPD Marine Patrol and the NPS will use the public address system to advise boaters of the EAS messages, and direct boaters to the Matheson Hammock Marina.

For this capability, the following criteria were met: 5.a.1, 5.a.3, 5.b.1

3.2.2.1.6 Miami-Dade Schools

Citizen Evacuation and Shelter in Place Capability Summary:

Miami-Dade Public School Principals successfully demonstrated through interviews, the ability to evacuate or shelter in place students at the following schools: Avocado ES, Bell-Aire ES, Campbell Drive ES, Caribbean ES, Centennial MS, Chapman ES, Devon Aire K-8, Florida City ES, Gilbert Porter ES, Hammocks MS, Homestead MS, Homestead Senior HS, Irving and Beatrice Peskoe ES, Laura Saunders ES, Redland MS, Redondo ES, South Dade Adult School, South Dade HS, Whigham ES, Whispering Pines ES.

Principals at Miami-Dade Public Schools were interviewed throughout the week of January 17, 2011. They were fully aware of their responsibilities should an incident occur at the TPNPP. A Critical Incident Plan (CIP) was presented from each school. The plans included direction and control as well as appropriate coordinating actions for students and staff during an incident. School administration and staff are responsible for the response effort. Students and families are provided school response procedures at the beginning of each school year. Plans are updated and redistributed if changes become necessary.

Connect-ED is a communication system that enables school officials to quickly contact all parents, faculty and staff using designated phone numbers, with personalized voice and text messages describing an incident at the school. A pre-scripted message is loaded in the system concerning an incident at TPNPP. The message can be modified based upon school protective actions and rapidly sent to parents informing them of the changes.

Based upon plant conditions and discussions with each Principal, schools will relocate students. Every student is loaded onto school busses and transported to a designated host school where parents will pick up their children. School bus transportation is arranged through the District Superintendent. Miami-Dade Transit Authority will provide backup transportation services if there are not enough school buses available.

For this capability, the following REP criterion was MET: 3.c.2

3.2.2.2 Monroe County, Florida

3.2.2.2.1 Tavernier Emergency Operations Center

Emergency Operations Center Management Capability Summary:

Monroe County REP Administrator and EOC personnel successfully demonstrated the ability to provide MAC for an incident at TPNPP.

The Monroe County REP Administrator demonstrated capable direction and control of the REP EOC throughout the exercise. The support organizations received continuous information on the developing situation at TPNPP and queried on their response status. All of the support organizations were readily identifiable by title and telephone extension which provided easy location and contact information. Sufficient reference material was available at each workstation. Wall displays of maps and plant status were available for common viewing. There was ongoing coordination with the EMD who was deployed to the EOF and actively involved with the decision making process. Emergency workers were interviewed and knowledgeable of assigned equipment and procedures related to radiation safety. The Monroe County REP EOC staff demonstrated a high level of competence in the ability to protect the health and safety of the public and emergency workers in the event of an incident at TPNPP.

The Monroe County REP EOC was recently relocated to the Tavernier Fire Station. The facility is well equipped to support extended operations should an incident occur at TPNPP. There was adequate workspace and comfort support for personnel. A backup power system is in place with a fixed diesel generator that is regularly maintained by the county. The addition of a common display of WebEOC would enhance the dissemination of information.

For this capability, the following criteria were met: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.a.1, 3.b.1, 3.d.1, 5.a.3 and 5.b.1

Emergency Public Information and Warning Capability Summary:

Monroe County EOC personnel successfully demonstrated the ability to provide the media and the public with emergency information and warnings.

Emergency public information and warnings were managed by the PIO staff at the EOC as directed by the Monroe County EM Planner and the County EMD at the EOF. PIO staff prepared and distributed press releases and EAS messages. Appropriate pre-scripted messages were promptly distributed to the media and to the ENC once it was activated. Messages were coordinated with Miami-Dade prior to their release.

For this capability, the following REP criteria were MET: 5.a.1, and 5.b.1.

3.2.2.2.2 Ocean Reef Traffic Control Points**Public Safety and Security Response Capability Summary:**

Ocean Reef Fire Chief (ORFC), Monroe County Sheriff's Department and the Florida Highway Patrol (FHP) successfully demonstrated the ability to set up TCPs and remove any roadway impediments.

The ORFC stated citizens on the island are first warned of an incident by Reverse 911 and police officers would patrol the streets with mobile speakers as back up. He stated that Ocean Reef has 1400 homes and expected word of mouth to travel quickly. During the interview it was determined that support agencies would be available and had the appropriate equipment and resources needed to support this mission. Coordinating agency representatives understood their roles and responsibilities in support of Ocean Reef TCPs. Each agency demonstrated adequate knowledge resolve impediments to the flow of traffic and where to locate necessary resources to remove them.

The ORFC demonstrated through interview, the ability to successfully resolve a traffic impediment should an evacuation occur at the TPNPP. The ORFC, in coordination with the Monroe County Sheriff's Department and Florida Highway Patrol (FHP) stated that at SAE the Captain for the Monroe County Sheriff's Department discussed impediment removal if an evacuation were to occur due to an incident at TPNPP. He demonstrated thorough knowledge and understanding for the coordination necessary to remove impediments. Additional resources would be processed through the Tavernier EOC and FHP would assist in the evacuation as well. If necessary, mutual aid would be called upon to assist with impediment removal.

This capability was demonstrated through interview at the Tavernier EOC, in accordance with the EOPA. For this capability, the following REP criteria were MET: 3.d.1 and 3.d.2.

Section 4: Conclusion

Officials and representatives from the State of Florida; risk counties of Miami-Dade and Monroe, FPL; as well as numerous volunteers participated in this exercise. The cooperation and teamwork of the participants was evident throughout all phases of the exercise. FEMA wishes to acknowledge the efforts of the many individuals who participated and made the exercise a success. Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Additionally, others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities.

State and local emergency response organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. During this exercise, no Deficiencies or Areas Requiring Corrective Action were identified.

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Appendix A: Exercise Timeline

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken				
		SEOC	SMT	ENC	Miami-Dade County	Monroe County
Unusual Event	0815	0815	----	----	0828	0826
Alert	0908	0921	0921	1000	0921	0923
Site Area Emergency	1033	1054	1036	1046	1048	1044
General Emergency	1212	1235	1213	1215	1225	1220
Simulated Rad. Release Started	1200	1235	1236	1232	1234	1235
Simulated Rad. Release Terminated	1230	1315	1305	Ongoing	Ongoing	1303
Facility Declared Operational	1055	1020	1032	1016	1000	0950
Declaration of Emergency: State	----	1049	1120	1119	----	----
Declaration of Emergency: Miami-Dade	----	----	----	1100	1100	----
Declaration of Emergency: Monroe	----	----	----	1122	----	1100
State Control Transfer to IMT	----	1102	1102	----	----	----
Exercise Terminated	1339	1333	1330	1339	1335	1330
Early Precautionary News Release: Stay Tuned Alert		----	1015	1015	1015	1015
1st Protective Action Decision: Stay Tuned SAE		----	1100	1100	1100	1100
1st Siren Activation		----	1105	1105	1105	1105
1st EAS Message		----	1110	1110	1110	1110
2nd Protective Action Decision: Miami-Dade: Evacuate 2, 3, 4, 5, 6, 7; Shelter in Place 8, 9; 10 mile marine blockade Monroe: Shelter in Place 10		----	1243	1243	1243	1243
2nd Siren Activation		----	1255	1255	1255	1255
2nd EAS Message		----	1255	1255	1255	1255
KI Administration Decision: Emergency Workers and General Public in Evacuation Areas		----	1243	1243	1243	1243

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Appendix B: Table 2

DATE AND SITE: February 23, 2011 – Turkey Point Nuclear Power Plant

ELEMENT/Sub-Element	FLDEM	FL BRH	Miami-Dade County	Monroe County
1. EMERGENCY OPERATIONS MANAGEMENT				
1.a.1. Mobilization	M	M	M	M
1.b.1. Facilities	M			M
1.c.1. Direction and Control	M	M	M	M
1.d.1. Communications Equipment	M	M	M	M
1.e.1. Equipment & Supplies to Support Operations	M	M	M	M
2. PROTECTIVE ACTION DECISION MAKING				
2.a.1. Emergency Worker Exposure Control	M	M	M	M
2.b.1. Rad Assessment & PARs Based on Available Information		M		
2.b.2. PARs & PADs for the General Public	M	M	M	M
2.c.1. Protective Action Decisions for Special Populations			M	
2.d.1. Rad Assessment & Decision Making for Ingestion Exposure				
2.e.1. Rad Assessment & Decision Making for Relocation, Re-entry & Return				
3. PROTECTIVE ACTION IMPLEMENTATION				
3.a.1. Implementation of Emergency Worker Control		M	M	M
3.b.1. Implementation of KI Decisions		M	M	M
3.c.1. Implementation of PADs for Special Populations			M	
3.c.2. Implementation of PADs for Schools			M	
3.d.1. Implementation of Traffic and Access Control			M	M
3.d.2. Impediments to Evacuation and Traffic & Access Control			M	M
3.e.1. Implementation of Ingestion Decisions Using Adequate Info				
3.e.2. Implementation of IP Decisions Showing Strategies & Instructional Materials				
3.f.1. Implementation of Relocation, Re-entry & Return Decisions				
4. FIELD MEASUREMENT and ANALYSIS				
4.a.1. Plume Phase Field Measurement & Analysis Equipment		M		
4.a.2. Plume Phase Field Measurement & Analysis Management		M		
4.a.3. Plume Phase Field Measurements & Analysis Procedures		M		
4.b.1. Post Plume Field Measurement & Analysis				
4.c.1. Laboratory Operations		M		
5. EMERGENCY NOTIFICATION & PUBLIC INFO				
5.a.1. Activation of Prompt Alert and Notification	M		M	M
5.a.3. Activation of Prompt Alert and Notification Backup Alert and Notification			M	M
5.b.1. Emergency Info and Instructions for the Public and the Media	M		M	M
6. SUPPORT OPERATIONS/FACILITIES				
6.a.1. Monitoring and Decon of Evacuees and EWs and Registration of Evacuees				
6.b.1. Monitoring and Decon of Emergency Worker Equipment				
6.c.1. Temporary Care of Evacuees				
6.d.1. Transport and Treatment of Contaminated Injured Individuals				

LEGEND: A = ARCA M = Met D = Deficiency

Appendix C: Exercise Evaluator and Assignments

TURKEY POINT NUCLEAR POWER PLANT			FEBRUARY 23, 2011	
JURISDICTION	SEQUENCE	EVALUATOR	ORG	CRITERION
State of Florida (SEOC)	In Sequence	Kevin Keys Odis Spencer	FEMA	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 5.a.1, 5.b.1
FL SMT LEAD (Miami)	In Sequence	Obhie Robinson	FEMA	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 5.a.1, 5.b.1
FL SMT	In Sequence	Gerald McLemore	FEMA	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 5.a.1, 5.b.1
Emergency News Center (ENC) Lead	In Sequence	Robert Spence Ron Shaw OJT	FEMA	1.a.1, 1.e.1, 5.b.1
ENC	In Sequence	JT Ackerman	FEMA	1.a.1, 1.e.1, 5.b.1
Public Information – Spanish Language ENC	In Sequence	Alex Sera	FEMA	5.b.1
Dose Assessment	In Sequence	Robert Trojanowski	NRC	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 3.a.1, 4.a.2
Emergency Operations Facility	In Sequence	Robert Trojanowski	NRC	1.c.1, 1.d.1, 1.e.1, 2.b.1
Mobile Laboratory	In Sequence	Brad McRee	FEMA	1.e.1, 3.a.1, 4.c.1
Field Team 1 (Lead)	In Sequence	Joe Harworth	FEMA	1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.1, 4.a.2, 4.a.3
Field Team 2	In Sequence	Marcy Campbell	FEMA	1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.1, 4.a.2, 4.a.3
JURISDICTION	SEQUENCE	EVALUATOR	ORG	CRITERION
Miami/Dade County				
Emergency Operations Center Lead	In Sequence	John Fill	FEMA	2.a.1, 2.b.2, 2.c.1
Emergency Operations Center	In Sequence	Walt Cushman	FEMA	1.a.1, 1.c.1, 1.d.1, 1.e.1
Emergency Operations Center	In Sequence	Matt Bradley	FEMA	3.a.1, 3.b.1, 3.c.1, 3.c.2
Water Clearance	In Sequence, by interview in EOC	Walt Cushman	FEMA	5.a.1, 5.a.3, 5.b.1
Traffic Control Points	In Sequence, by interview in EOC	Matt Bradley	FEMA	3.d.1, 3.d.2
Protective Action for Schools – Lead (#1)	OOS	Lisa Rink	FEMA	3.c.2
Protective Action for	OOS	Robert Spence	FEMA	3.c.2

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JURISDICTION	SEQUENCE	EVALUATOR	ORG	CRITERION
Schools (#2)				
Protective Action for Schools (#3)	OOS	Gerald Mclemore	FEMA	3.c.2
JURISDICTION	SEQUENCE	EVALUATOR	ORG	CRITERION
Monroe County				
Emergency Operations Center Lead	In sequence	Jon Sandberg	FEMA	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1,
Emergency Operations Center	In sequence	Lorenzo Lewis	FEMA	2.a.1, 2.b.2, 3.a.1, 3.b.1, 5.a.3
County Warning Point (Ocean Reef Monroe County) Traffic Control Points	In Sequence, by interview in EOC	Lisa Rink	FEMA	5.a.1, 5.b.1 3.d.1, 3.d.2

Appendix D: Acronyms

Acronym	Meaning
AAR	After Action Report
ALC	Annual Letter of Certification
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio for Emergency Services
BRC	Bureau of Radiation Control
CFR	Code of Federal Regulations
CHRRMS	Containment High Range Radiation Monitor
DHS	Department of Homeland Security
DRD	Direct-Reading Dosimeter
DSS	Department of Social Services
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
ECP	Evacuation Command Post
EEG	Exercise Evaluation Guide
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMS	Emergency Medical Services
ENC	Emergency News Center
ENF	Emergency Notification Form
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
ENC	Emergency News Center
ENN	Emergency Notification Network
EOPA	Extent of Play Agreement
EPA	U.S. Environmental Protection Agency
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERP	Emergency Response Plan
ESF	Emergency Support Function
EW	Emergency Worker
EWD	Emergency Worker Decontamination

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Acronym	Meaning
FEIL	Florida Emergency Information Line
FEMA	Federal Emergency Management Agency
FHP	Florida Highway Patrol
FL DEM	Florida Division of Emergency Management
FMT	Field Monitoring Team
FOS	Field Operations Specialist
FOUO	For Official Use Only
FPL	Florida Power and Light
FRMAC	Federal Radiological Monitoring and Assessment Center
FT	Field Team
FTD	Field Team Director
FTS	Field Team Supervisor
GAR	Governor's Authorized Representative
GE	General Emergency
GIS	Geographic Information System
GM	Geiger-Muller (detector)
GPS	Geographic Positioning System
HAZMAT	Hazardous Materials
HSEEP	Homeland Security Exercise and Evaluation Program
HQ	Headquarters
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IOF	Initial Operations Facility
IP	Improvement Plan
IPZ	Ingestion Pathway Zone
JIC	Joint Information Center
KI	Potassium Iodide
LE	Law Enforcement
LP-1	Local Primary (EAS Radio Station)
MAC	Multi-Agency Coordination
MACC	Multi-Agency Coordination Center
MDPD	Miami-Dade Police Department
MERL	Mobile Environmental Radiological Laboratory

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Acronym	Meaning
MOC	Mobile Operations Center
MOU	Memorandum of Understanding
mR	milliroentgen
mR/h	milliroentgen per hour
NAWAS	National Warning System
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NOUE	Notification of Unusual Event
NPP	Nuclear Power Plant
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, " <i>Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,</i> " November 1980
OC	Operations Chief
OOS	Out of Sequence
OP	Operational Procedure
ORO	Offsite Response Organization
PA	Public Announcement
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimetry
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RCS	Reactor Coolant System
REA	Radioactive Emergency Area
REM	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
R/h	Roentgen(s) per hour

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Acronym	Meaning
RO	Radiological Officer
RWST	Refueling Water Storage Tank
SAE	Site Area Emergency
SPV	Sample Procedure Van
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center
SERT	State Emergency Response Team
SMRAP	Southern Mutual Radiological Assistance Plan
SMT	State Management Team
SOP	Standard Operating Procedure
TCL	Target Capabilities List
TCP	Traffic Control Point
THD	Technological Hazard Division
TLD	Thermoluminescent dosimeter
TPNPP	Turkey point Nuclear Power Plant
USDA	U.S. Department of Agriculture
UTL	Universal Task List
VFD	Volunteer Fire Department

Appendix E: Exercise Locations

Exercise Locations	Out of Sequence Locations
<p>Florida Division of Emergency Management 2555 Shumard Oak Boulevard Tallahassee, Florida 32399</p> <p>FP&L EOF 9250 West Flagler Street Miami, FL 33174 (305) 552-3552</p> <p>Miami-Dade County EOC 9300 NW 41st Street Miami, FL 33178 (305) 468-5400</p> <p>Monroe County EOC 151 Marine Avenue Tavernier, FL 33070 (305) 852-9860</p>	<p>Florida City ES 364 NW 6TH AVENUE FLORIDA CITY, FL 3303 (305)247-4676</p> <p>Homestead Senior HS 2351 SE 12TH AVENUE HOMESTEAD, FL 33034 (305)245-7000</p> <p>Laura Saunders ES 505 SW 8 STREET HOMESTEAD, FL 33030 (305)247-3933</p> <p>Homestead MS 650 NW 2ND AVENUE HOMESTEAD, FL 33030 (305)247-4221</p> <p>South Dade Adult School 109 NE 8TH STREET HOMESTEAD, FL 33030 (305)248-5723</p> <p>Redondo ES 18480 SW 304 STREET HOMESTEAD, FL 33030 (305)247-5943</p> <p>Gilbert Porter ES 15851 SW 112 STREET MIAMI, FL 33196 (305)382-0792</p>

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2011 Turkey Point Nuclear Power Plant REP Exercise

Irving and Beatrice Peskoe ES
29035 SW 144TH AVENUE
HOMESTEAD, FL 33033
(305)242-8340

Avocado ES
16969 SW 294TH STREET
HOMESTEAD, FL 33030
(305)247-4942

Chapman ES
27190 SW 140TH AVENUE
HOMESTEAD, FL 33032
(305)245-1055

South Dade HS
28401 SW 167TH AVENUE
MIAMI-DADE, FL 33030
(305)247-4244

YMAACD@MacArthur South
13990 SW 264TH STREET
NARANJA, FL 33032
(305)258-7200

Leisure City
14950 SW 288TH STREET
HOMESTEAD, FL 33033
(305)247-5431

Hammocks MS
9889 HAMMOCKS BOULEVARD
MIAMI, FL 33196
(305)385-0896

Campbell Drive ES
15790 SW 307TH STREET
HOMESTEAD, FL 33033
(305)245-0270

Bell-Aire ES
10205 SW 194TH STREET
MIAMI, FL 33157
(305)233-5401

Whispering Pines ES
18929 SW 89TH ROAD
MIAMI, FL 33157
(305)238-7382

Whigham ES
21545 SW 87 AVENUE
MIAMI, FL 33189
(305)234-4840

Centennial MS
8601 SW 212TH STREET
MIAMI, FL 33189
(305)235-1581

Caribbean ES
11990 SW 200 STREET
MIAMI, FL 33177
(305)233-7131

Redland MS
16001 SW 248 STREET
HOMESTEAD, FL 33031
(305)247-6112

Devon Aire K-8
10501 SW 122ND AVENUE
MIAMI, FL 33186
(305)274-7100

ES-Elementary School, MS-Middle School, High School

Appendix F: Exercise Planning Team Leadership

Agency	Name
Florida Division of Emergency Management	Tracy Poole Roger Rankin
FL BRC	Charlie Adams
Miami-Dade Emergency Management	Niel Batista
Monroe County Emergency Management	Irene Toner Vince Kalson
FEMA Region IV	Randall Hecht Lisa Rink
Florida Power and Light	Don Mothena Brian Carberry Mitch Epstein